CONSTRUCTING URBANISM

Relating the Construction of Architecture to the Process of Urbanization in the Middle Bronze Age Southern Levant

APPENDIX

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APPENDIX 1: MUD-BRICK SAMPLE DATA

Appendix 1 contains all of the data regarding the brick samples I took from the case-study sites. This data includes basic observations (i.e. colour when dry, colour when moist, dimensions of bricks) and detailed results from the following laboratory analyses, which I describe in Chapter 6: magnetic susceptibility, loss on ignition, microartefact, pH levels, phosphates and grain-size. Based on the results of these analyses, I interpreted a number of 'brick types' at each site, which are displayed in Table 1.

Site	Brick Type	Colour Group	MagSus	OM	Micro	Sand	Silt	Clay
Pella	Light A	Pale Brown	L	M	M	L	M/H	M
Pella	Light B	Pink	L	L	L	M/H	L	H
Pella	Light C	Yellowish Brown	L	H	M	M	M	L
Pella	Dark	Brown	H	M	H	M/H	M/L	M/L
Megiddo	Light A	Pale Yellow	L	L	L	H	L	L
Megiddo	Light B	Light Gray/Yellowish Brown	L	H	M	L	L	H
Megiddo	Light C	Light Gray	M	M/H	M	M	M	M
Megiddo	Light D	Very Pale Brown	L	L	L	H	M/L	M
Megiddo	Dark	Brown/Gray	H	M/H	H	M/L	H	M/L
Dan	Light	Light Brown	H	L	H	M/H	M	L
Dan	Medium	Strong Brown	L	M/H	M	M	M	L
Dan	Dark	Red	M	H	M/L	L	M	H

Table 1. Brick types by site and their characteristics. Columns: MagSus = magnetic susceptibility, OM = organic material, Micro = anthropogenic microartifacts. Values: L = low content, M = medium content, H = high content.

Appendix 1.1 contains all of the results of the analyses, which I arrange by site, and sub-divide by the different types of analysis, with an increasing level of detail. Appendices 1.2 – 1.4 provide all of the data relevant to the magnetic susceptibility, loss on ignition and microartefact analyses, respectively. In the following tables and charts, I have included five samples from Dan that did not feature in my study, and which derive from fills of the MB earthen rampart (DAN/11/K/R/A, DAN/11/K/R/B and DAN/11/K/R/C) and EB bricks (DAN/11/T3/W/A and DAN/11/T3/W/B). Likewise, I have included two samples from Megiddo that did not feature in my study, and which derive from a mid-Holocene clay sediment in the Jezreel Valley near the tell (MEG/10/BB-104/A), and an LB brick from a domestic context in Area K (MEG/10/K/020A). Although I processed these samples, they must await further research beyond the scope of the present study. Finally, Appendix 1.5 comprises a blank sediment analysis form, which I created to record my laboratory work.

1.1 Sample Data by Case Study

Dan

Tables

Sample	Colour (Dry)	Colour (Moist)	X_{LF} ($10^{-6}m^3kg^{-1}$)	% OM	pH	P Score	Micro	Sand	Silt	Clay	Dimensions (cm)
DAN/11/K/G/A	7.5YR 5/6 Strong Brown	5YR 3/4 Dark Reddish Brown	5.142439024	8.8	7.33	22	4	62.88	33.24	3.88	42 x 13
DAN/11/K/G/B	10YR 6/3 Pale Brown	10YR 3/4 Dark Yellowish Brown	5.435594887	7.4	7.61	20	6	58.29	37.18	4.53	
DAN/11/K/G/C	7.5YR 5/6 Strong Brown	5YR 4/4 Reddish Brown	2.173	9.6	7.74	21	5	49.28	41.93	8.79	
DAN/11/K/G/D	5YR 4/6 Yellowish Red	5YR 3/3 Dark Reddish Brown	3.163690476	9.4	7.73	16	5	48.94	41.50	9.55	
DAN/11/K/G/E	7.5YR 6/4 Light Brown	7.5YR 3/3 Dark Brown	6.101101101	8.4	7.82	22	6	40.69	54.85	4.46	10.00
DAN/11/K/G/F	7.5YR 5/6 Strong Brown	5YR 3/3 Dark Reddish Brown	5.165680473	8.6	7.91	22	4	48.91	42.09	9.00	mortar
DAN/11/K/G/G	5YR 4/6 Yellowish Red	5YR 3/4 Dark Reddish Brown	5.51445663	11.2	7.80	18	3	24.50	45.72	29.78	
DAN/11/K/G/H	7.5YR 5/6 Strong Brown	7.5YR 4/6 Strong Brown	2.087388282	9.6	7.79	22	3	29.71	51.17	19.12	
DAN/11/K/W/I	7.5YR 6/4 Light Brown	7.5YR 3/4 Dark Brown	6.338932806	8.4	8.08	16	4	53.53	38.59	7.88	40 x 10
DAN/11/K/W/J	5YR 4/6 Yellowish Red	5YR 3/4 Dark Reddish Brown	4.308300395	8.8	7.70	15	2	19.31	46.30	34.40	10.00
DAN/11/K/G/K	7.5YR 5/4 Brown	7.5YR 3/4 Dark Brown	6.099403579	6.8	9.21	27	2	52.93	39.44	7.63	facing
DAN/11/K/R/A	10YR 8/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.215628091	1.8	8.25	13	0	42.73	40.73	16.53	earth
DAN/11/K/R/B	10YR 5/4 Yellowish Brown	10YR 3/4 Dark Yellowish Brown	2.449404762	9.2	8.07	21	0	47.78	47.09	5.12	earth
DAN/11/K/R/C	10YR 6/3 Pale Brown	10YR 3/3 Dark Brown	3.949354518	8.8	8.09	22	1	62.74	33.99	3.26	earth
DAN/11/T3/W/A	7.5YR 6/4 Light Brown	7.5YR 3/4 Dark Brown	4.938308458	7.6	8.96	22	3	56.85	36.12	7.03	
DAN/11/T3/W/B	10YR 5/4 Yellowish Brown	10YR 3/4 Dark Yellowish Brown	3.21	12.0	8.93	22	2	56.20	36.70	7.10	

Table 2. Master table of sample data from Dan containing a summary of the results of all the analytical procedures. Columns:1 = sample name, 2 = colour when dry, 3 = colour when moist, 4 = magnetic susceptibility, 5 = percentage of organic material (LOI), 6 = pH level, 7 = phosphate score, 8 = score of anthropogenic microartefacts, 9 = percentage of sand, 10 = percentage of silt, 11 = percentage of clay, 12 = dimensions of brick in context (where possible).

Sample	Colour (Dry)		Sample	Colour (Moist)
DAN/11/K/R/A	10YR 8/3 Very Pale Brown		DAN/11/K/R/A	10YR 6/4 Light Yellowish Brown
DAN/11/K/G/B	10YR 6/3 Pale Brown		DAN/11/K/G/C	5YR 4/4 Reddish Brown
DAN/11/K/R/C	10YR 6/3 Pale Brown			
			DAN/11/K/G/H	7.5YR 4/6 Strong Brown
DAN/11/K/G/E	7.5YR 6/4 Light Brown			
DAN/11/K/W/I	7.5YR 6/4 Light Brown		DAN/11/K/G/B	10YR 3/4 Dark Yellowish Brown
DAN/11/T3/W/A	7.5YR 6/4 Light Brown		DAN/11/K/R/B	10YR 3/4 Dark Yellowish Brown
			DAN/11/T3/W/B	10YR 3/4 Dark Yellowish Brown
DAN/11/K/R/B	10YR 5/4 Yellowish Brown			
DAN/11/T3/W/B	10YR 5/4 Yellowish Brown		DAN/11/K/G/F	5YR 3/3 Dark Reddish Brown
			DAN/11/K/G/A	5YR 3/4 Dark Reddish Brown
DAN/11/K/G/K	7.5YR 5/4 Brown		DAN/11/K/G/D	5YR 3/3 Dark Reddish Brown
			DAN/11/K/G/G	5YR 3/4 Dark Reddish Brown
DAN/11/K/G/A	7.5YR 5/6 Strong Brown		DAN/11/K/W/J	5YR 3/4 Dark Reddish Brown
DAN/11/K/G/C	7.5YR 5/6 Strong Brown			
DAN/11/K/G/F	7.5YR 5/6 Strong Brown		DAN/11/K/G/E	7.5YR 3/3 Dark Brown
DAN/11/K/G/H	7.5YR 5/6 Strong Brown		DAN/11/K/W/I	7.5YR 3/4 Dark Brown
			DAN/11/K/G/K	7.5YR 3/4 Dark Brown
DAN/11/K/G/G	5YR 4/6 Yellowish Red		DAN/11/T3/W/A	7.5YR 3/4 Dark Brown
DAN/11/K/W/J	5YR 4/6 Yellowish Red		DAN/11/K/R/C	10YR 3/3 Dark Brown
DAN/11/K/G/D	5YR 4/6 Yellowish Red			

Table 3. Dan samples arranged by colour.

Charts

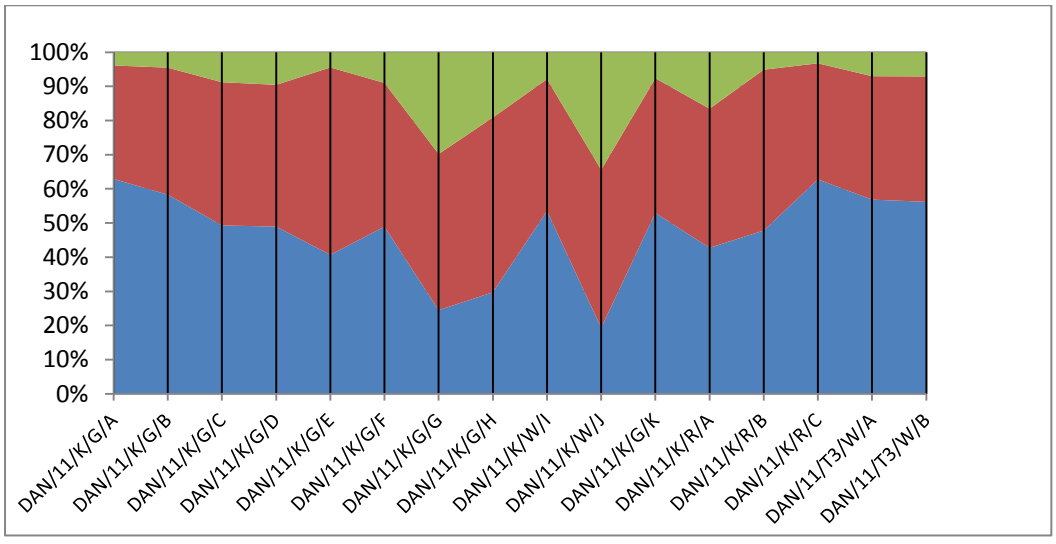

Figure 1. Grain-size precentages of Dan mud-brick samples (Green = Clay, Red = Silt, Blue = Sand).

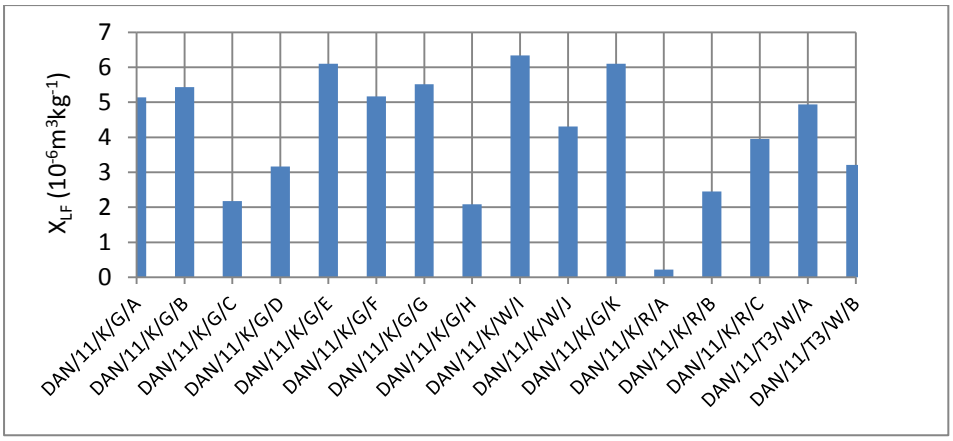

Figure 2. Mass-specific magnetic susceptibility of Dan mud-brick samples.

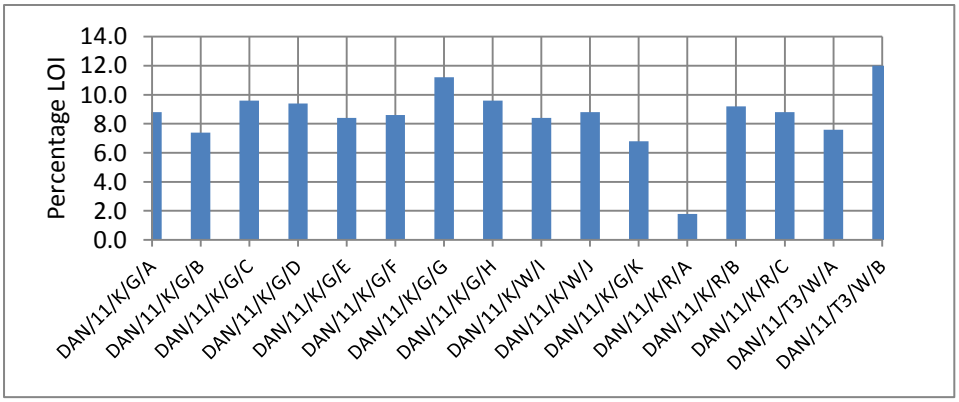

Figure 3. Percentage of organic material in Dan samples, based on LOI.

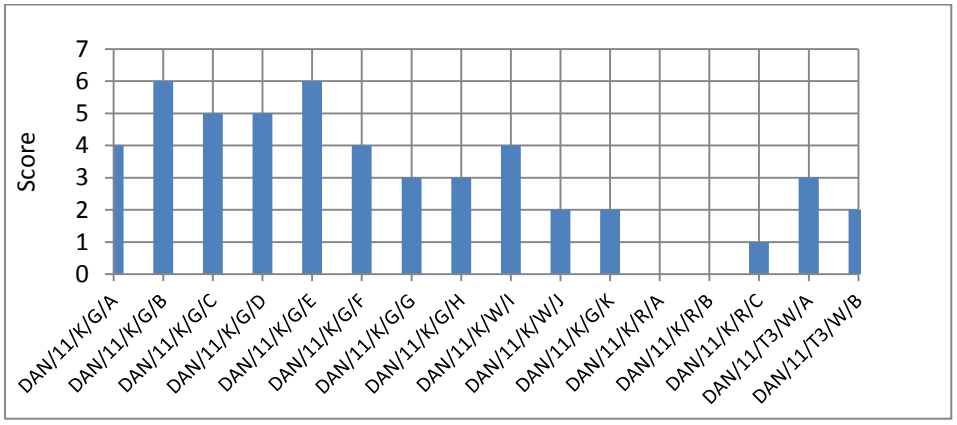

Figure 4. Score of anthropogenic microartefacts in Dan samples.

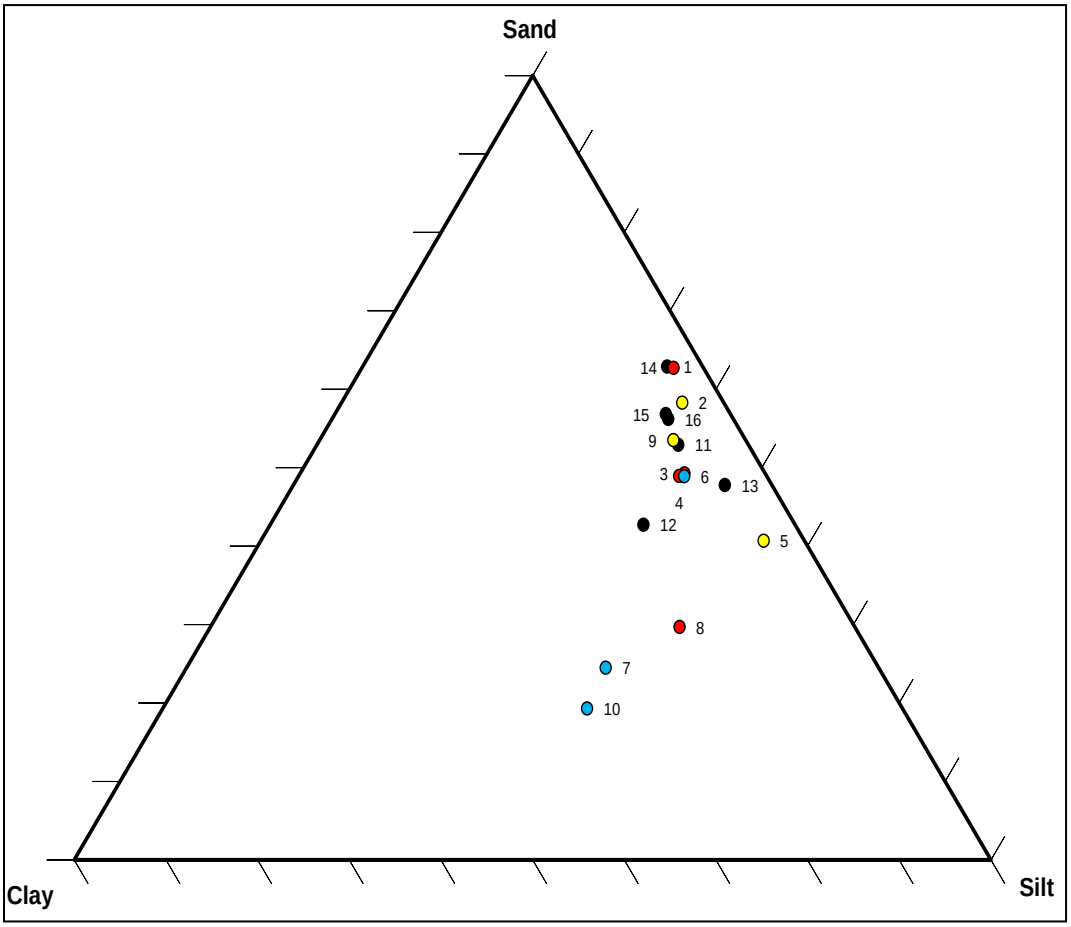

Figure 5. Ternary graph of MB bricks at Dan showing the distribution of grain-size percentages of each sample. Brick types are distinguished by colour (yellow = Light; red = Medium; and blue = Dark). Black points indicate samples of sediment taken from the MB rampart in Area K.

Statistical descriptions

Histograms

In the following charts, note the ‘mean’ and ‘standard deviation’ in the upper right.

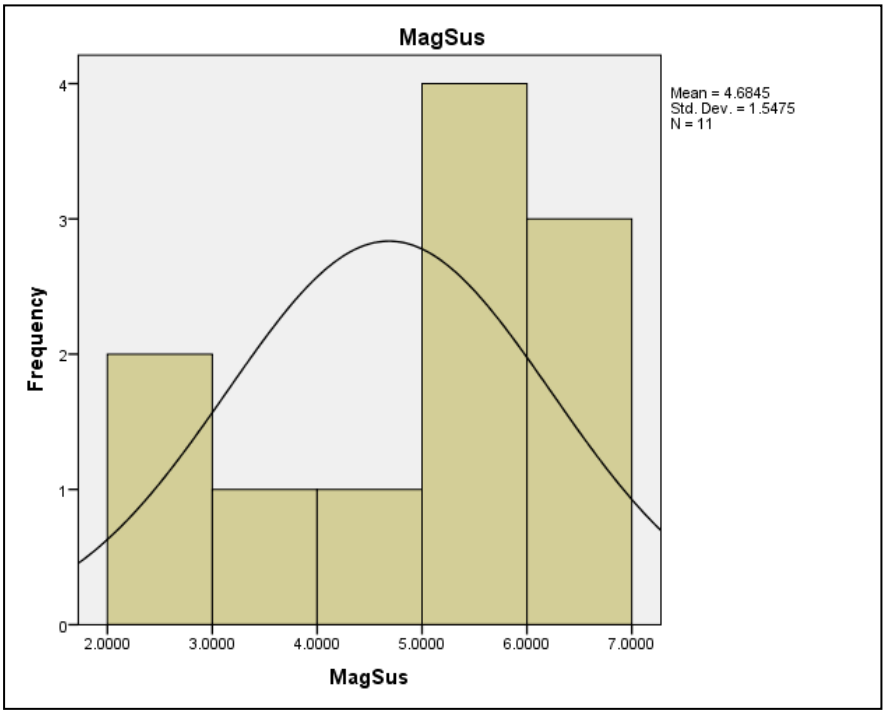

Figure 6. Histogram showing the frequencies of mass-specific magnetic susceptibility for the Dan samples.

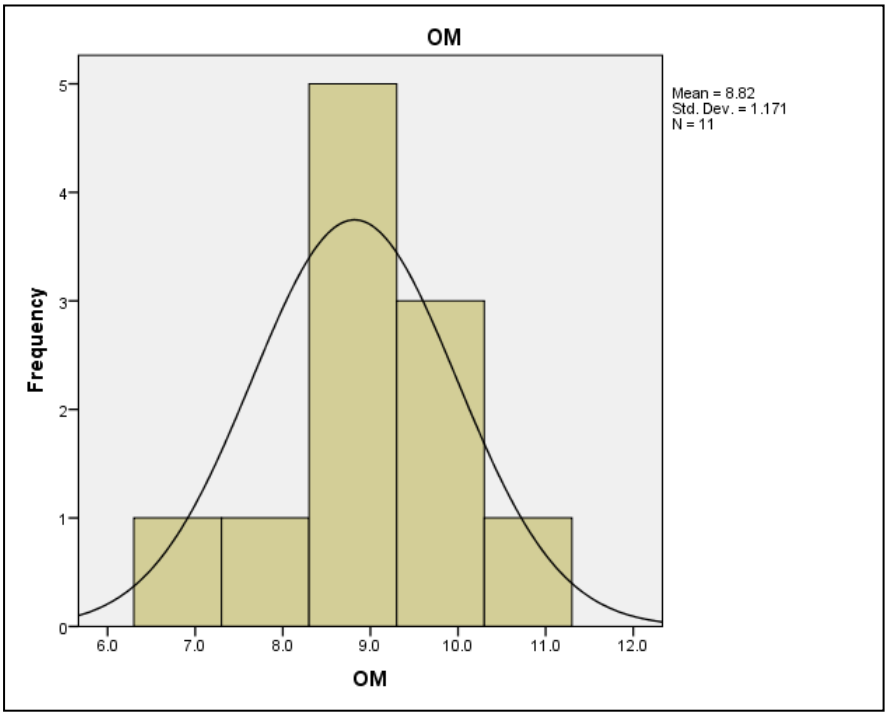

Figure 7. Histogram showing the frequencies of the percentage of organic material for the Dan samples.

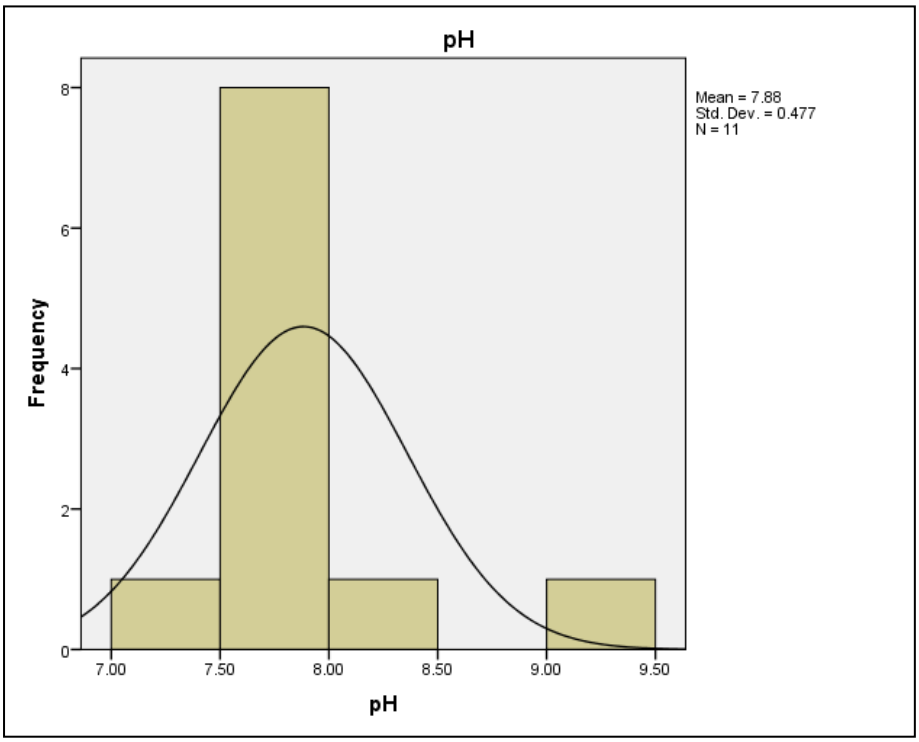

Figure 8. Histogram showing the frequencies of pH levels for the Dan samples.

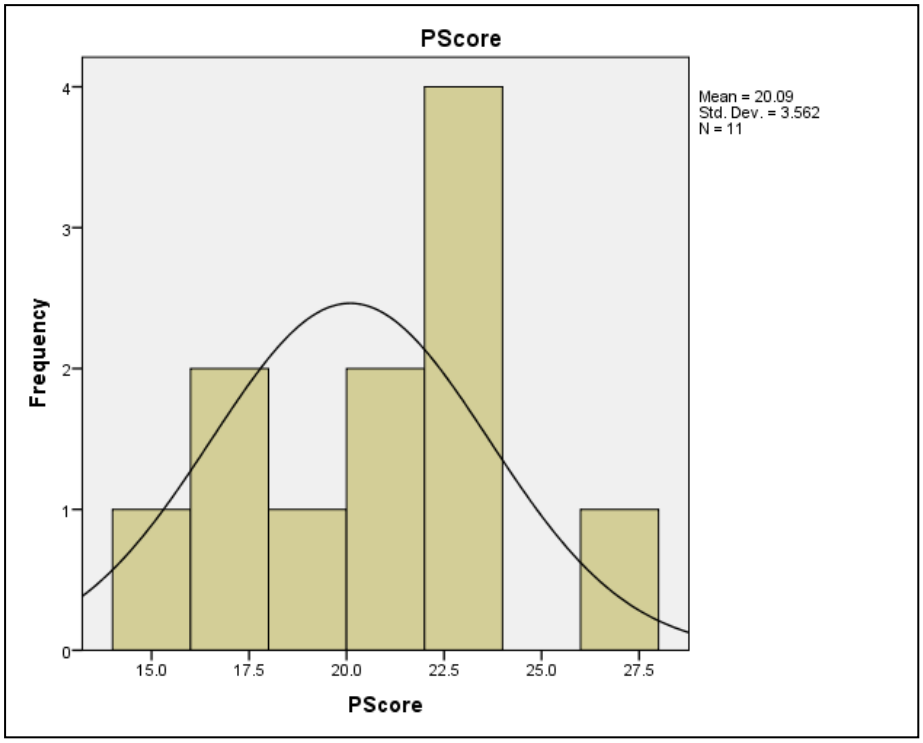

Figure 9. Histogram showing the frequencies of phosphate scores for the Dan samples.

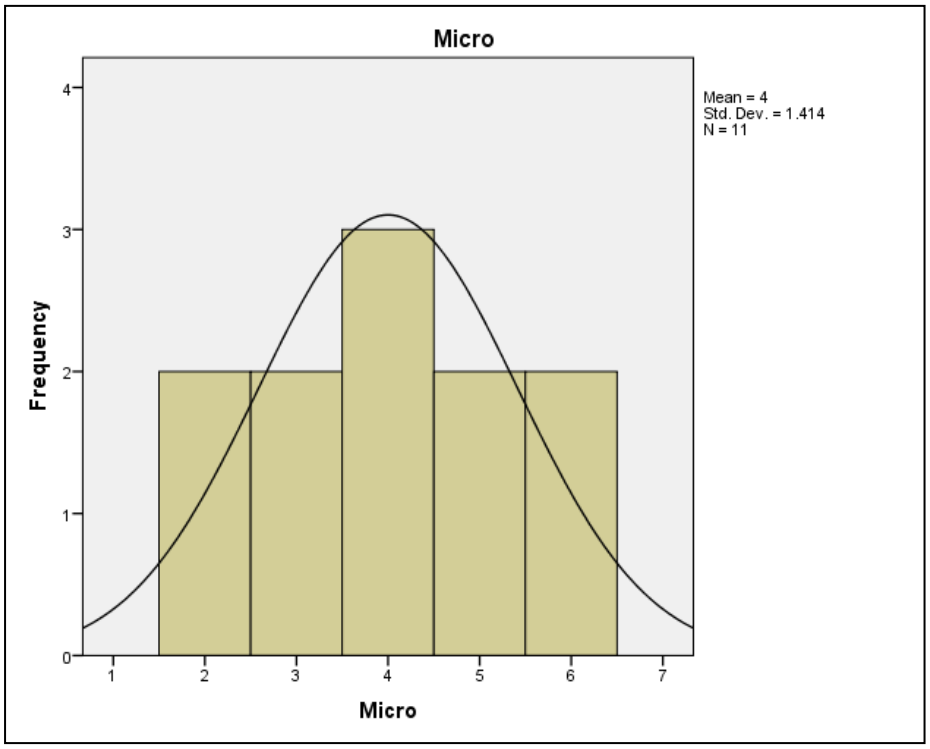

Figure 10. Histogram showing the frequencies of anthropogenic microartefact scores for the Dan samples.

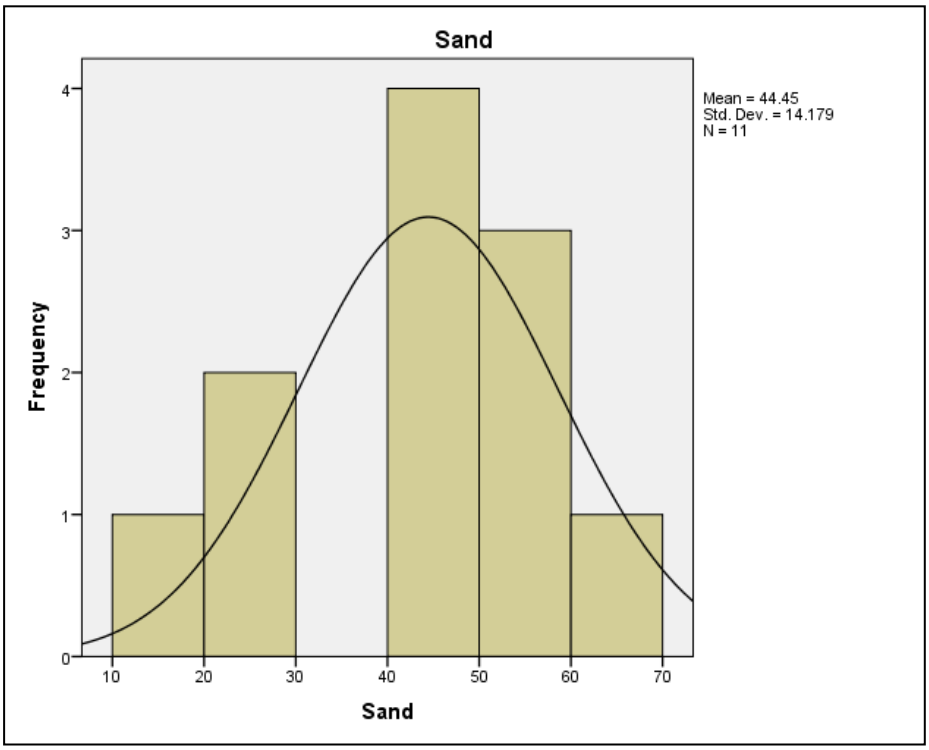

Figure 11. Histogram showing the frequencies of the percentage of sand particles for the Dan samples.

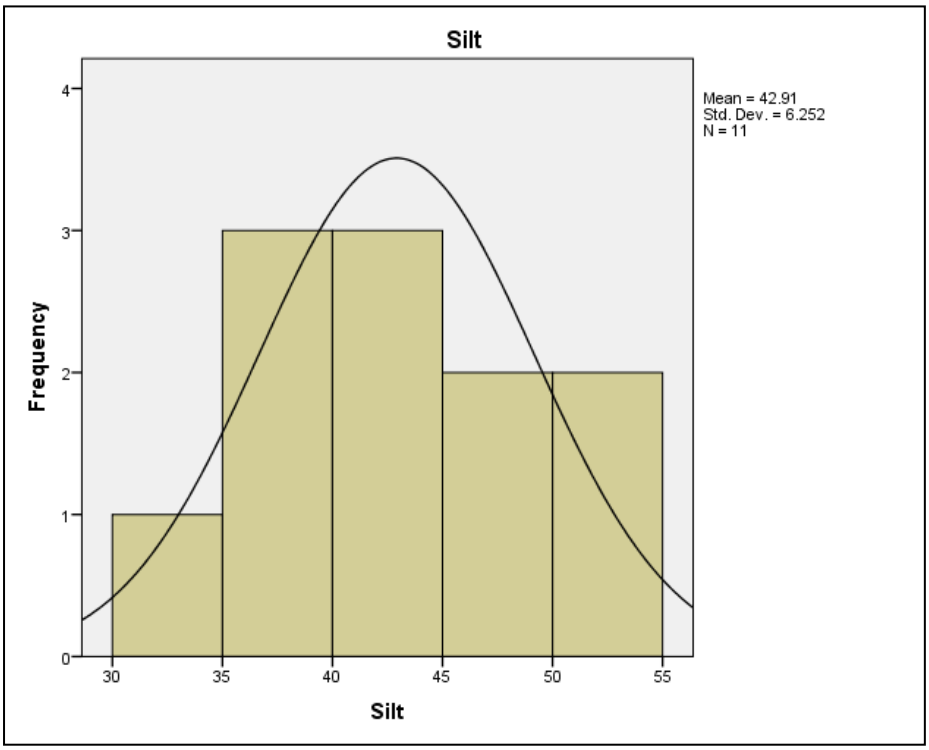

Figure 12. Histogram showing the frequencies of the percentage of silt particles for the Dan samples.

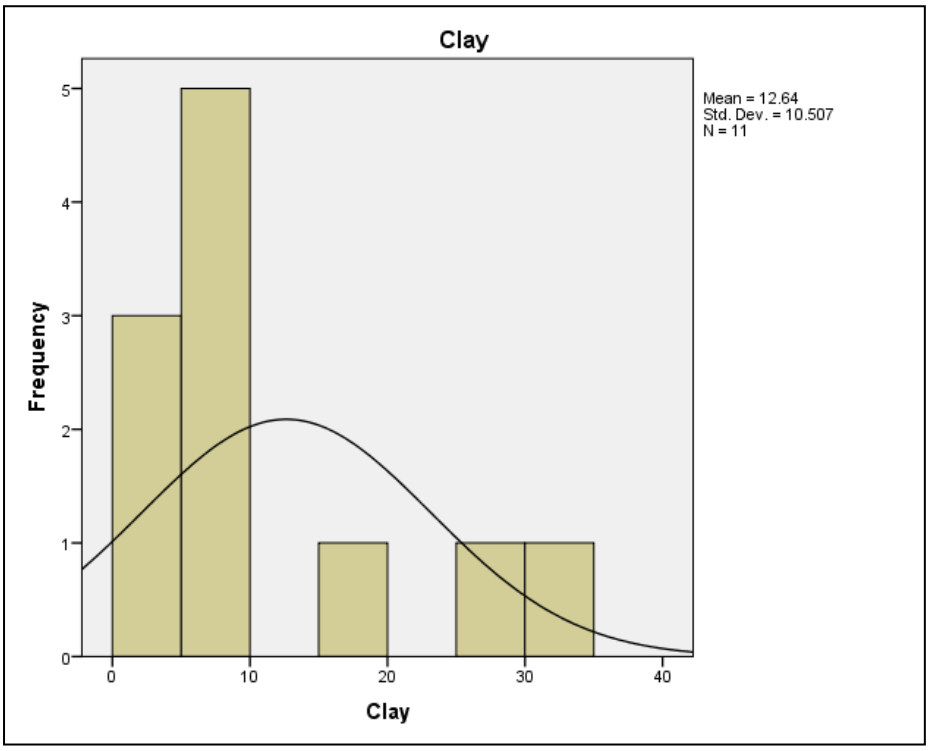

Figure 13. Histogram showing the frequencies of the percentage of clay particles for the Dan samples.

Scatter plots

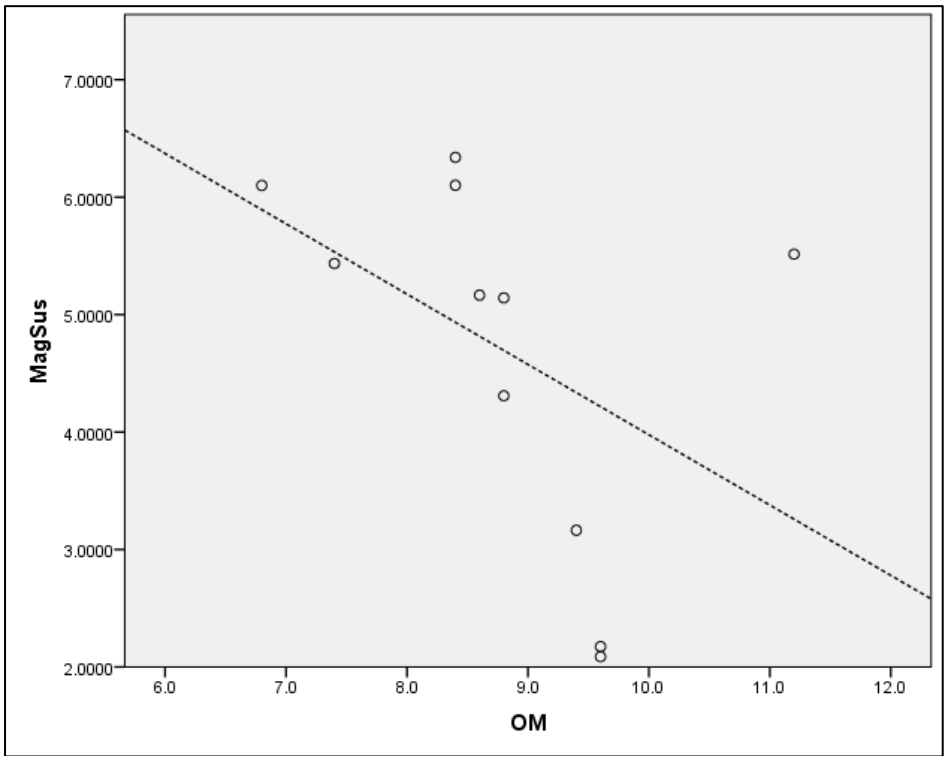

Figure 14. Box-plot showing the correlation between mass-specific magnetic susceptibility and percentage of organic material for the Dan samples.

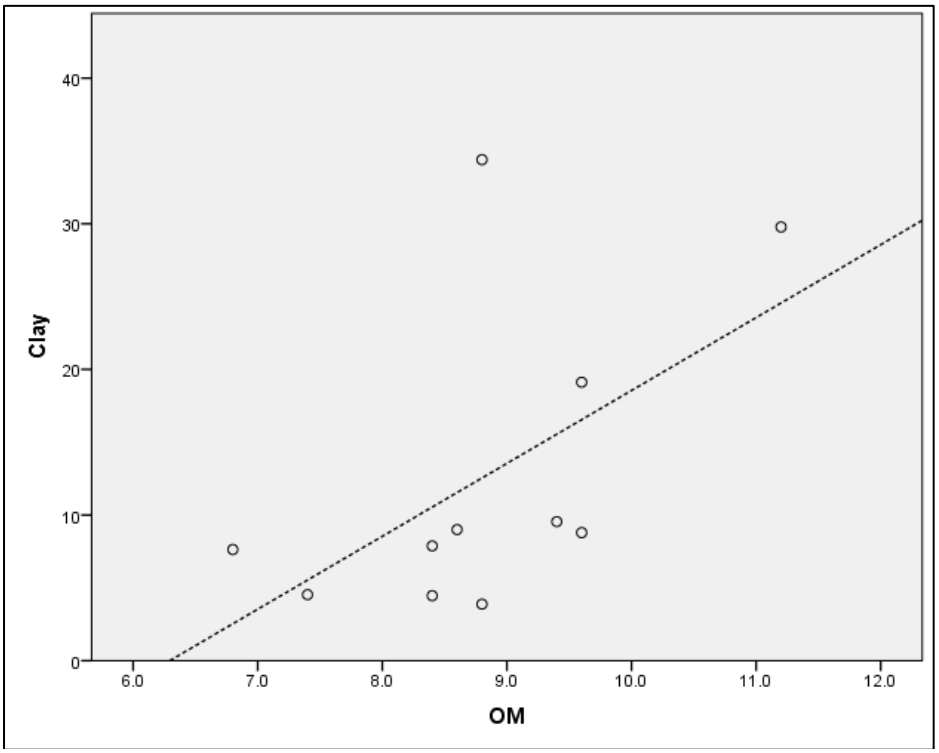

Figure 15. Box-plot showing the correlation between the percentage of clay particles and percentage of organic material for the Dan samples.

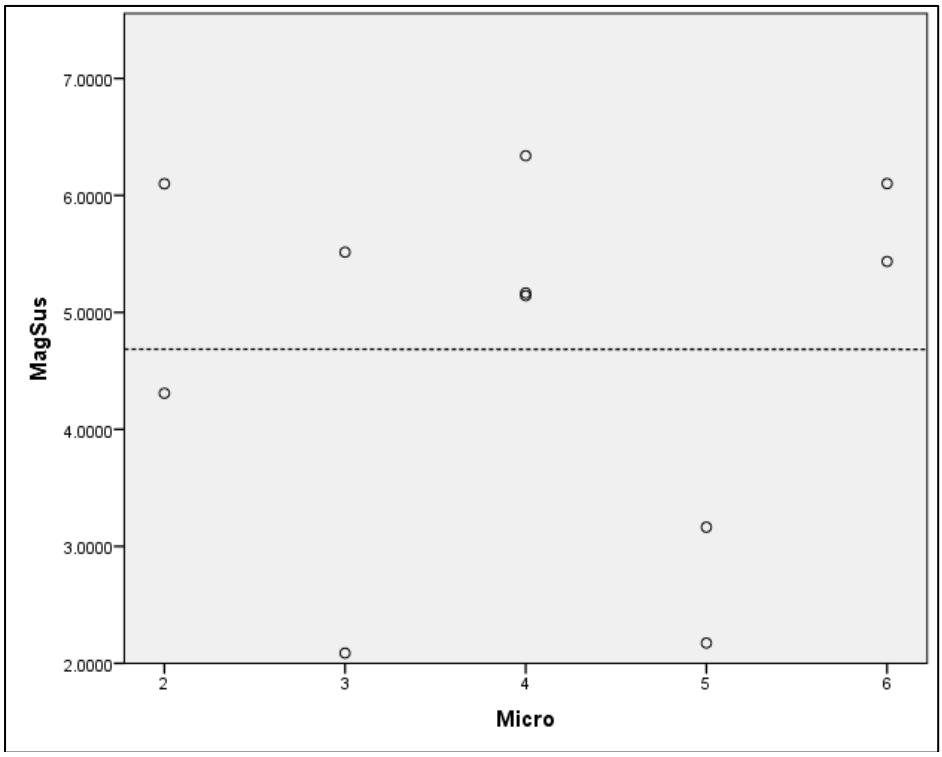

Figure 16. Box-plot showing the correlation between mass-specific magnetic susceptibility and anthropogenic microartefact scores for the Dan samples.

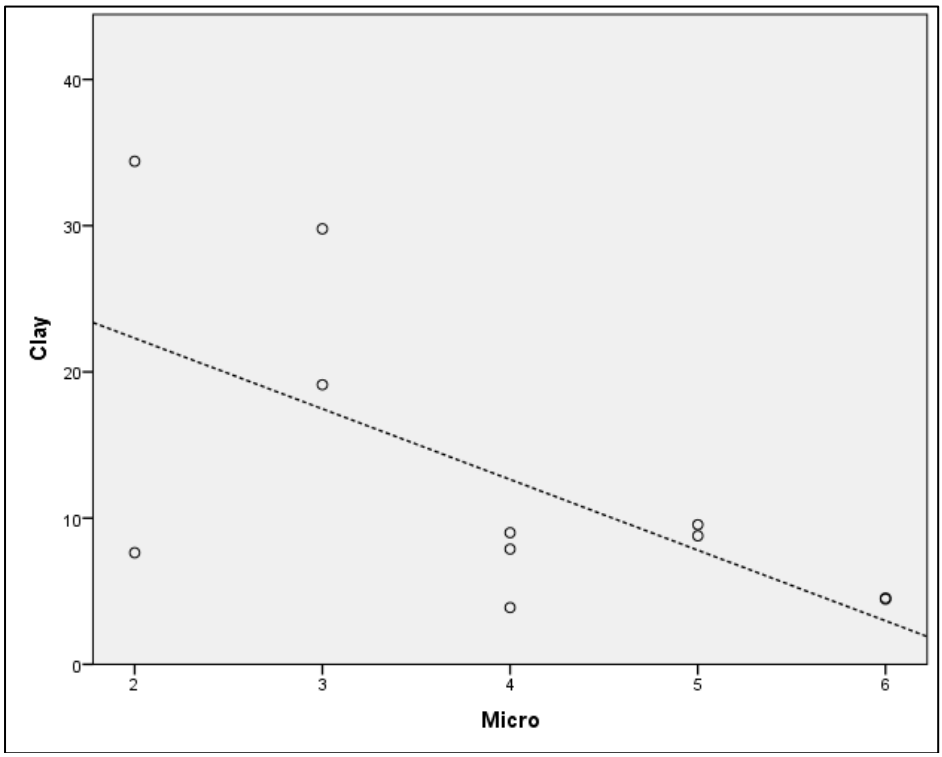

Figure 17. Box-plot showing the correlation between the percentage of clay particles and anthropogenic microartefact scores l for the Dan samples.

Grain-size by sample

Phi Size Class	Total Weight: 38.66	Weight %	Cum. % Coarser	Grain Size %	
-1	1.04	2.69	2.69		
0	2.46	6.36	9.05		
1	6.16	15.93	24.99		
2	5.51	14.25	39.24		
3	4.32	11.17	50.41		
3.8	17.50	45.27	54.73		
4	3.62	9.36	59.78	62.88	*Sand*
4.1	10.00	25.87	74.13		
4.3	8.50	21.99	78.01		
4.8	7.00	18.11	81.89		
5.5	5.00	12.93	87.07		
6.3	3.50	9.05	90.95		
6.7	3.50	9.05	90.95		
7.2	2.00	5.17	94.83		
7.7	1.50	3.88	96.12		
8.2	1.50	3.88	96.12	33.24	*Silt*
8.7	1.00	2.59	97.41		
9.5	1.00	2.59	97.41		
				3.88	*Clay*

Table 4. Grain-size analysis data for Dan sample DAN/11/K/G/A.

Phi Size Class	Total Weight: 38.60	Weight %	Cum. % Coarser	Grain Size %	
-1	2.15	5.57	5.57		
0	3.56	9.22	14.79		
1	5.35	13.86	28.65		
2	4.37	11.32	39.97		
3	3.90	10.10	50.08		
3.8	16.50	42.75	57.25		
4	2.97	7.69	57.77	58.29	*Sand*
4.1	15.50	40.16	59.84		
4.3	15.00	38.86	61.14		
4.8	12.50	32.38	67.62		
5.5	10.00	25.91	74.09		
6.3	5.50	14.25	85.75		
6.7	4.50	11.66	88.34		
7.2	3.00	7.77	92.23		
7.7	2.00	5.18	94.82		
8.2	1.50	3.89	96.11	37.18	*Silt*
8.7	1.00	2.59	97.41		
9.5	1.00	2.59	97.41		
				4.53	*Clay*

Table 5. Grain-size analysis data for Dan sample DAN/11/K/G/B.

Phi Size Class	Total Weight: 39.83	Weight %	Cum. % Coarser	Grain Size %	
-1	0.93	2.33	2.33		
0	0.96	2.41	4.75		
1	2.43	6.10	10.85		
2	3.56	8.94	19.78		
3	2.55	6.40	26.19		
3.8	16.50	41.43	58.57		
4	1.30	3.26	29.45	49.28	Sand
4.1	16.00	40.17	59.83		
4.3	14.00	35.15	64.85		
4.8	11.50	28.87	71.13		
5.5	10.50	26.36	73.64		
6.3	6.50	16.32	83.68		
6.7	5.50	13.81	86.19		
7.2	4.50	11.30	88.70		
7.7	3.50	8.79	91.21		
8.2	3.50	8.79	91.21	41.93	Silt
8.7	2.50	6.28	93.72		
9.5	2.00	5.02	94.98		
				8.79	Clay

Table 6. Grain-size analysis data for Dan sample DAN/11/K/G/C.

Phi Size Class	Total Weight: 39.25	Weight %	Cum. % Coarser	Grain Size %	
-1	0.87	2.22	2.22		
0	0.64	1.63	3.85		
1	1.29	3.29	7.13		
2	3.16	8.05	15.18		
3	3.00	7.64	22.83		
3.8	16.50	42.04	57.96		
4	1.67	4.25	27.08	48.94	Sand
4.1	15.00	38.22	61.78		
4.3	14.50	36.94	63.06		
4.8	11.50	29.30	70.70		
5.5	8.50	21.66	78.34		
6.3	7.00	17.83	82.17		
6.7	6.50	16.56	83.44		
7.2	4.50	11.46	88.54		
7.7	4.00	10.19	89.81		
8.2	3.50	8.92	91.08	41.50	Silt
8.7	2.50	6.37	93.63		
9.5	2.00	5.10	94.90		
				9.55	Clay

Table 7. Grain-size analysis data for Dan sample DAN/11/K/G/D.

Phi Size Class	Total Weight: 39.25	Weight %	Cum. % Coarser	Grain Size %	
-1	1.17	2.98	2.98		
0	2.73	6.96	9.94		
1	5.88	14.98	24.92		
2	4.95	12.61	37.53		
3	4.17	10.62	48.15		
3.8	16.00	40.76	59.24		
4	2.84	7.24	55.39	40.69	Sand
4.1	14.50	36.94	63.06		
4.3	14.00	35.67	64.33		
4.8	11.00	28.03	71.97		
5.5	8.00	20.38	79.62		
6.3	5.00	12.74	87.26		
6.7	4.00	10.19	89.81		
7.2	3.00	7.64	92.36		
7.7	2.00	5.10	94.90		
8.2	1.50	3.82	96.18	54.85	Silt
8.7	1.00	2.55	97.45		
9.5	1.00	2.55	97.45		
				4.46	Clay

Table 8. Grain-size analysis data for Dan sample DAN/11/K/G/E.

Phi Size Class	Total Weight: 38.90	Weight %	Cum. % Coarser	Grain Size %	
-1	0.96	2.47	2.47		
0	1.83	4.70	7.17		
1	3.08	7.92	15.09		
2	3.86	9.92	25.01		
3	4.05	10.41	35.42		
3.8	19.50	50.13	49.87		
4	3.00	7.71	43.14	48.91	Sand
4.1	18.00	46.27	53.73		
4.3	16.50	42.42	57.58		
4.8	14.00	35.99	64.01		
5.5	10.50	26.99	73.01		
6.3	7.00	17.99	82.01		
6.7	6.00	15.42	84.58		
7.2	4.00	10.28	89.72		
7.7	4.00	10.28	89.72		
8.2	3.00	7.71	92.29	42.09	Silt
8.7	2.00	5.14	94.86		
9.5	2.00	5.14	94.86		
				9.00	Clay

Table 9. Grain-size analysis data for Dan sample DAN/11/K/G/F.

Phi Size Class	Total Weight: 38.62	Weight %	Cum. % Coarser	Grain Size %	
-1	0.32	0.83	0.83		
0	0.24	0.62	1.45		
1	0.25	0.65	2.10		
2	0.59	1.53	3.63		
3	1.12	2.90	6.53		
3.8	26.50	68.62	31.38		
4	0.63	1.63	8.16	24.50	Sand
4.1	25.50	66.03	33.97		
4.3	25.00	64.73	35.27		
4.8	22.50	58.26	41.74		
5.5	20.00	51.79	48.21		
6.3	18.00	46.61	53.39		
6.7	16.00	41.43	58.57		
7.2	14.00	36.25	63.75		
7.7	12.50	32.37	67.63		
8.2	10.50	27.19	72.81	45.72	Silt
8.7	9.00	23.30	76.70		
9.5	7.50	19.42	80.58		
				29.78	Clay

Table 10. Grain-size analysis data for Dan sample DAN/11/K/G/G.

Phi Size Class	Total Weight: 39.23	Weight %	Cum. % Coarser	Grain Size %	
-1	0.62	1.58	1.58		
0	0.49	1.25	2.83		
1	1.07	2.73	5.56		
2	1.82	4.64	10.20		
3	1.94	4.95	15.14		
3.8	26.00	66.28	33.72		
4	1.07	2.73	17.87	29.71	Sand
4.1	24.50	62.45	37.55		
4.3	24.00	61.18	38.82		
4.8	21.00	53.53	46.47		
5.5	18.50	47.16	52.84		
6.3	14.00	35.69	64.31		
6.7	12.00	30.59	69.41		
7.2	10.50	26.77	73.23		
7.7	8.00	20.39	79.61		
8.2	7.00	17.84	82.16	51.17	Silt
8.7	6.00	15.29	84.71		
9.5	5.00	12.75	87.25		
				19.12	Clay

Table 11. Grain-size analysis data for Dan sample DAN/11/K/G/H.

Phi Size Class	Total Weight: 38.07	Weight %	Cum. % Coarser	Grain Size %	
-1	1.04	2.73	2.73		
0	1.95	5.12	7.85		
1	4.49	11.79	19.65		
2	3.76	9.88	29.52		
3	3.21	8.43	37.96		
3.8	16.50	43.34	56.66		
4	2.05	5.38	43.34	53.53	Sand
4.1	15.00	39.40	60.60		
4.3	14.50	38.09	61.91		
4.8	12.00	31.52	68.48		
5.5	9.50	24.95	75.05		
6.3	7.00	18.39	81.61		
6.7	6.00	15.76	84.24		
7.2	4.50	11.82	88.18		
7.7	3.50	9.19	90.81		
8.2	2.50	6.57	93.43	38.59	Silt
8.7	2.00	5.25	94.75		
9.5	2.00	5.25	94.75		
				7.88	Clay

Table 12. Grain-size analysis data for Dan sample DAN/11/K/W/I.

Phi Size Class	Total Weight: 38.52	Weight %	Cum. % Coarser	Grain Size %	
-1	0.18	0.47	0.47		
0	1.12	2.91	3.37		
1	0.20	0.52	3.89		
2	0.51	1.32	5.22		
3	0.70	1.82	7.04		
3.8	29.50	76.58	23.42		
4	0.56	1.45	8.49	19.31	Sand
4.1	28.50	73.99	26.01		
4.3	27.50	71.39	28.61		
4.8	25.00	64.90	35.10		
5.5	21.50	55.82	44.18		
6.3	19.00	49.33	50.67		
6.7	18.00	46.73	53.27		
7.2	16.00	41.54	58.46		
7.7	14.00	36.34	63.66		
8.2	12.50	32.45	67.55	46.30	Silt
8.7	11.00	28.56	71.44		
9.5	9.50	24.66	75.34		
				34.40	Clay

Table 13. Grain-size analysis data for Dan sample DAN/11/K/W/J.

Phi Size Class	Total Weight: 39.32	Weight %	Cum. % Coarser	Grain Size %	
-1	1.07	2.72	2.72		
0	2.71	6.89	9.61		
1	4.83	12.28	21.90		
2	4.18	10.63	32.53		
3	3.58	9.10	41.63		
3.8	18.00	45.78	54.22		
4	2.43	6.18	47.81	52.93	Sand
4.1	17.00	43.23	56.77		
4.3	16.00	40.69	59.31		
4.8	14.00	35.61	64.39		
5.5	11.50	29.25	70.75		
6.3	7.50	19.07	80.93		
6.7	6.00	15.26	84.74		
7.2	4.50	11.44	88.56		
7.7	3.50	8.90	91.10		
8.2	2.50	6.36	93.64	39.44	Silt
8.7	2.00	5.09	94.91		
9.5	2.00	5.09	94.91		
				7.63	Clay

Table 14. Grain-size analysis data for Dan sample DAN/11/K/G/K.

Phi Size Class	Total Weight: 38.52	Weight %	Cum. % Coarser	Grain Size %	
-1	3.52	8.95	8.95		
0	3.25	8.27	17.22		
1	3.08	7.83	25.05		
2	2.15	5.47	30.52		
3	1.97	5.01	35.53		
3.8	22.00	55.95	44.05		
4	1.30	3.31	38.84	42.73	Sand
4.1	21.50	54.68	45.32		
4.3	21.00	53.41	46.59		
4.8	20.50	52.14	47.86		
5.5	18.50	47.05	52.95		
6.3	17.50	44.51	55.49		
6.7	15.00	38.15	61.85		
7.2	11.00	27.98	72.02		
7.7	7.50	19.07	80.93		
8.2	5.50	13.99	86.01	40.73	Silt
8.7	4.00	10.17	89.83		
9.5	3.00	7.63	92.37		
				16.53	Clay

Table 15. Grain-size analysis data for Dan sample DAN/11/K/R/A.

Phi Size Class	Total Weight: 39.05	Weight %	Cum. % Coarser	Grain Size %	
-1	0.78	2.00	2.00		
0	1.32	3.38	5.38		
1	1.76	4.51	9.88		
2	2.46	6.30	16.18		
3	4.35	11.14	27.32		
3.8	18.50	47.38	52.62		
4	3.71	9.50	36.82	47.78	Sand
4.1	18.00	46.09	53.91		
4.3	17.50	44.81	55.19		
4.8	15.50	39.69	60.31		
5.5	12.00	30.73	69.27		
6.3	5.50	14.08	85.92		
6.7	5.00	12.80	87.20		
7.2	3.50	8.96	91.04		
7.7	2.00	5.12	94.88		
8.2	2.00	5.12	94.88	47.09	Silt
8.7	1.50	3.84	96.16		
9.5	1.00	2.56	97.44		
				5.12	Clay

Table 16.Grain-size analysis data for Dan sample DAN/11/K/R/B.

Phi Size Class	Total Weight: 38.32	Weight %	Cum. % Coarser	Grain Size %	
-1	1.67	4.36	4.36		
0	2.68	6.99	11.35		
1	4.85	12.66	24.01		
2	4.83	12.60	36.61		
3	5.01	13.07	49.69		
3.8	14.00	36.53	63.47		
4	3.95	10.31	59.99	62.74	Sand
4.1	13.50	35.23	64.77		
4.3	12.00	31.32	68.68		
4.8	9.50	24.79	75.21		
5.5	6.50	16.96	83.04		
6.3	4.00	10.44	89.56		
6.7	3.00	7.83	92.17		
7.2	2.50	6.52	93.48		
7.7	1.50	3.91	96.09		
8.2	1.00	2.61	97.39	33.99	Silt
8.7	1.00	2.61	97.39		
9.5	0.50	1.30	98.70		
				3.26	Clay

Table 17. Grain-size analysis data for Dan sample DAN/11/K/R/C.

Phi Size Class	Total Weight: 39.10	Weight %	Cum. % Coarser	Grain Size %	
-1	1.25	3.20	3.20		
0	2.41	6.16	9.36		
1	4.31	11.02	20.38		
2	4.17	10.66	31.05		
3	4.10	10.49	41.53		
3.8	16.00	40.92	59.08		
4	2.74	7.01	48.54	56.85	Sand
4.1	14.50	37.08	62.92		
4.3	14.00	35.81	64.19		
4.8	11.50	29.41	70.59		
5.5	8.50	21.74	78.26		
6.3	6.00	15.35	84.65		
6.7	5.00	12.79	87.21		
7.2	4.00	10.23	89.77		
7.7	3.00	7.67	92.33		
8.2	2.50	6.39	93.61	36.12	Silt
8.7	2.00	5.12	94.88		
9.5	1.50	3.84	96.16		
				7.03	Clay

Table 18. Grain-size analysis data for Dan sample DAN/11/T3/W/A.

Phi Size Class	Total Weight: 38.71	Weight %	Cum. % Coarser	Grain Size %	
-1	0.80	2.07	2.07		
0	0.83	2.14	4.21		
1	2.17	5.61	9.82		
2	5.51	14.23	24.05		
3	5.51	14.23	38.28		
3.8	15.50	40.04	59.96		
4	2.52	6.51	44.79	56.20	Sand
4.1	14.00	36.17	63.83		
4.3	13.50	34.87	65.13		
4.8	12.00	31.00	69.00		
5.5	8.00	20.67	79.33		
6.3	5.00	12.92	87.08		
6.7	4.00	10.33	89.67		
7.2	3.50	9.04	90.96		
7.7	3.00	7.75	92.25		
8.2	2.50	6.46	93.54	36.70	Silt
8.7	2.00	5.17	94.83		
9.5	1.00	2.58	97.42		
				7.10	Clay

Table 19. Grain-size analysis data for Dan sample DAN/11/T3/W/B.

Megiddo

Tables

Table 20. Master table of sample data from Megiddo containing a summary of the results of all the analytical procedures. Columns:1 = sample name, 2 = colour when dry, 3 = colour when moist, 4 = magnetic susceptibility, 5 = percentage of organic material (LOI), 6 = pH level, 7 = phosphate score, 8 = score of anthropogenic microartefacts, 9 = percentage of sand, 10 = percentage of silt, 11 = percentage of clay, 12 = dimensions of brick in context (where possible).

Sample	Colour (Dry)	Colour (Moist)	X_{LF} ($10^{-6}m^3kg^{-1}$)	% OM	pH	P Score	Micro	Sand	Silt	Clay	Dimensions (cm)
MEG/10/K/1A	10YR 8/2 very pale brown	10YR 6/3 pale brown	0.090999011	2.8	8.30	20	0	44.40	30.70	24.90	36 x 32
MEG/10/K/1B	2.5Y 7/3 pale yellow	2.5Y 5/4 light olive brown	0.055500496	2.8	8.24	12	0	50.40	27.46	22.14	37 x 31
MEG/10/K/2A	10YR 7/3 very pale brown	10YR 6/3 pale brown	0.028884462	2.4	8.33	18	0	54.32	23.52	22.16	frag
MEG/10/K/2B	2.5Y 7/4 pale yellow	2.5Y 6/4 light yellowish brown	0.051587302	3.2	8.24	14	0	52.50	27.30	20.20	36 x 36 x 11
MEG/10/K/2C	10YR 7/2 light gray	10YR 5/3 brown	0.176412289	4.6	7.92	22	1	40.69	38.85	20.46	36 x (36)
MEG/10/K/2D	10YR 6/3 pale brown	10YR 4/3 brown	0.598409543	5.0	8.05	19	2	44.41	36.20	19.39	mortar
MEG/10/K/3A	10YR 5/3 brown	10YR 4/2 dark grayish brown	0.460539461	4.8	8.30	23	3	29.19	35.68	35.13	33 x 33
MEG/10/K/3B	10YR 7/3 very pale brown	10YR 5/3 brown	0.067317073	3.4	8.26	16	2	35.78	37.39	26.83	36 x 34 x (12)
MEG/10/K/3C	10YR 7/2 light gray	10YR 5/3 brown	0.240904621	4.2	7.93	13	1	48.67	31.21	20.12	36 x (34) x 12
MEG/10/K/3D	10YR 8/2 very pale brown	10YR 6/3 pale brown	0.035714286	2.2	8.83	20	2	56.46	26.43	17.11	frag
MEG/10/K/3E	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	0.855721393	6.2	8.19	15	5	42.59	34.75	22.66	34 x 34
MEG/10/K/3F	10YR 7/2 light gray	10YR 5/2 grayish brown	0.275793651	6.2	8.16	20	4	30.72	32.49	36.79	S 50 x 32
MEG/10/K/3G	10YR 7/2 light gray	10YR 5/2 grayish brown	0.310107949	7.4	8.04	22	4	28.54	34.97	36.49	S 50 x 32
MEG/10/K/4A	2.5Y 6/3 light yellowish brown	2.5Y 5/3 light olive brown	0.129096326	5.8	8.21	16	2	28.75	23.09	48.16	36 x 36
MEG/10/K/4B	2.5Y 7/3 pale yellow	2.5Y 6/3 light yellowish brown	0.041910331	3.4	8.11	13	2	52.86	23.46	23.68	H 56 x 32
MEG/10/K/4C	2.5Y 7/3 pale yellow	2.5Y 5/3 light olive brown	0.169792695	3.2	9.10	20	3	46.62	29.11	24.27	plaster
MEG/10/K/4D	2.5Y 7/3 pale yellow	2.5Y 5/3 light olive brown	0.038387716	2.8	8.80	14	1	50.75	35.78	13.47	frag
MEG/10/K/4E	10YR 7/2 light gray	10YR 5/2 grayish brown	0.271760155	10.8	8.52	19	1	24.32	48.73	26.95	frag
MEG/10/K/SA	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	1.23253493	8.4	8.10	20	6	46.66	38.14	15.20	13.00
MEG/10/K/SB	10YR 6/2 light brownish gray	2.5Y 5/2 grayish brown	0.192678227	6.4	8.20	15	3	37.09	31.28	31.63	32 x 14
MEG/10/K/SC	2.5Y 7/2 light gray	2.5Y 6/3 light yellowish brown	0.140316206	7.0	8.42	14	2	19.02	24.66	56.32	32 x 12
MEG/10/K/SD	10YR 7/2 light gray	10YR 5/2 grayish brown	0.063872255	4.6	7.50	22	0	41.07	32.73	26.20	36 x 12

Table 20 (cont.).

Sample	Colour (Dry)	Colour (Moist)	X_{LF} ($10^{-6}m^3kg^{-1}$)	% OM	pH	P Score	Micro	Sand	Silt	Clay	Dimensions (cm)
MEG/10/K/SE	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	0.92642788	7.2	7.67	21	4	49.12	34.97	15.91	mortar
MEG/10/K/SF	10YR 7/2 light gray	10YR 5/3 brown	0.053639847	3.8	8.81	13	1	42.59	30.87	26.54	frag
MEG/10/K/SG	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	1.01497006	9.4	8.09	15	4	56.40	27.00	16.60	mortar
MEG/10/AA/GA	2.5Y 7/3 pale yellow	2.5Y 6/4 light yellowish brown	0.033696729	2.6	8.91	19	1	63.78	27.39	8.83	36 x 30
MEG/10/AA/GB	10YR 6/2 light brownish gray	10YR 3/2 very dark grayish brown	1.093906094	6.6	8.88	19	3	58.60	33.20	8.20	mortar
MEG/10/AA/GC	2.5Y 7/3 pale yellow	2.5Y 5/4 light olive brown	0.062734082	1.8	9.24	20	1	62.62	26.39	10.99	30 x 30
MEG/10/AA/GD	10YR 6/3 pale brown	10YR 4/3 brown	0.404360753	3.6	8.96	19	4	41.87	44.22	13.91	36 x (32)
MEG/10/AA/WA	2.5Y 7/3 pale yellow	2.5Y 6/3 light yellowish brown	0.036561265	2.0	8.82	18	0	53.38	24.84	21.78	H 56 x 32
MEG/10/AA/WB	10YR 5/2 grayish brown	10YR 4/2 dark grayish brown	0.329365079	7.8	8.81	21	3	28.10	50.40	21.50	32 x (32)
MEG/10/AA/WC	2.5Y 7/2 light gray	2.5Y 6/3 light yellowish brown	0.055666004	6.6	8.75	15	2	18.16	37.51	44.33	36 x 36
MEG/10/AA/WD	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	0.093625498	6.6	8.70	17	1	34.99	39.55	25.46	36 x 36
MEG/10/AA/DA	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	1.002994012	5.6	8.78	16	4	45.10	37.70	17.20	33 x 15 x 11
MEG/10/BB-104/A	10YR 5/2 grayish brown	10YR 4/2 dark grayish brown	0.481737414	10.0	8.62	22	4	19.19	21.88	58.93	source
MEG/10/K/020A	10YR 6/2 light brownish gray	10YR 4/2 dark grayish brown	0.931	5.2	9.31	17	6	37.46	38.35	24.19	

Sample	Colour (Dry)		Sample	Colour (Moist)
MEG/10/K/1A	10YR 8/2 very pale brown		MEG/10/K/SC	2.5Y 6/3 light yellowish brown
MEG/10/K/3D	10YR 8/2 very pale brown		MEG/10/AA/WC	2.5Y 6/3 light yellowish brown
			MEG/10/K/4B	2.5Y 6/3 light yellowish brown
MEG/10/K/2A	10YR 7/3 very pale brown		MEG/10/AA/WA	2.5Y 6/3 light yellowish brown
MEG/10/K/3B	10YR 7/3 very pale brown			
			MEG/10/AA/GA	2.5Y 6/4 light yellowish brown
MEG/10/K/2C	10YR 7/2 light gray		MEG/10/K/2B	2.5Y 6/4 light yellowish brown
MEG/10/K/3C	10YR 7/2 light gray			
MEG/10/K/3F	10YR 7/2 light gray		MEG/10/K/2A	10YR 6/3 pale brown
MEG/10/K/3G	10YR 7/2 light gray		MEG/10/K/1A	10YR 6/3 pale brown
MEG/10/K/4E	10YR 7/2 light gray		MEG/10/K/3D	10YR 6/3 pale brown
MEG/10/K/SD	10YR 7/2 light gray			
MEG/10/K/SF	10YR 7/2 light gray		MEG/10/K/SB	2.5Y 5/2 grayish brown
MEG/10/K/2B	2.5Y 7/4 pale yellow		MEG/10/K/4A	2.5Y 5/3 light olive brown
			MEG/10/K/4C	2.5Y 5/3 light olive brown
MEG/10/K/1B	2.5Y 7/3 pale yellow		MEG/10/K/4D	2.5Y 5/3 light olive brown
MEG/10/K/4B	2.5Y 7/3 pale yellow			
MEG/10/K/4C	2.5Y 7/3 pale yellow		MEG/10/K/1B	2.5Y 5/4 light olive brown
MEG/10/K/4D	2.5Y 7/3 pale yellow		MEG/10/AA/GC	2.5Y 5/4 light olive brown
MEG/10/AA/GA	2.5Y 7/3 pale yellow			
MEG/10/AA/GC	2.5Y 7/3 pale yellow		MEG/10/K/3F	10YR 5/2 grayish brown
MEG/10/AA/WA	2.5Y 7/3 pale yellow		MEG/10/K/3G	10YR 5/2 grayish brown
			MEG/10/K/4E	10YR 5/2 grayish brown
MEG/10/K/SC	2.5Y 7/2 light gray		MEG/10/K/SD	10YR 5/2 grayish brown
MEG/10/AA/WC	2.5Y 7/2 light gray			
			MEG/10/K/2C	10YR 5/3 brown
MEG/10/K/4A	2.5Y 6/3 light yellowish brown		MEG/10/K/3C	10YR 5/3 brown
			MEG/10/K/SF	10YR 5/3 brown
MEG/10/K/2D	10YR 6/3 pale brown		MEG/10/K/3B	10YR 5/3 brown
MEG/10/AA/GD	10YR 6/3 pale brown			
			MEG/10/AA/WB	10YR 4/2 dark grayish brown
MEG/10/K/3E	10YR 6/2 light brownish gray		MEG/10/BB-104/A	10YR 4/2 dark grayish brown
MEG/10/K/SA	10YR 6/2 light brownish gray		MEG/10/K/3A	10YR 4/2 dark grayish brown
MEG/10/K/SB	10YR 6/2 light brownish gray		MEG/10/K/3E	10YR 4/2 dark grayish brown
MEG/10/K/SE	10YR 6/2 light brownish gray		MEG/10/K/SA	10YR 4/2 dark grayish brown
MEG/10/K/SG	10YR 6/2 light brownish gray		MEG/10/K/SE	10YR 4/2 dark grayish brown
MEG/10/AA/GB	10YR 6/2 light brownish gray		MEG/10/K/SG	10YR 4/2 dark grayish brown
MEG/10/AA/WD	10YR 6/2 light brownish gray		MEG/10/AA/WD	10YR 4/2 dark grayish brown
MEG/10/AA/DA	10YR 6/2 light brownish gray		MEG/10/AA/DA	10YR 4/2 dark grayish brown
MEG/10/K/020A	10YR 6/2 light brownish gray		MEG/10/K/020A	10YR 4/2 dark grayish brown
MEG/10/K/3A	10YR 5/3 brown		MEG/10/K/2D	10YR 4/3 brown
			MEG/10/AA/GD	10YR 4/3 brown
MEG/10/AA/WB	10YR 5/2 grayish brown			
MEG/10/BB-104/A	10YR 5/2 grayish brown		MEG/10/AA/GB	10YR 3/2 very dark grayish brown

Table 21. Megiddo samples arranged by colour.

Charts

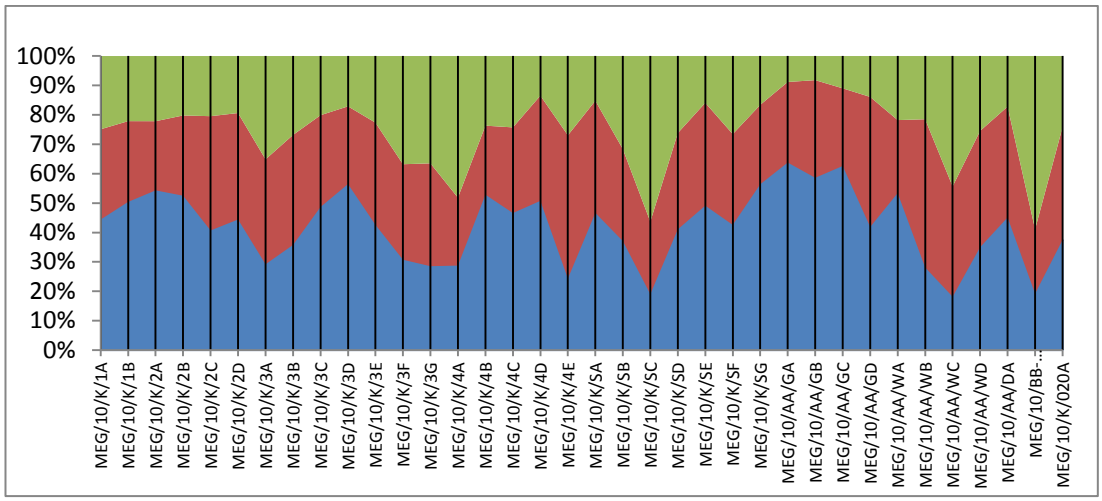

Figure 18. Grain-size precentages of Megiddo mud-brick samples (Green = Clay, Red = Silt, Blue = Sand).

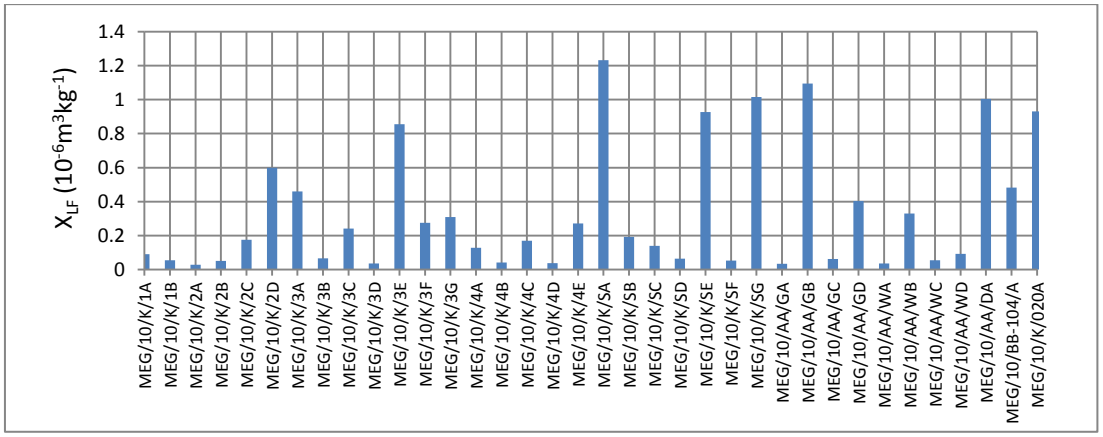

Figure 19. Mass-specific magnetic susceptibility of Megiddo mud-brick samples.

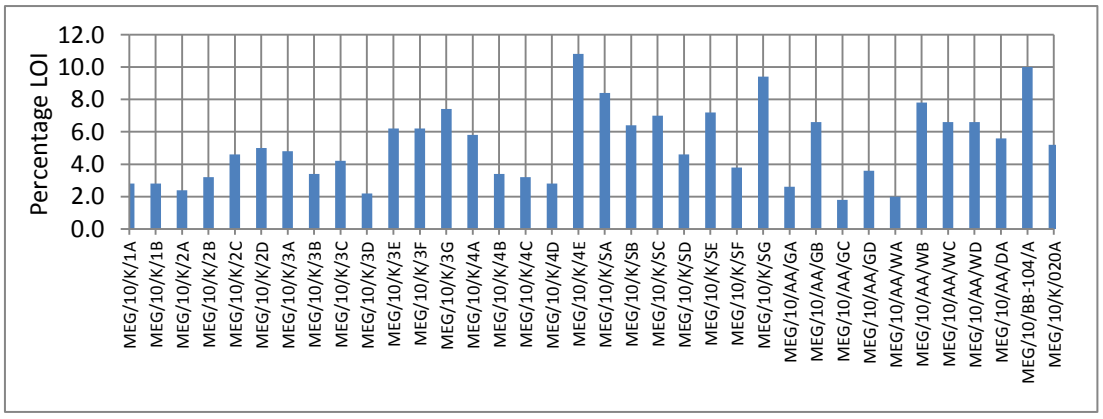

Figure 20. Percentage of organic material in Megiddo samples, based on LOI.

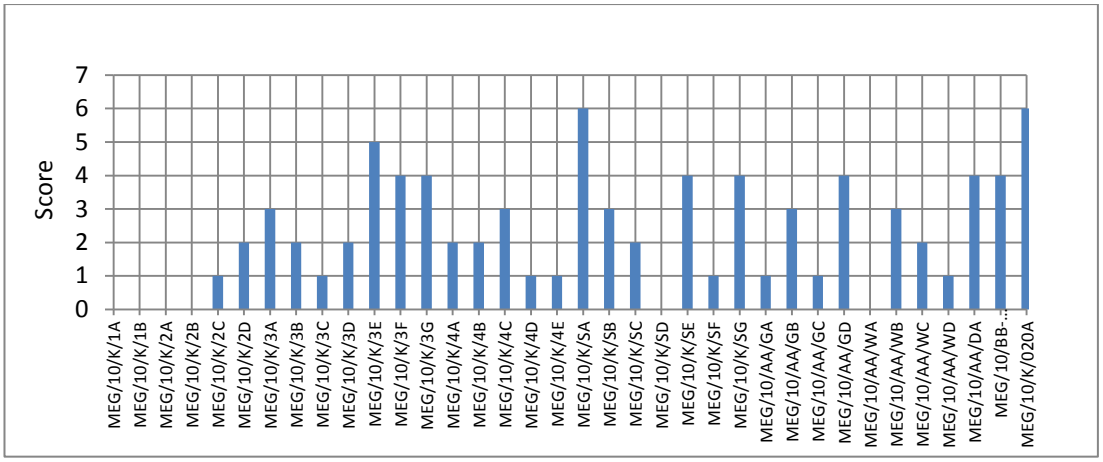

Figure 21. Score of anthropogenic microartefacts in Megiddo samples.

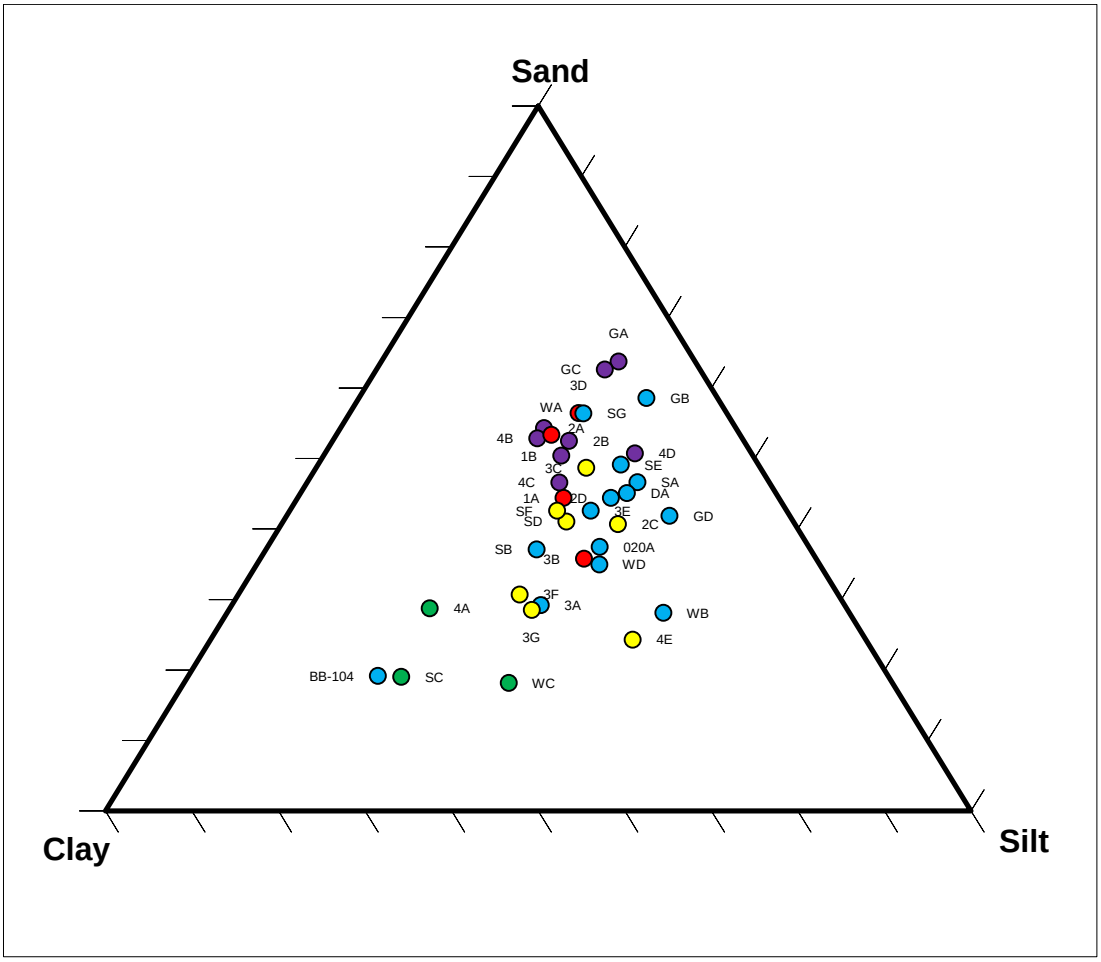

Figure 22. Ternary graph of MB bricks at Megiddo showing the distribution of grain-size percentages of each sample. Brick types are distinguished by colour (purple = Light A; green = Light B; yellow = Light C; red = Light D; and blue = Dark).

Statistical descriptions

Histograms

In the following charts, note the ‘mean’ and ‘standard deviation’ in the upper right.

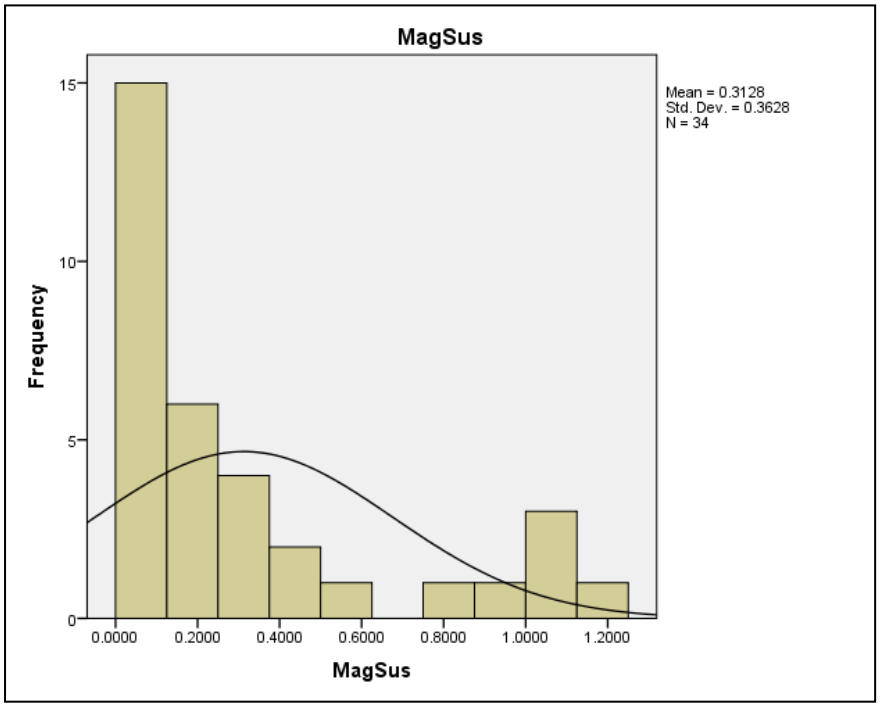

Figure 23. Histogram showing the frequencies of mass-specific magnetic susceptibility for the Megiddo samples.

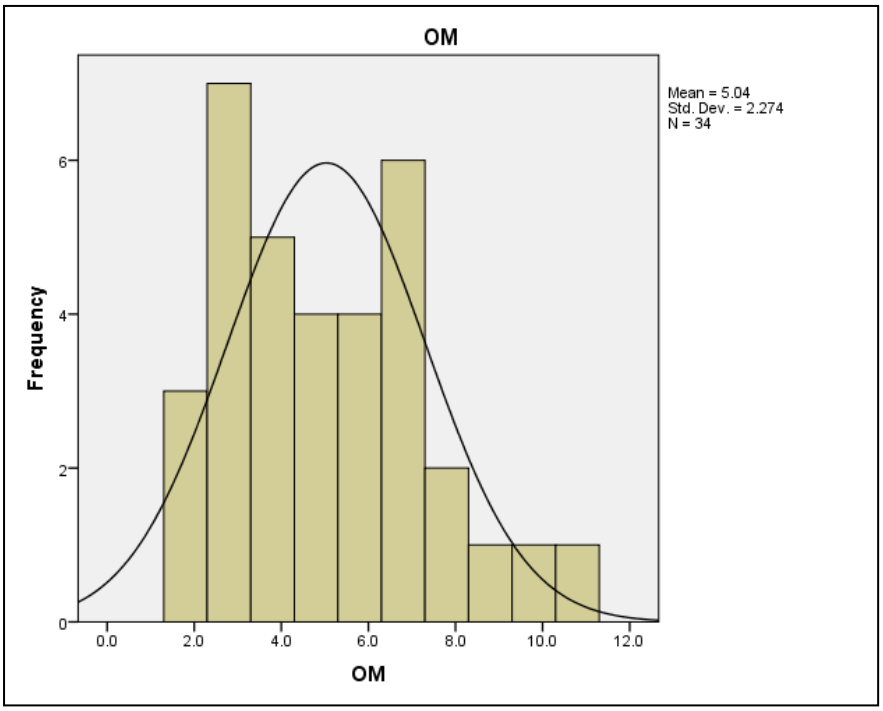

Figure 24. Histogram showing the frequencies of the percentage of organic material for the Megiddo samples.

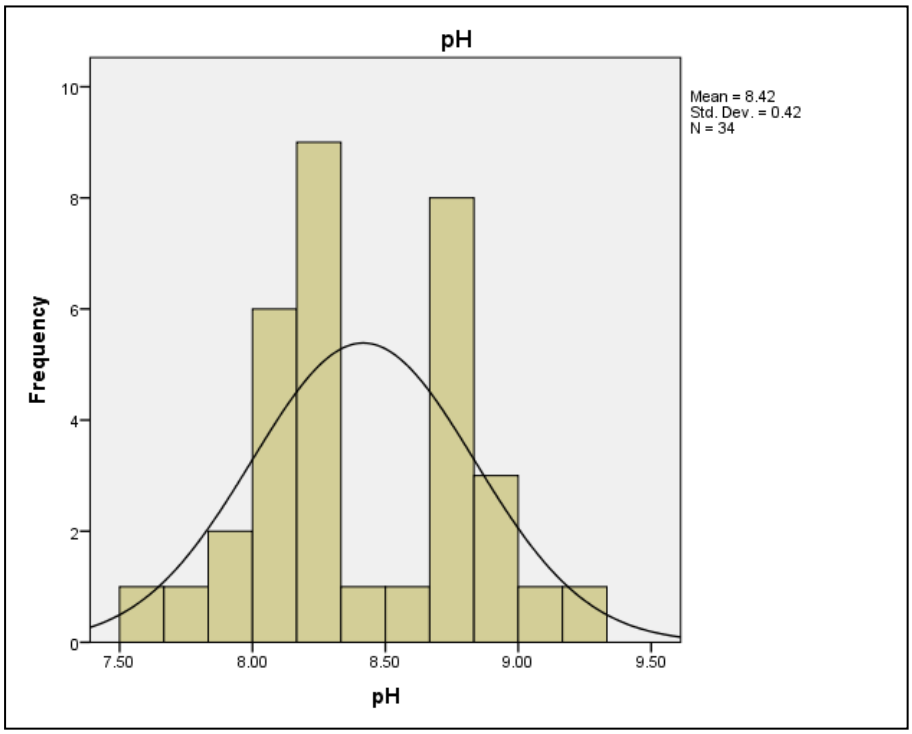

Figure 25. Histogram showing the frequencies of pH levels for the Megiddo samples.

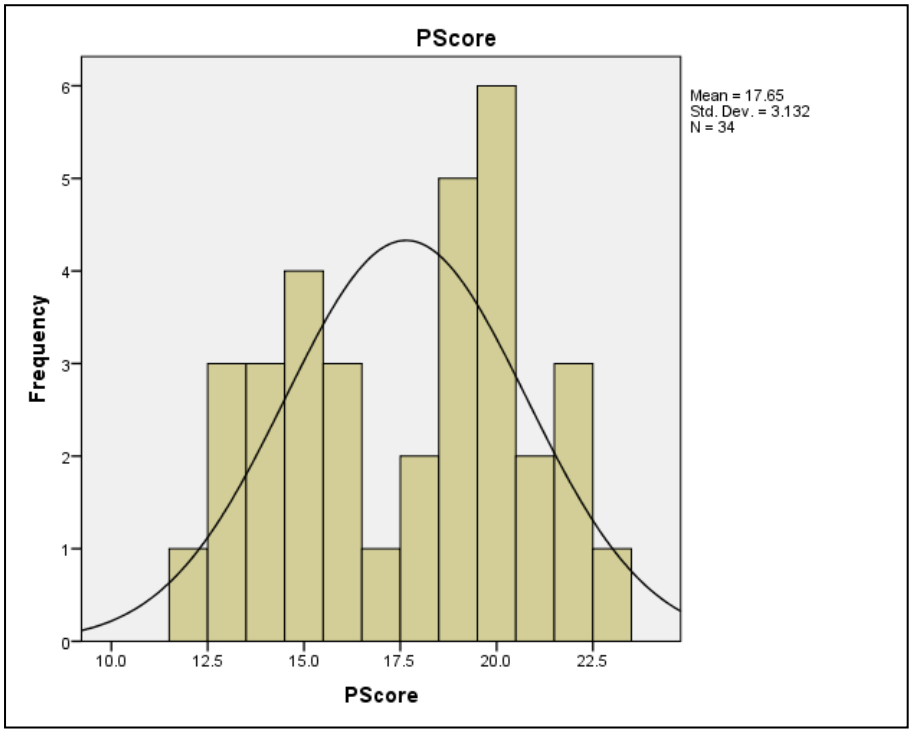

Figure 26. Histogram showing the frequencies of phosphate scores for the Megiddo samples.

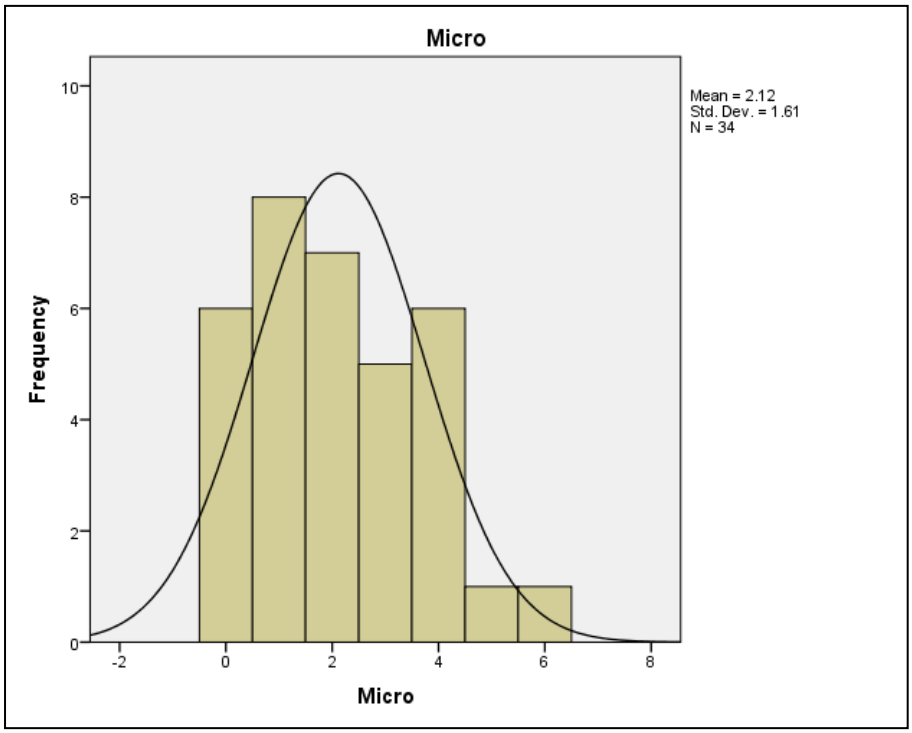

Figure 27. Histogram showing the frequencies of anthropogenic microartefact scores for the Megiddo samples.

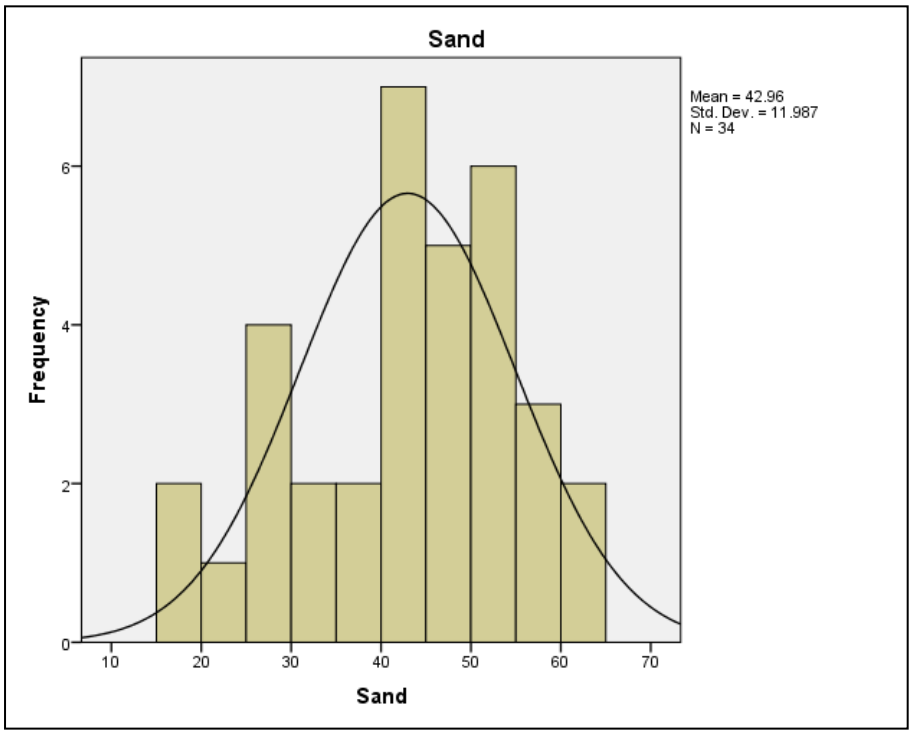

Figure 28. Histogram showing the frequencies of the percentage of sand particles for the Megiddo samples.

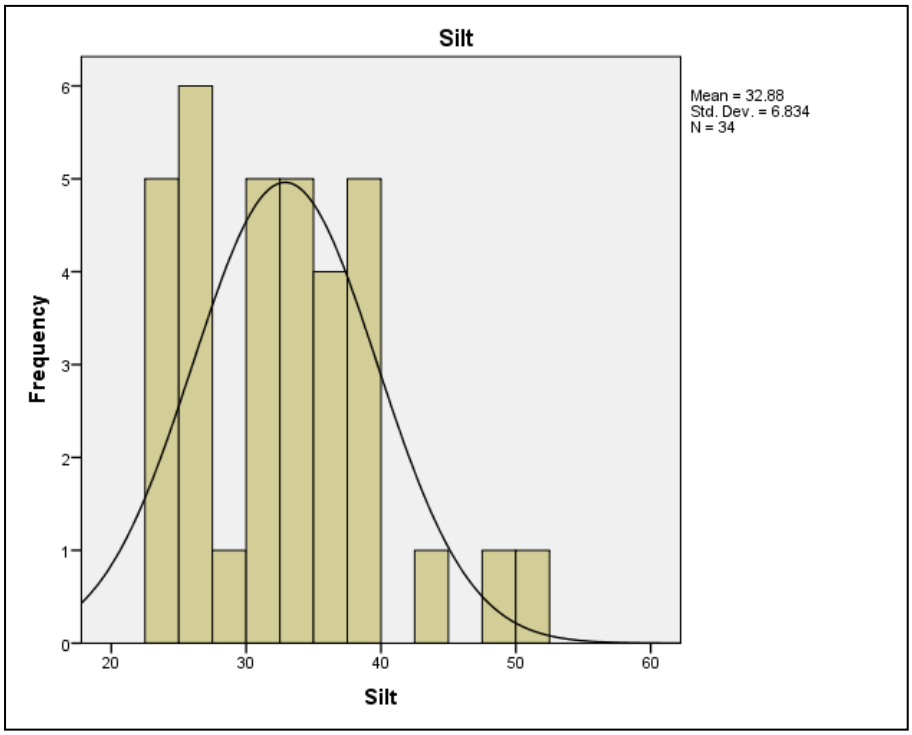

Figure 29. Histogram showing the frequencies of the percentage of silt particles for the Megiddo samples.

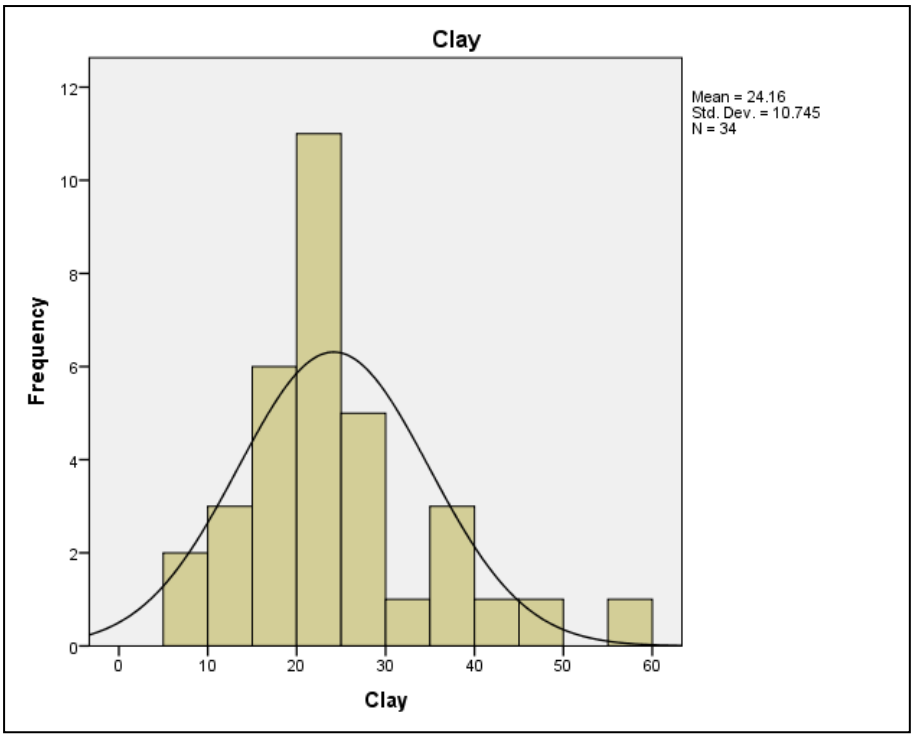

Figure 30. Histogram showing the frequencies of the percentage of clay particles for the Megiddo samples.

Scatter plots

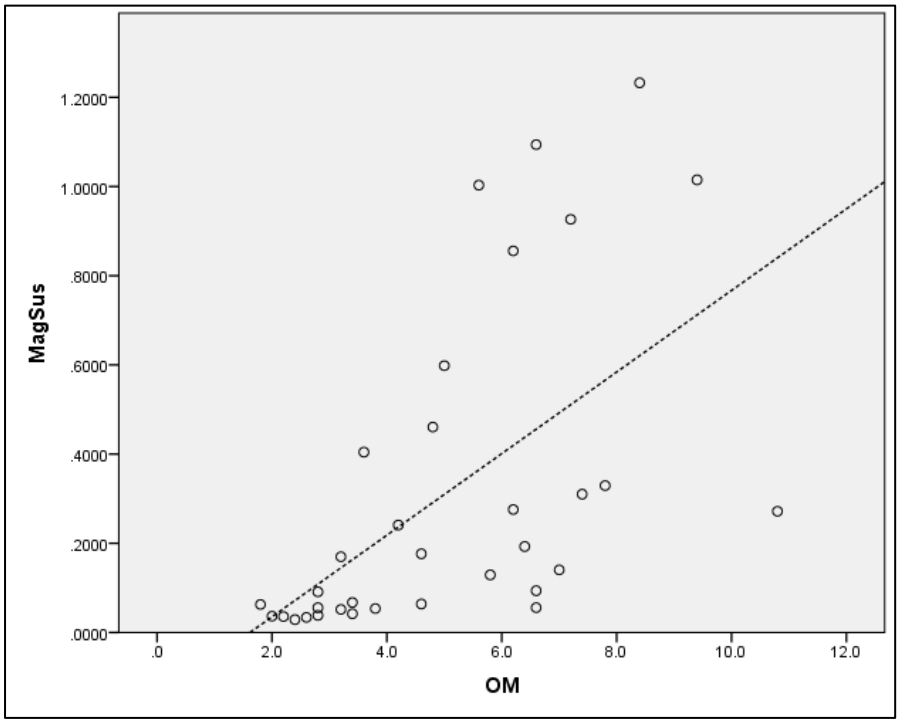

Figure 31. Box-plot showing the correlation between mass-specific magnetic susceptibility and the percentage of organic material for the Megiddo samples.

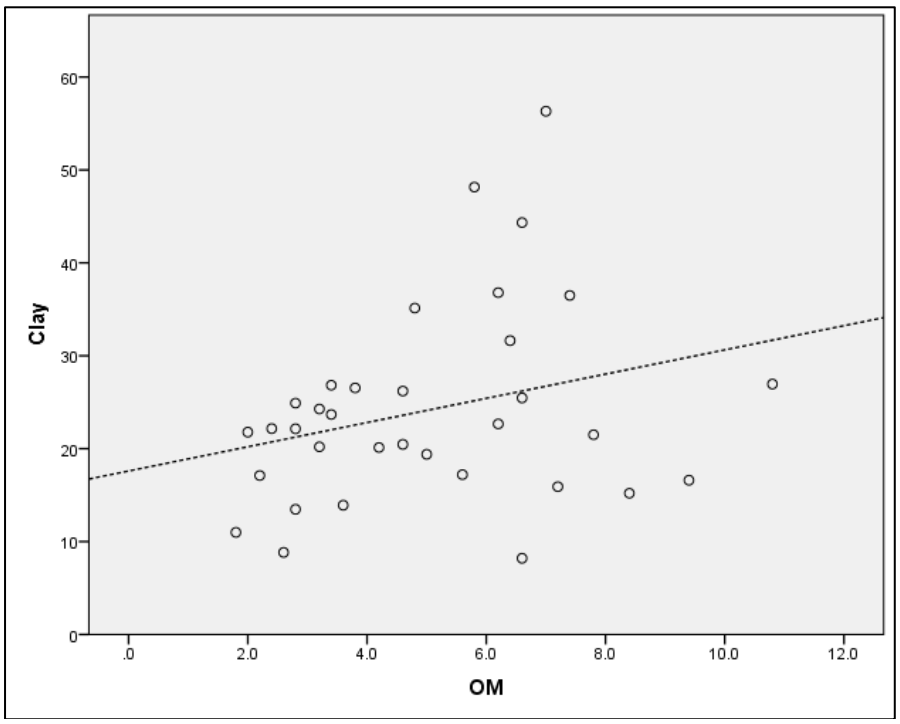

Figure 32. Box-plot showing the correlation between the percentage of clay particles and the percentage of organic material for the Megiddo samples.

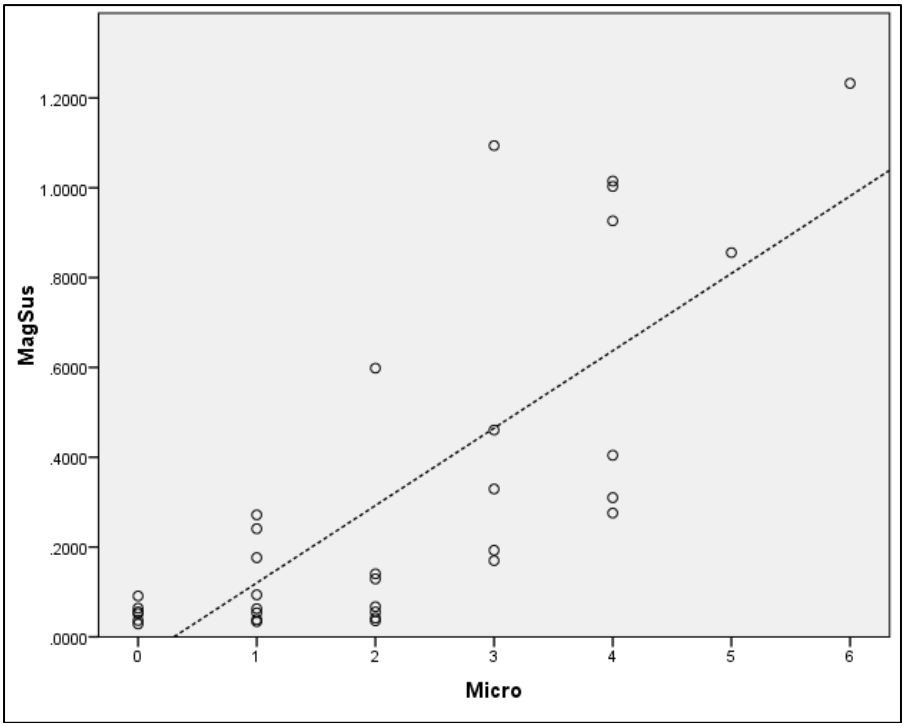

Figure 33. Box-plot showing the correlation between mass-specific magnetic susceptibility and anthropogenic microartefact scores for the Megiddo samples.

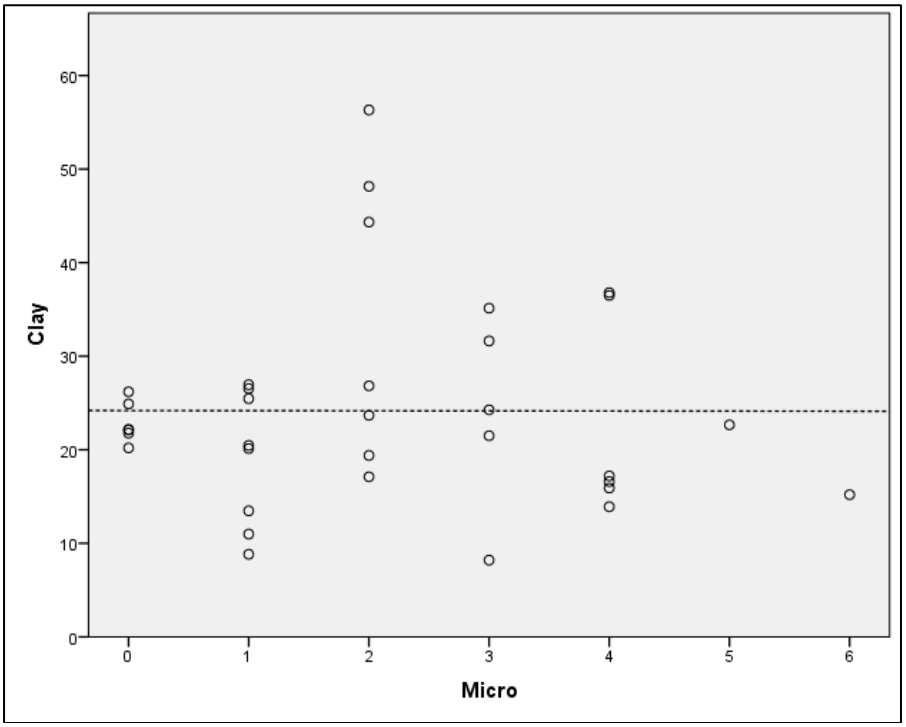

Figure 34. Box-plot showing the correlation between the percentage of clay particles and anthropogenic microartefact scores for the Megiddo samples.

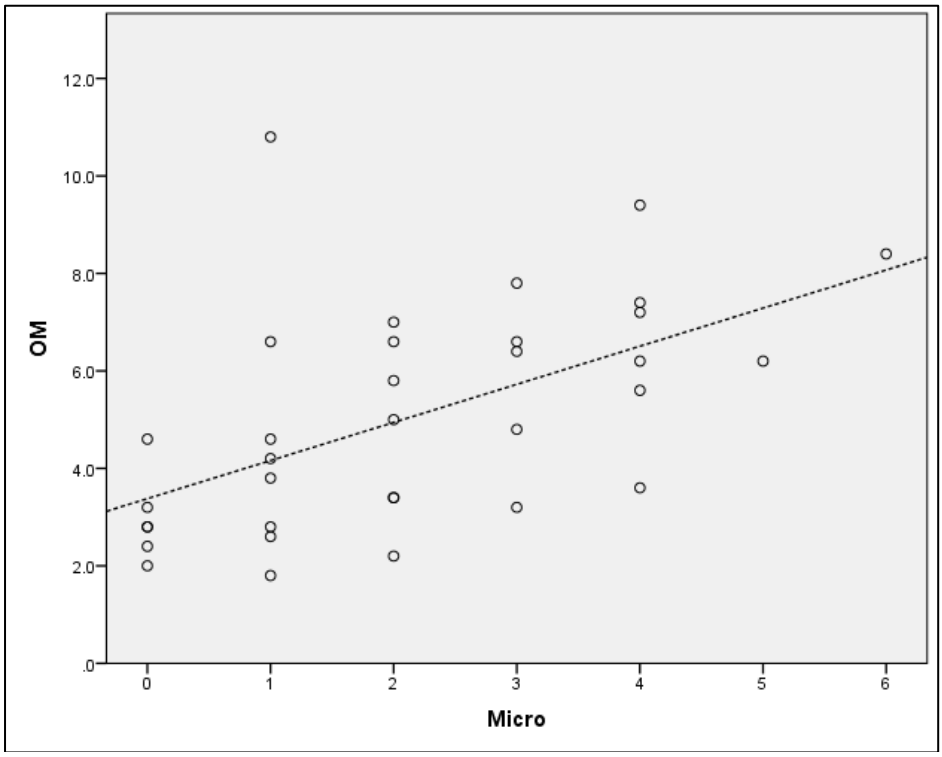

Figure 35. Box-plot showing the correlation between the percentage of organic material and anthropogenic microartefact scores for the Megiddo samples.

Grain-size by sample

Phi Size Class	Total Weight: 38.15	Weight %	Cum. % Coarser	Grain Size %	
-1	0.56	1.47	1.47		
0	1.80	4.72	6.19		
1	4.69	12.29	18.48		
2	3.78	9.91	28.39		
3	3.40	8.91	37.30		
3.8	21.50	56.36	43.64		
4	2.78	7.29	44.59	44.39	*Sand*
4.1	21.00	55.05	44.95		
4.3	21.00	55.05	44.95		
4.8	20.50	53.74	46.26		
5.5	19.00	49.80	50.20		
6.3	16.00	41.94	58.06		
6.7	14.00	36.70	63.30		
7.2	11.50	30.14	69.86		
7.7	10.50	27.52	72.48		
8.2	8.50	22.28	77.72	30.70	*Silt*
8.7	7.50	19.66	80.34		
9.5	5.00	13.11	86.89		
				24.90	*Clay*

Table 22. Grain-size analysis data for Megiddo sample MEG/10/K/1A.

Phi Size Class	Total Weight: 38.40	Weight %	Cum. % Coarser	Grain Size %	
-1	0.99	2.58	2.58		
0	3.25	8.46	11.04		
1	5.23	13.62	24.66		
2	4.25	11.07	35.73		
3	3.72	9.69	45.42		
3.8	20.50	53.39	46.61		
4	2.83	7.37	52.79	50.41	*Sand*
4.1	18.50	48.18	51.82		
4.3	18.00	46.88	53.13		
4.8	15.50	40.36	59.64		
5.5	15.00	39.06	60.94		
6.3	13.00	33.85	66.15		
6.7	12.50	32.55	67.45		
7.2	11.00	28.65	71.35		
7.7	9.00	23.44	76.56		
8.2	8.00	20.83	79.17	27.46	*Silt*
8.7	6.50	16.93	83.07		
9.5	5.50	14.32	85.68		
				22.14	*Clay*

Table 23. Grain-size analysis data for Megiddo sample MEG/10/K/1B.

Phi Size Class	Total Weight: 38.35	Weight %	Cum. % Coarser	Grain Size %	
-1	0.37	0.96	0.96		
0	2.87	7.48	8.45		
1	5.70	14.86	23.31		
2	4.16	10.85	34.16		
3	3.83	9.99	44.15		
3.8	17.50	45.63	54.37		
4	3.36	8.76	52.91	54.32	*Sand*
4.1	17.00	44.33	55.67		
4.3	16.50	43.02	56.98		
4.8	15.50	40.42	59.58		
5.5	15.50	40.42	59.58		
6.3	13.50	35.20	64.80		
6.7	12.50	32.59	67.41		
7.2	10.50	27.38	72.62		
7.7	9.00	23.47	76.53		
8.2	8.00	20.86	79.14	23.52	*Silt*
8.7	7.00	18.25	81.75		
9.5	5.50	14.34	85.66		
				22.16	*Clay*

Table 24. Grain-size analysis data for Megiddo sample MEG/10/K/2A.

Phi Size Class	Total Weight: 38.43	Weight %	Cum. % Coarser	Grain Size %	
-1	1.18	3.07	3.07		
0	3.06	7.96	11.03		
1	5.28	13.74	24.77		
2	4.20	10.93	35.70		
3	3.76	9.78	45.49		
3.8	18.50	48.14	51.86		
4	3.24	8.43	53.92	52.55	Sand
4.1	18.50	48.14	51.86		
4.3	17.50	45.54	54.46		
4.8	15.50	40.33	59.67		
5.5	14.00	36.43	63.57		
6.3	12.50	32.53	67.47		
6.7	11.50	29.92	70.08		
7.2	9.50	24.72	75.28		
7.7	8.50	22.12	77.88		
8.2	7.00	18.21	81.79	27.29	Silt
8.7	6.50	16.91	83.09		
9.5	4.50	11.71	88.29		
				20.17	Clay

Table 25. Grain-size analysis data for Megiddo sample MEG/10/K/2B.

Phi Size Class	Total Weight: 39.11	Weight %	Cum. % Coarser	Grain Size %	
-1	0.60	1.53	1.53		
0	1.81	4.63	6.16		
1	3.78	9.67	15.83		
2	3.35	8.57	24.39		
3	3.34	8.54	32.93		
3.8	23.50	60.09	39.91		
4	3.15	8.05	40.99	40.69	Sand
4.1	23.00	58.81	41.19		
4.3	22.50	57.53	42.47		
4.8	19.50	49.86	50.14		
5.5	17.50	44.75	55.25		
6.3	14.00	35.80	64.20		
6.7	13.00	33.24	66.76		
7.2	11.00	28.13	71.87		
7.7	8.50	21.73	78.27		
8.2	7.50	19.18	80.82	38.85	Silt
8.7	6.00	15.34	84.66		
9.5	3.50	8.95	91.05		
				20.46	Clay

Table 26. Grain-size analysis data for Megiddo sample MEG/10/K/2C.

Phi Size Class	Total Weight: 38.67	Weight %	Cum. % Coarser	Grain Size %	
-1	0.64	1.66	1.66		
0	2.34	6.05	7.71		
1	3.64	9.41	17.12		
2	3.10	8.02	25.14		
3	3.00	7.76	32.89		
3.8	21.00	54.31	45.69		
4	3.46	8.95	41.84	44.41	Sand
4.1	21.00	54.31	45.69		
4.3	20.50	53.01	46.99		
4.8	16.50	42.67	57.33		
5.5	14.00	36.20	63.80		
6.3	14.00	36.20	63.80		
6.7	13.00	33.62	66.38		
7.2	10.50	27.15	72.85		
7.7	8.50	21.98	78.02		
8.2	6.50	16.81	83.19	36.20	Silt
8.7	5.00	12.93	87.07		
9.5	3.50	9.05	90.95		
				19.39	Clay

Table 27. Grain-size analysis data for Megiddo sample MEG/10/K/2D.

Phi Size Class	Total Weight: 38.42	Weight %	Cum. % Coarser	Grain Size %	
-1	0.74	1.93	1.93		
0	1.45	3.77	5.70		
1	2.56	6.66	12.36		
2	2.14	5.57	17.93		
3	2.04	5.31	23.24		
3.8	27.00	70.28	29.72		
4	1.87	4.87	28.11	29.19	Sand
4.1	27.00	70.28	29.72		
4.3	26.50	68.97	31.03		
4.8	25.50	66.37	33.63		
5.5	23.00	59.86	40.14		
6.3	21.50	55.96	44.04		
6.7	18.00	46.85	53.15		
7.2	16.50	42.95	57.05		
7.7	14.50	37.74	62.26		
8.2	12.50	32.54	67.46	35.68	Silt
8.7	11.50	29.93	70.07		
9.5	7.00	18.22	81.78		
				35.14	Clay

Table 28. Grain-size analysis data for Megiddo sample MEG/10/K/3A.

Phi Size Class	Total Weight: 38.21	Weight %	Cum. % Coarser	Grain Size %	
-1	0.60	1.57	1.57		
0	1.67	4.37	5.94		
1	3.32	8.69	14.63		
2	2.80	7.33	21.96		
3	2.81	7.35	29.31		
3.8	25.00	65.43	34.57		
4	2.90	7.59	36.90	35.78	Sand
4.1	24.50	64.12	35.88		
4.3	23.50	61.50	38.50		
4.8	21.50	56.27	43.73		
5.5	19.50	51.03	48.97		
6.3	16.50	43.18	56.82		
6.7	15.00	39.26	60.74		
7.2	14.00	36.64	63.36		
7.7	11.00	28.79	71.21		
8.2	9.50	24.86	75.14	37.39	Silt
8.7	7.50	19.63	80.37		
9.5	5.00	13.09	86.91		
				26.83	Clay

Table 29. Grain-size analysis data for Megiddo sample MEG/10/K/3B.

Phi Size Class	Total Weight: 38.53	Weight %	Cum. % Coarser	Grain Size %	
-1	0.80	2.08	2.08		
0	1.55	4.02	6.10		
1	4.57	11.86	17.96		
2	3.58	9.29	27.25		
3	3.19	8.28	35.53		
3.8	19.00	49.31	50.69		
4	3.01	7.81	43.34	48.67	Sand
4.1	18.50	48.01	51.99		
4.3	17.50	45.42	54.58		
4.8	15.50	40.23	59.77		
5.5	14.00	36.34	63.66		
6.3	13.50	35.04	64.96		
6.7	12.00	31.14	68.86		
7.2	10.50	27.25	72.75		
7.7	8.50	22.06	77.94		
8.2	7.00	18.17	81.83	31.21	Silt
8.7	4.50	11.68	88.32		
9.5	3.50	9.08	90.92		
				20.11	Clay

Table 30. Grain-size analysis data for Megiddo sample MEG/10/K/3C.

Phi Size Class	Total Weight: 38.00	Weight %	Cum. % Coarser	Grain Size %	
-1	0.47	1.24	1.24		
0	3.46	9.11	10.34		
1	5.82	15.32	25.66		
2	4.29	11.29	36.95		
3	3.96	10.42	47.37		
3.8	17.00	44.74	55.26		
4	3.87	10.18	57.55	56.46	Sand
4.1	16.50	43.42	56.58		
4.3	16.00	42.11	57.89		
4.8	14.50	38.16	61.84		
5.5	13.00	34.21	65.79		
6.3	10.50	27.63	72.37		
6.7	9.50	25.00	75.00		
7.2	8.50	22.37	77.63		
7.7	7.50	19.74	80.26		
8.2	5.50	14.47	85.53	26.43	Silt
8.7	3.50	9.21	90.79		
9.5	2.50	6.58	93.42		
				17.11	Clay

Table 31. Grain-size analysis data for Megiddo sample MEG/10/K/3D.

Phi Size Class	Total Weight: 38.62	Weight %	Cum. % Coarser	Grain Size %	
-1	2.76	7.15	7.15		
0	1.85	4.79	11.94		
1	2.78	7.20	19.14		
2	2.47	6.40	25.53		
3	2.58	6.68	32.21		
3.8	22.50	58.26	41.74		
4	3.67	9.50	41.71	42.59	Sand
4.1	21.50	55.67	44.33		
4.3	21.00	54.38	45.62		
4.8	19.50	50.49	49.51		
5.5	16.50	42.72	57.28		
6.3	14.50	37.55	62.45		
6.7	12.50	32.37	67.63		
7.2	11.50	29.78	70.22		
7.7	9.50	24.60	75.40		
8.2	8.00	20.71	79.29	34.75	Silt
8.7	5.50	14.24	85.76		
9.5	4.50	11.65	88.35		
				22.66	Clay

Table 32. Grain-size analysis data for Megiddo sample MEG/10/K/3E.

Phi Size Class	Total Weight: 38.73	Weight %	Cum. % Coarser	Grain Size %	
-1	0.06	0.15	0.15		
0	1.41	3.64	3.80		
1	1.77	4.57	8.37		
2	2.42	6.25	14.61		
3	2.11	5.45	20.06		
3.8	26.50	68.42	31.58		
4	2.46	6.35	26.41	30.72	Sand
4.1	25.50	65.84	34.16		
4.3	25.00	64.55	35.45		
4.8	24.00	61.97	38.03		
5.5	22.50	58.09	41.91		
6.3	21.00	54.22	45.78		
6.7	19.50	50.35	49.65		
7.2	18.50	47.77	52.23		
7.7	15.50	40.02	59.98		
8.2	13.00	33.57	66.43	32.49	Silt
8.7	10.50	27.11	72.89		
9.5	7.50	19.36	80.64		
				36.79	Clay

Table 33. Grain-size analysis data for Megiddo sample MEG/10/K/3F.

Phi Size Class	Total Weight: 39.05	Weight %	Cum. % Coarser	Grain Size %	
-1	0.42	1.08	1.08		
0	1.47	3.76	4.84		
1	3.24	8.30	13.14		
2	2.59	6.63	19.77		
3	2.12	5.43	25.20		
3.8	28.50	72.98	27.02		
4	1.99	5.10	30.29	28.54	Sand
4.1	28.00	71.70	28.30		
4.3	28.00	71.70	28.30		
4.8	26.00	66.58	33.42		
5.5	25.00	64.02	35.98		
6.3	22.00	56.34	43.66		
6.7	19.50	49.94	50.06		
7.2	17.50	44.81	55.19		
7.7	15.50	39.69	60.31		
8.2	13.00	33.29	66.71	34.97	Silt
8.7	11.00	28.17	71.83		
9.5	8.00	20.49	79.51		
				36.49	Clay

Table 34. Grain-size analysis data for Megiddo sample MEG/10/K/3G.

Phi Size Class	Total Weight: 35.82	Weight %	Cum. % Coarser	Grain Size %	
-1	2.38	6.64	6.64		
0	1.44	4.02	10.66		
1	1.85	5.16	15.83		
2	1.48	4.13	19.96		
3	1.35	3.77	23.73		
3.8	25.50	71.19	28.81		
4	1.26	3.52	27.25	28.75	Sand
4.1	25.00	69.79	30.21		
4.3	24.50	68.40	31.60		
4.8	23.50	65.61	34.39		
5.5	22.00	61.42	38.58		
6.3	21.50	60.02	39.98		
6.7	20.00	55.83	44.17		
7.2	18.50	51.65	48.35		
7.7	18.00	50.25	49.75		
8.2	16.50	46.06	53.94	23.09	Silt
8.7	14.00	39.08	60.92		
9.5	12.50	34.90	65.10		
				48.16	Clay

Table 35. Grain-size analysis data for Megiddo sample MEG/10/K/4A.

Phi Size Class	Total Weight: 36.95	Weight %	Cum. % Coarser	Grain Size %	
-1	0.62	1.68	1.68		
0	3.27	8.85	10.53		
1	5.16	13.96	24.49		
2	3.86	10.45	34.94		
3	3.34	9.04	43.98		
3.8	18.50	50.07	49.93		
4	2.95	7.98	51.96	52.86	Sand
4.1	16.00	43.30	56.70		
4.3	16.00	43.30	56.70		
4.8	15.00	40.60	59.40		
5.5	14.00	37.89	62.11		
6.3	12.50	33.83	66.17		
6.7	11.50	31.12	68.88		
7.2	10.00	27.06	72.94		
7.7	9.50	25.71	74.29		
8.2	8.00	21.65	78.35	23.46	Silt
8.7	6.00	16.24	83.76		
9.5	4.50	12.18	87.82		
				23.68	Clay

Table 36. Grain-size analysis data for Megiddo sample MEG/10/K/4B.

Phi Size Class	Total Weight: 38.12	Weight %	Cum. % Coarser	Grain Size %	
-1	0.18	0.47	0.47		
0	2.38	6.24	6.72		
1	4.81	12.62	19.33		
2	3.74	9.81	29.14		
3	3.30	8.66	37.80		
3.8	21.00	55.09	44.91		
4	3.17	8.32	46.12	46.62	Sand
4.1	19.50	51.15	48.85		
4.3	19.50	51.15	48.85		
4.8	18.00	47.22	52.78		
5.5	17.00	44.60	55.40		
6.3	14.00	36.73	63.27		
6.7	12.50	32.79	67.21		
7.2	11.00	28.86	71.14		
7.7	10.00	26.23	73.77		
8.2	8.50	22.30	77.70	29.11	Silt
8.7	6.00	15.74	84.26		
9.5	4.50	11.80	88.20		
				24.27	Clay

Table 37. Grain-size analysis data for Megiddo sample MEG/10/K/4C.

Phi Size Class	Total Weight: 38.97	Weight %	Cum. % Coarser	Grain Size %	
-1	0.13	0.33	0.33		
0	1.80	4.62	4.95		
1	4.44	11.39	16.35		
2	4.19	10.75	27.10		
3	3.96	10.16	37.26		
3.8	19.00	48.76	51.24		
4	4.37	11.21	48.47	50.75	Sand
4.1	18.50	47.47	52.53		
4.3	18.00	46.19	53.81		
4.8	16.50	42.34	57.66		
5.5	14.00	35.93	64.07		
6.3	12.00	30.79	69.21		
6.7	9.50	24.38	75.62		
7.2	7.50	19.25	80.75		
7.7	6.00	15.40	84.60		
8.2	4.50	11.55	88.45	35.78	Silt
8.7	3.00	7.70	92.30		
9.5	2.50	6.42	93.58		
				13.47	Clay

Table 38. Grain-size analysis data for Megiddo sample MEG/10/K/4D.

Phi Size Class	Total Weight: 35.25	Weight %	Cum. % Coarser	Grain Size %	
-1	0.12	0.34	0.34		
0	0.66	1.87	2.21		
1	1.85	5.25	7.46		
2	1.48	4.20	11.66		
3	1.32	3.74	15.40		
3.8	26.50	75.18	24.82		
4	1.29	3.66	19.06	24.32	Sand
4.1	25.00	70.92	29.08		
4.3	24.00	68.09	31.91		
4.8	22.00	62.41	37.59		
5.5	19.00	53.90	46.10		
6.3	15.00	42.55	57.45		
6.7	13.50	38.30	61.70		
7.2	12.00	34.04	65.96		
7.7	10.00	28.37	71.63		
8.2	9.00	25.53	74.47	48.73	Silt
8.7	7.50	21.28	78.72		
9.5	6.00	17.02	82.98		
				26.95	Clay

Table 39. Grain-size analysis data for Megiddo sample MEG/10/K/4E.

Phi Size Class	Total Weight: 34.53	Weight %	Cum. % Coarser	Grain Size %	
-1	2.91	8.43	8.43		
0	1.63	4.72	13.15		
1	2.74	7.94	21.08		
2	2.48	7.18	28.27		
3	2.51	7.27	35.53		
3.8	19.00	55.02	44.98		
4	4.00	11.58	47.12	46.66	Sand
4.1	18.00	52.13	47.87		
4.3	17.50	50.68	49.32		
4.8	14.50	41.99	58.01		
5.5	13.00	37.65	62.35		
6.3	9.50	27.51	72.49		
6.7	8.50	24.62	75.38		
7.2	7.50	21.72	78.28		
7.7	6.00	17.38	82.62		
8.2	4.50	13.03	86.97	38.14	Silt
8.7	4.50	13.03	86.97		
9.5	3.00	8.69	91.31		
				15.20	Clay

Table 40. Grain-size analysis data for Megiddo sample MEG/10/K/SA.

Phi Size Class	Total Weight: 37.15	Weight %	Cum. % Coarser	Grain Size %	
-1	1.11	2.99	2.99		
0	1.78	4.79	7.78		
1	2.97	7.99	15.77		
2	2.21	5.95	21.72		
3	2.14	5.76	27.48		
3.8	23.00	61.91	38.09		
4	2.33	6.27	33.76	37.09	Sand
4.1	22.50	60.57	39.43		
4.3	22.00	59.22	40.78		
4.8	20.50	55.18	44.82		
5.5	19.50	52.49	47.51		
6.3	17.00	45.76	54.24		
6.7	16.00	43.07	56.93		
7.2	14.00	37.69	62.31		
7.7	13.00	34.99	65.01		
8.2	10.50	28.26	71.74	31.28	Silt
8.7	8.50	22.88	77.12		
9.5	6.00	16.15	83.85		
				31.63	Clay

Table 41. Grain-size analysis data for Megiddo sample MEG/10/K/SB.

Phi Size Class	Total Weight: 37.29	Weight %	Cum. % Coarser	Grain Size %	
-1	0.43	1.15	1.15		
0	0.65	1.74	2.90		
1	1.02	2.74	5.63		
2	0.84	2.25	7.88		
3	0.86	2.31	10.19		
3.8	29.00	77.77	22.23		
4	0.90	2.41	12.60	19.02	Sand
4.1	29.00	77.77	22.23		
4.3	28.50	76.43	23.57		
4.8	28.50	76.43	23.57		
5.5	27.00	72.41	27.59		
6.3	26.50	71.06	28.94		
6.7	24.50	65.70	34.30		
7.2	24.00	64.36	35.64		
7.7	22.00	59.00	41.00		
8.2	20.00	53.63	46.37	24.66	Silt
8.7	18.50	49.61	50.39		
9.5	16.00	42.91	57.09		
				56.32	Clay

Table 42. Grain-size analysis data for Megiddo sample MEG/10/K/SC.

Phi Size Class	Total Weight: 39.12	Weight %	Cum. % Coarser	Grain Size %	
-1	0.50	1.28	1.28		
0	1.67	4.27	5.55		
1	3.34	8.54	14.08		
2	2.98	7.62	21.70		
3	3.00	7.67	29.37		
3.8	23.00	58.79	41.21		
4	3.47	8.87	38.24	41.07	Sand
4.1	22.00	56.24	43.76		
4.3	21.50	54.96	45.04		
4.8	20.50	52.40	47.60		
5.5	18.50	47.29	52.71		
6.3	16.50	42.18	57.82		
6.7	15.00	38.34	61.66		
7.2	12.50	31.95	68.05		
7.7	11.50	29.40	70.60		
8.2	9.00	23.01	76.99	32.73	Silt
8.7	7.50	19.17	80.83		
9.5	5.50	14.06	85.94		
				26.20	Clay

Table 43. Grain-size analysis data for Megiddo sample MEG/10/K/SD.

Phi Size Class	Total Weight: 36.15	Weight %	Cum. % Coarser	Grain Size %	
-1	1.64	4.54	4.54		
0	2.76	7.63	12.17		
1	3.43	9.49	21.66		
2	2.70	7.47	29.13		
3	2.79	7.72	36.85		
3.8	18.50	51.18	48.82		
4	3.65	10.10	46.94	49.12	Sand
4.1	17.50	48.41	51.59		
4.3	16.50	45.64	54.36		
4.8	14.50	40.11	59.89		
5.5	11.50	31.81	68.19		
6.3	10.00	27.66	72.34		
6.7	9.00	24.90	75.10		
7.2	7.50	20.75	79.25		
7.7	6.50	17.98	82.02		
8.2	5.00	13.83	86.17	34.97	Silt
8.7	4.00	11.07	88.93		
9.5	3.00	8.30	91.70		
				15.91	Clay

Table 44. Grain-size analysis data for Megiddo sample MEG/10/K/SE.

Phi Size Class	Total Weight: 39.56	Weight %	Cum. % Coarser	Grain Size %	
-1	0.47	1.19	1.19		
0	1.46	3.69	4.88		
1	3.45	8.72	13.60		
2	3.03	7.66	21.26		
3	3.03	7.66	28.92		
3.8	22.50	56.88	43.12		
4	3.98	10.06	38.98	42.59	Sand
4.1	21.50	54.35	45.65		
4.3	21.00	53.08	46.92		
4.8	20.50	51.82	48.18		
5.5	17.50	44.24	55.76		
6.3	16.00	40.44	59.56		
6.7	15.00	37.92	62.08		
7.2	13.50	34.13	65.87		
7.7	11.50	29.07	70.93		
8.2	9.50	24.01	75.99	30.87	Silt
8.7	8.00	20.22	79.78		
9.5	5.50	13.90	86.10		
				26.54	Clay

Table 45. Grain-size analysis data for Megiddo sample MEG/10/K/SF.

Phi Size Class	Total Weight: 37.75	Weight %	Cum. % Coarser	Grain Size %	
-1	3.39	8.98	8.98		
0	2.42	6.41	15.39		
1	3.80	10.07	25.46		
2	3.10	8.21	33.67		
3	3.08	8.16	41.83		
3.8	16.00	42.38	57.62		
4	4.08	10.81	52.64	56.40	Sand
4.1	15.50	41.06	58.94		
4.3	14.50	38.41	61.59		
4.8	12.50	33.11	66.89		
5.5	11.00	29.14	70.86		
6.3	9.00	23.84	76.16		
6.7	8.50	22.52	77.48		
7.2	7.00	18.54	81.46		
7.7	6.50	17.22	82.78		
8.2	6.00	15.89	84.11	27.05	Silt
8.7	5.00	13.25	86.75		
9.5	3.50	9.27	90.73		
				16.56	Clay

Table 46. Grain-size analysis data for Megiddo sample MEG/10/K/SG.

Phi Size Class	Total Weight: 39.63	Weight %	Cum. % Coarser	Grain Size %	
-1	0.19	0.48	0.48		
0	3.72	9.39	9.87		
1	8.07	20.36	30.23		
2	5.44	13.73	43.96		
3	4.43	11.18	55.13		
3.8	15.00	37.85	62.15		
4	4.22	10.65	65.78	63.78	Sand
4.1	14.50	36.59	63.41		
4.3	13.00	32.80	67.20		
4.8	11.50	29.02	70.98		
5.5	10.00	25.23	74.77		
6.3	7.50	18.93	81.07		
6.7	6.50	16.40	83.60		
7.2	6.00	15.14	84.86		
7.7	4.00	10.09	89.91		
8.2	3.00	7.57	92.43	27.39	Silt
8.7	2.50	6.31	93.69		
9.5	2.00	5.05	94.95		
				8.83	Clay

Table 47. Grain-size analysis data for Megiddo sample MEG/10/AA/GA.

Phi Size Class	Total Weight: 39.42	Weight %	Cum. % Coarser	Grain Size %	
-1	4.20	10.65	10.65		
0	2.56	6.49	17.15		
1	3.09	7.84	24.99		
2	2.70	6.85	31.84		
3	2.81	7.13	38.96		
3.8	15.50	39.32	60.68		
4	5.57	14.13	53.09	58.57	Sand
4.1	15.00	38.05	61.95		
4.3	13.00	32.98	67.02		
4.8	12.00	30.44	69.56		
5.5	9.50	24.10	75.90		
6.3	7.00	17.76	82.24		
6.7	6.00	15.22	84.78		
7.2	5.50	13.95	86.05		
7.7	3.50	8.88	91.12		
8.2	3.00	7.61	92.39	33.18	Silt
8.7	2.50	6.34	93.66		
9.5	2.00	5.07	94.93		
				8.24	Clay

Table 48. Grain-size analysis data for Megiddo sample MEG/10/AA/GB.

Phi Size Class	Total Weight: 39.42	Weight %	Cum. % Coarser	Grain Size %	
-1	0.87	2.12	2.12		
0	4.40	10.74	12.87		
1	7.46	18.22	31.09		
2	4.66	11.38	42.47		
3	3.75	9.16	51.62		
3.8	15.50	37.85	62.15		
4	3.89	9.50	61.12	62.62	Sand
4.1	14.50	35.41	64.59		
4.3	12.50	30.53	69.47		
4.8	11.50	28.08	71.92		
5.5	11.00	26.86	73.14		
6.3	10.00	24.42	75.58		
6.7	9.50	23.20	76.80		
7.2	6.50	15.87	84.13		
7.7	5.00	12.21	87.79		
8.2	4.00	9.77	90.23	26.39	Silt
8.7	3.50	8.55	91.45		
9.5	2.00	4.88	95.12		
				10.99	Clay

Table 49. Grain-size analysis data for Megiddo sample MEG/10/AA/GC.

Phi Size Class	Total Weight: 39.54	Weight %	Cum. % Coarser	Grain Size %	
-1	0.94	2.38	2.38		
0	1.98	5.01	7.38		
1	3.18	8.04	15.43		
2	2.56	6.47	21.90		
3	2.53	6.40	28.30		
3.8	23.00	58.17	41.83		
4	3.90	9.86	38.16	41.87	Sand
4.1	21.50	54.38	45.62		
4.3	21.00	53.11	46.89		
4.8	17.50	44.26	55.74		
5.5	15.50	39.20	60.80		
6.3	12.00	30.35	69.65		
6.7	10.50	26.56	73.44		
7.2	8.00	20.23	79.77		
7.7	6.50	16.44	83.56		
8.2	4.50	11.38	88.62	44.22	Silt
8.7	3.50	8.85	91.15		
9.5	2.50	6.32	93.68		
				13.91	Clay

Table 50. Grain-size analysis data for Megiddo sample MEG/10/AA/GD.

Phi Size Class	Total Weight: 40.18	Weight %	Cum. % Coarser	Grain Size %	
-1	0.51	1.27	1.27		
0	3.51	8.74	10.00		
1	5.33	13.27	23.27		
2	3.97	9.88	33.15		
3	3.54	8.81	41.96		
3.8	18.50	46.04	53.96		
4	3.63	9.03	51.00	53.38	Sand
4.1	18.00	44.80	55.20		
4.3	17.50	43.55	56.45		
4.8	16.00	39.82	60.18		
5.5	14.00	34.84	65.16		
6.3	12.50	31.11	68.89		
6.7	12.00	29.87	70.13		
7.2	10.00	24.89	75.11		
7.7	9.50	23.64	76.36		
8.2	8.00	19.91	80.09	24.84	Silt
8.7	6.50	16.18	83.82		
9.5	5.00	12.44	87.56		
				21.78	Clay

Table 51. Grain-size analysis data for Megiddo sample MEG/10/AA/WA.

Phi Size Class	Total Weight: 38.45	Weight %	Cum. % Coarser	Grain Size %	
-1	0.42	1.09	1.09		
0	0.93	2.42	3.51		
1	2.07	5.38	8.89		
2	1.91	4.97	13.86		
3	2.09	5.44	19.30		
3.8	27.50	71.52	28.48		
4	2.58	6.71	26.01	28.09	Sand
4.1	27.00	70.22	29.78		
4.3	26.50	68.92	31.08		
4.8	24.00	62.42	37.58		
5.5	21.50	55.92	44.08		
6.3	17.50	45.51	54.49		
6.7	14.00	36.41	63.59		
7.2	12.00	31.21	68.79		
7.7	9.00	23.41	76.59		
8.2	7.50	19.51	80.49	50.46	Silt
8.7	5.50	14.30	85.70		
9.5	4.50	11.70	88.30		
				21.46	Clay

Table 52. Grain-size analysis data for Megiddo sample MEG/10/AA/WB.

Phi Size Class	Total Weight: 38.91	Weight %	Cum. % Coarser	Grain Size %	
-1	0.47	1.21	1.21		
0	0.44	1.13	2.34		
1	0.99	2.54	4.88		
2	1.09	2.80	7.68		
3	1.22	3.14	10.82		
3.8	31.50	80.96	19.04		
4	1.67	4.29	15.11	18.16	Sand
4.1	31.00	79.67	20.33		
4.3	30.50	78.39	21.61		
4.8	30.00	77.10	22.90		
5.5	28.50	73.25	26.75		
6.3	26.50	68.11	31.89		
6.7	24.50	62.97	37.03		
7.2	21.50	55.26	44.74		
7.7	18.50	47.55	52.45		
8.2	16.00	41.12	58.88	37.51	Silt
8.7	12.00	30.84	69.16		
9.5	8.50	21.85	78.15		
				44.33	Clay

Table 53. Grain-size analysis data for Megiddo sample MEG/10/AA/WC.

Phi Size Class	Total Weight: 37.31	Weight %	Cum. % Coarser	Grain Size %	
-1	0.75	2.01	2.01		
0	1.40	3.75	5.76		
1	3.03	8.12	13.88		
2	2.59	6.94	20.83		
3	2.45	6.57	27.39		
3.8	24.50	65.67	34.33		
4	2.82	7.56	34.95	34.99	Sand
4.1	24.00	64.33	35.67		
4.3	23.50	62.99	37.01		
4.8	21.50	57.63	42.37		
5.5	18.50	49.58	50.42		
6.3	16.00	42.88	57.12		
6.7	14.50	38.86	61.14		
7.2	13.00	34.84	65.16		
7.7	10.50	28.14	71.86		
8.2	8.50	22.78	77.22	39.55	Silt
8.7	6.50	17.42	82.58		
9.5	4.50	12.06	87.94		
				25.46	Clay

Table 54. Grain-size analysis data for Megiddo sample MEG/10/AA/WD.

Phi Size Class	Total Weight: 39.23	Weight %	Cum. % Coarser	Grain Size %	
-1	2.67	6.81	6.81		
0	1.52	3.87	10.68		
1	2.47	6.30	16.98		
2	2.59	6.60	23.58		
3	3.00	7.65	31.23		
3.8	22.00	56.08	43.92		
4	5.39	13.74	44.97	45.12	Sand
4.1	21.00	53.53	46.47		
4.3	19.50	49.71	50.29		
4.8	17.00	43.33	56.67		
5.5	14.50	36.96	63.04		
6.3	10.50	26.77	73.23		
6.7	9.50	24.22	75.78		
7.2	8.00	20.39	79.61		
7.7	7.00	17.84	82.16		
8.2	6.50	16.57	83.43	37.68	Silt
8.7	4.50	11.47	88.53		
9.5	3.50	8.92	91.08		
				17.21	Clay

Table 55. Grain-size analysis data for Megiddo sample MEG/10/AA/DA.

Phi Size Class	Total Weight: 39.03	Weight %	Cum. % Coarser	Grain Size %	
-1	1.55	3.97	3.97		
0	0.97	2.49	6.46		
1	0.97	2.49	8.94		
2	0.57	1.46	10.40		
3	0.43	1.10	11.50		
3.8	30.50	78.15	21.85		
4	0.42	1.08	12.58	19.19	Sand
4.1	30.00	76.86	23.14		
4.3	30.00	76.86	23.14		
4.8	29.50	75.58	24.42		
5.5	28.50	73.02	26.98		
6.3	27.50	70.46	29.54		
6.7	26.00	66.62	33.38		
7.2	24.50	62.77	37.23		
7.7	24.00	61.49	38.51		
8.2	22.00	56.37	43.63	21.88	Silt
8.7	19.50	49.96	50.04		
9.5	16.50	42.28	57.72		
				58.93	Clay

Table 56. Grain-size analysis data for Megiddo sample MEG/10/BB-104/A.

Phi Size Class	Total Weight: 38.24	Weight %	Cum. % Coarser	Grain Size %	
-1	1.38	3.61	3.61		
0	1.19	3.11	6.72		
1	1.92	5.02	11.74		
2	1.85	4.84	16.58		
3	2.26	5.91	22.49		
3.8	24.00	62.76	37.24		
4	4.89	12.79	35.28	37.46	Sand
4.1	23.00	60.15	39.85		
4.3	22.50	58.84	41.16		
4.8	21.00	54.92	45.08		
5.5	17.50	45.76	54.24		
6.3	14.50	37.92	62.08		
6.7	13.50	35.30	64.70		
7.2	11.00	28.77	71.23		
7.7	10.00	26.15	73.85		
8.2	8.50	22.23	77.77	38.35	Silt
8.7	6.50	17.00	83.00		
9.5	4.50	11.77	88.23		
				24.19	Clay

Table 57. Grain-size analysis data for Megiddo sample MEG/10/K/020A.

Pella

Tables

Table 58. Master table of sample data from Pella containing a summary of the results of all the analytical procedures. Columns:1 = sample name, 2 = colour when dry, 3 = colour when moist, 4 = magnetic susceptibility, 5 = percentage of organic material (LOI), 6 = pH level, 7 = phosphate score, 8 = score of anthropogenic microartefacts, 9 = percentage of sand, 10 = percentage of silt, 11 = percentage of clay, 12 = dimensions of brick in context (where possible).

Sample	Colour (Dry)	Colour (Moist)	X_{LF} ($10^{-6}m^3kg^{-1}$)	% OM	pH	P Score	Micro	Sand	Silt	Clay	Dimensions (cm)
PELLA/11/XXVIII/T/A	10YR 6/3 Pale Brown	10YR 4/3 Brown	0.794970986	12.8	6.90	19	5	41.03	54.43	4.54	Mortar 1h, 1-8v
PELLA/11/XXVIII/T/B	10YR 7/3 Very Pale Brown	10YR 5/6 Yellowish Brown	0.012795276	10.4	7.44	16	3	25.78	68.33	5.89	38 x 38 x 10.5
PELLA/11/XXVIII/T/D	10YR 7/3 Very Pale Brown	10YR 5/6 Yellowish Brown	0.016798419	12.4	7.69	19	3	23.64	70.86	5.50	38 x 38 x 10.5
PELLA/11/XXVIII/W9/A	10YR 8/2 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.005836576	8.8	7.90	0	2	20.00	69.25	10.75	36 x 36 x 10.5
PELLA/11/XXVIII/W9/B	10YR 7/3 Very Pale Brown	10YR 5/6 Yellowish Brown	0.018536585	13.2	8.02	16	3	30.57	55.43	13.99	36 x 36 x 10.5
PELLA/11/XXVIII/W9/C	10YR 6/3 Pale Brown	10YR 4/3 Brown	0.593236715	14.0	7.74	18	5	40.93	53.42	5.65	Mortar 1h, 1-8v
PELLA/11/III/W41/A	2.5Y 7/3 Pale Yellow	2.5Y 5/4 Light Olive Brown	0.093873518	13.6	8.01	14	2	48.53	39.64	11.83	38 x 38 x 9
PELLA/11/III/W41/B	10YR 6/3 Pale Brown	10YR 3/3 Dark Brown	1.065671642	12.2	7.99	19	6	44.40	42.80	12.80	Mortar
PELLA/11/III/W41/C	10YR 6/2 Light Brownish Gray	10YR 4/2 Dark Grayish Brown	0.600199402	11.2	8.09	22	6	47.45	38.81	13.74	38 x 38 x 10
PELLA/11/III/W41/D	10YR 6/3 Pale Brown	10YR 4/3 Brown	1.180058083	9.6	7.54	23	5	42.22	43.03	14.75	Mortar
PELLA/11/III/W41/E	10YR 6/3 Pale Brown	10YR 4/3 Brown	1.326409496	6.4	8.05	22	6	44.42	38.49	17.09	Mortar
PELLA/11/III/W41/F	10YR 6/3 Pale Brown	10YR 4/3 Brown	0.721618954	10.0	8.38	16	5	37.43	46.12	16.45	38 x 38 x 10.5
PELLA/11/III/W41/G	10YR 7/3 Very Pale Brown	10YR 5/4 Yellowish Brown	0.63996139	6.4	8.38	22	4	41.30	42.18	16.53	38 x 38 x 10.5
PELLA/11/III/W41/H	10YR 7/3 Very Pale Brown	10YR 4/3 Brown	0.240847784	6.2	8.31	18	3	47.08	35.98	16.94	38 x 38 x 10.5
PELLA/11/III/W41/I	10YR 7/3 Very Pale Brown	2.5Y 5/3 Light Olive Brown	0.088669951	7.4	8.19	16	3	46.12	39.73	14.15	38 x 38 x 10.5
PELLA/11/XXXIIW/A	10YR 7/3 Very Pale Brown	2.5Y 5/3 Light Olive Brown	0.150099404	6.4	8.23	16	1	31.63	31.91	36.45	Facing
PELLA/11/XXXIIW/B	10YR 7/3 Very Pale Brown	2.5Y 4/3 Olive Brown	0.579766537	11.6	7.82	18	4	31.41	55.94	12.65	
PELLA/11/XXVIII/T/C	10YR 7/4 Very Pale Brown	10YR 6/6 Brownish Yellow	0.020958084	17.0	7.76	16	2	26.67	58.15	15.18	38 x 38 x 10.5
PELLA/11/XXVIII/TW/A	10YR 4/4 Dark Yellowish Brown	10YR 3/4 Dark Yellowish Brown	1.055390702	22.2	7.85	20	3	65.44	25.71	8.85	34 x 8
PELLA/11/XXVIII/TW/B	10YR 5/3 Brown	10YR 4/3 Brown	0.183816184	18.2	7.89	23	3	56.63	36.65	6.72	10
PELLA/11/XXVIII/TW/C	2.5Y 6/3 Light Yellowish Brown	2.5Y 5/4 Light Olive Brown	0.08991009	21.4	7.97	20	3	37.51	57.67	4.81	10
PELLA/11/III/S/A	7.5YR 7/3 Pink	7.5YR 6/6 Reddish Yellow	0.035035035	9.4	8.16	18	1	40.32	36.91	22.77	37 x 10

Table 58 (cont.).

Sample	Colour (Dry)	Colour (Moist)	X_{LF} ($10^{-6}m^3kg^{-1}$)	% OM	pH	P Score	Micro	Sand	Silt	Clay	Dimensions (cm)
PELLA/11/III/S/B	10YR 7/4 Very Pale Brown	10YR 5/6 Yellowish Brown	0.032064128	12.8	7.65	21	1	39.73	44.83	15.44	37 x 10
PELLA/11/III/S/C	10YR 7/3 Very Pale Brown	10YR 6/6 Brownish Yellow	0.017982018	10.4	7.59	21	0	32.80	51.09	16.11	53 x 10
PELLA/11/III/S/D	10YR 7/3 Very Pale Brown	10YR 5/4 Yellowish Brown	0.636636637	11.6	7.90	23	6	37.28	34.85	27.87	mortar
PELLA/11/III/S/E	10YR 7/4 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.12012012	13.0	7.95	18	3	22.43	50.26	27.30	36 x 13
PELLA/11/III/S/F	10YR 6/4 Light Yellowish Brown	10YR 5/4 Yellowish Brown	0.883	13.6	8.19	20	5	25.17	54.11	20.72	mortar
PELLA/11/III/S/G	10YR 6/3 Pale Brown	10YR 4/3 Brown	1.426	12.2	8.67	20	3	35.37	30.05	34.58	
PELLA/DT/70432	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.071	3.6	8.54	17	5	9.36	48.1	42.6	25 x 25 x 10
PELLA/DT/70460	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.05489022	3.6	8.68	18	4	6.51	47.9	45.6	18 x 15 x 11
PELLA/DT/90628	10YR 7/2 Light Gray	10YR 5/2 Grayish Brown	1.764647468	6.8	8.52	23	6	44.6	33.7	21.7	40 x 36 x 10
PELLA/DT/90647	10YR 7/3 Very Pale Brown	10YR 5/4 Yellowish Brown	0.46	9.2	8.16	22	5	30.6	62.9	6.45	45 x 25 x 7
PELLA/DT/50393	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.111776447	11.8	7.98	23	2	22.2	70.7	7.06	23 x 18 x 14
PELLA/DT/50561	7.5YR 7/2 Pinkish Gray	7.5YR 4/3 Brown	0.171968191	3.6	8.37	24	2	54.2	28.2	17.6	15+ x 16 x 14
PELLA/DT/50602	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.043435341	12.6	8.14	21	2	20	74.9	5.16	36 x 32 x 12
PELLA/DT/50608	10YR 7/3 Very Pale Brown	10YR 5/4 Yellowish Brown	0.2243083	12.6	8.16	20	2	12.8	81.8	5.34	55 x 38 x 12
PELLA/DT/70185	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.0367428	11.6	8.41	28	1	17.2	74.5	8.26	34 x 32 x 10
PELLA/DT/71165	10YR 7/3 Very Pale Brown	10YR 5/4 Yellowish Brown	1.462143559	5.8	9.19	19	3	22.5	49.3	28.3	38 x 37 x 10
PELLA/DT/71282	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.060575968	8.4	8.44	13	1	26.5	66.7	6.81	35 x 35 x 12
PELLA/DT/71283	10YR 7/3 Very Pale Brown	10YR 6/4 Light Yellowish Brown	0.037848606	7.6	8.42	9	0	26.6	65.1	8.32	48 x 35 x 10

Sample	Colour (Dry)		Sample	Colour (Moist)
PELLA/11/III/W41/A	2.5Y 7/3 Pale Yellow		PELLA/11/III/W41/I	2.5Y 5/3 Light Olive Brown
			PELLA/11/XXXIIW/A	2.5Y 5/3 Light Olive Brown
PELLA/11/XXVIII/TW/C	2.5Y 6/3 Light Yellowish Brown		PELLA/11/III/W41/A	2.5Y 5/4 Light Olive Brown
			PELLA/11/XXVIII/TW/C	2.5Y 5/4 Light Olive Brown
PELLA/11/III/S/A	7.5YR 7/3 Pink			
			PELLA/11/XXXIIW/B	2.5Y 4/3 Olive Brown
PELLA/DT/50561	7.5YR 7/2 Pinkish Gray			
			PELLA/11/III/S/A	7.5YR 6/6 Reddish Yellow
PELLA/11/XXVIII/T/B	10YR 7/3 Very Pale Brown			
PELLA/11/XXVIII/T/D	10YR 7/3 Very Pale Brown		PELLA/DT/50561	7.5YR 4/3 Brown
PELLA/11/XXVIII/W9/B	10YR 7/3 Very Pale Brown			
PELLA/11/III/W41/G	10YR 7/3 Very Pale Brown		PELLA/11/XXVIII/W9/A	10YR 6/4 Light Yellowish Brown
PELLA/11/III/W41/H	10YR 7/3 Very Pale Brown		PELLA/11/III/S/E	10YR 6/4 Light Yellowish Brown
PELLA/11/III/W41/I	10YR 7/3 Very Pale Brown		PELLA/DT/50393	10YR 6/4 Light Yellowish Brown
PELLA/11/XXXIIW/A	10YR 7/3 Very Pale Brown		PELLA/DT/50602	10YR 6/4 Light Yellowish Brown
PELLA/11/XXXIIW/B	10YR 7/3 Very Pale Brown		PELLA/DT/70185	10YR 6/4 Light Yellowish Brown
PELLA/11/III/S/C	10YR 7/3 Very Pale Brown		PELLA/DT/71282	10YR 6/4 Light Yellowish Brown
PELLA/11/III/S/D	10YR 7/3 Very Pale Brown		PELLA/DT/71283	10YR 6/4 Light Yellowish Brown
PELLA/DT/50393	10YR 7/3 Very Pale Brown			
PELLA/DT/50602	10YR 7/3 Very Pale Brown		PELLA/11/XXVIII/T/C	10YR 6/6 Brownish Yellow
PELLA/DT/50608	10YR 7/3 Very Pale Brown		PELLA/11/III/S/C	10YR 6/6 Brownish Yellow
PELLA/DT/70185	10YR 7/3 Very Pale Brown			
PELLA/DT/71165	10YR 7/3 Very Pale Brown		PELLA/11/III/W41/G	10YR 5/4 Yellowish Brown
PELLA/DT/71282	10YR 7/3 Very Pale Brown		PELLA/11/III/S/D	10YR 5/4 Yellowish Brown
PELLA/DT/71283	10YR 7/3 Very Pale Brown		PELLA/11/III/S/F	10YR 5/4 Yellowish Brown
PELLA/11/XXVIII/T/C	10YR 7/4 Very Pale Brown		PELLA/DT/50608	10YR 5/4 Yellowish Brown
PELLA/11/III/S/B	10YR 7/4 Very Pale Brown		PELLA/DT/71165	10YR 5/4 Yellowish Brown
PELLA/11/III/S/E	10YR 7/4 Very Pale Brown		PELLA/11/XXVIII/T/B	10YR 5/6 Yellowish Brown
PELLA/11/XXVIII/W9/A	10YR 8/2 Very Pale Brown		PELLA/11/XXVIII/T/D	10YR 5/6 Yellowish Brown
			PELLA/11/XXVIII/W9/B	10YR 5/6 Yellowish Brown
PELLA/11/III/W41/C	10YR 6/2 Light Brownish Gray		PELLA/11/III/S/B	10YR 5/6 Yellowish Brown
PELLA/11/XXVIII/T/A	10YR 6/3 Pale Brown		PELLA/11/III/W41/C	10YR 4/2 Dark Grayish Brown
PELLA/11/XXVIII/W9/C	10YR 6/3 Pale Brown			
PELLA/11/III/W41/B	10YR 6/3 Pale Brown		PELLA/11/XXVIII/W9/C	10YR 4/3 Brown
PELLA/11/III/W41/D	10YR 6/3 Pale Brown		PELLA/11/III/W41/D	10YR 4/3 Brown
PELLA/11/III/W41/E	10YR 6/3 Pale Brown		PELLA/11/III/W41/E	10YR 4/3 Brown
PELLA/11/III/W41/F	10YR 6/3 Pale Brown		PELLA/11/III/W41/F	10YR 4/3 Brown
PELLA/11/III/S/G	10YR 6/3 Pale Brown		PELLA/11/III/W41/H	10YR 4/3 Brown
			PELLA/11/XXVIII/TW/B	10YR 4/3 Brown
PELLA/11/III/S/F	10YR 6/4 Light Yellowish Brown		PELLA/11/III/S/G	10YR 4/3 Brown
			PELLA/11/XXVIII/T/A	10YR 4/3 Brown
PELLA/11/XXVIII/TW/B	10YR 5/3 Brown			
			PELLA/11/III/W41/B	10YR 3/3 Dark Brown
PELLA/11/XXVIII/TW/A	10YR 4/4 Dark Yellowish Brown			
			PELLA/11/XXVIII/TW/A	10YR 3/4 Dark Yellowish Brown

Table 59. Pella samples arranged by colour.

Charts

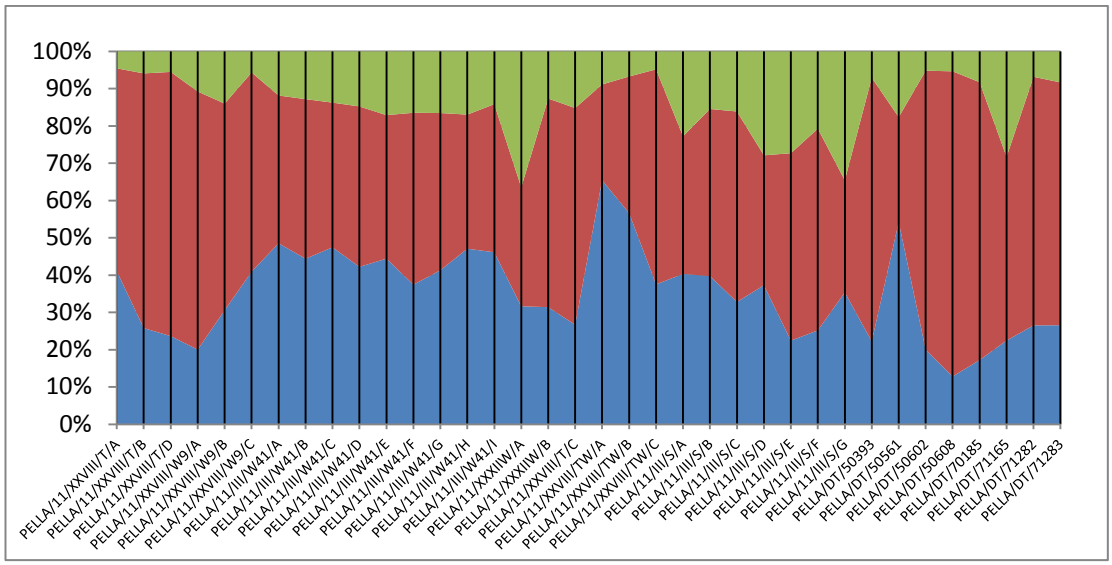

Figure 36. Grain-size precentages of Pella mud-brick samples (Green = Clay, Red = Silt, Blue = Sand).

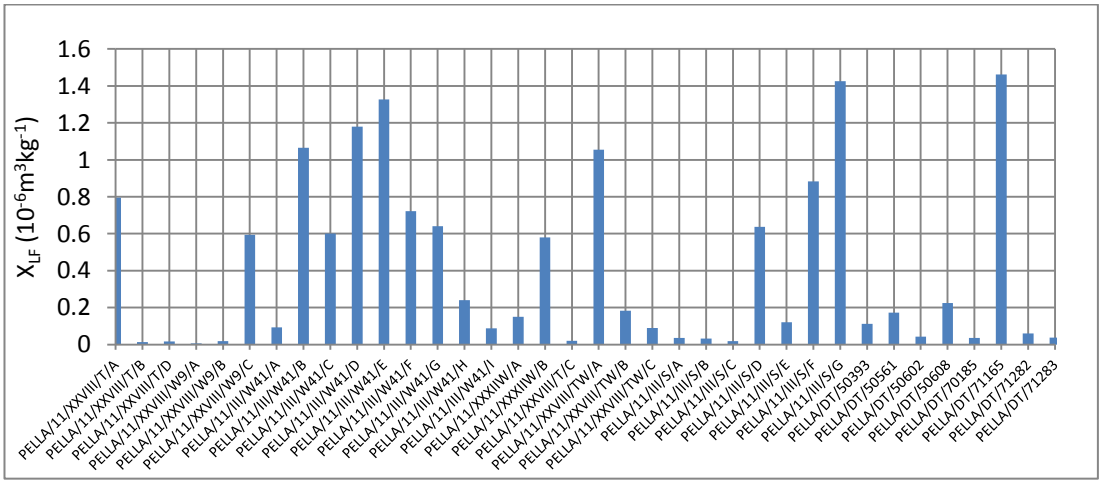

Figure 37. Mass-specific magnetic susceptibility of Pella mud-brick samples.

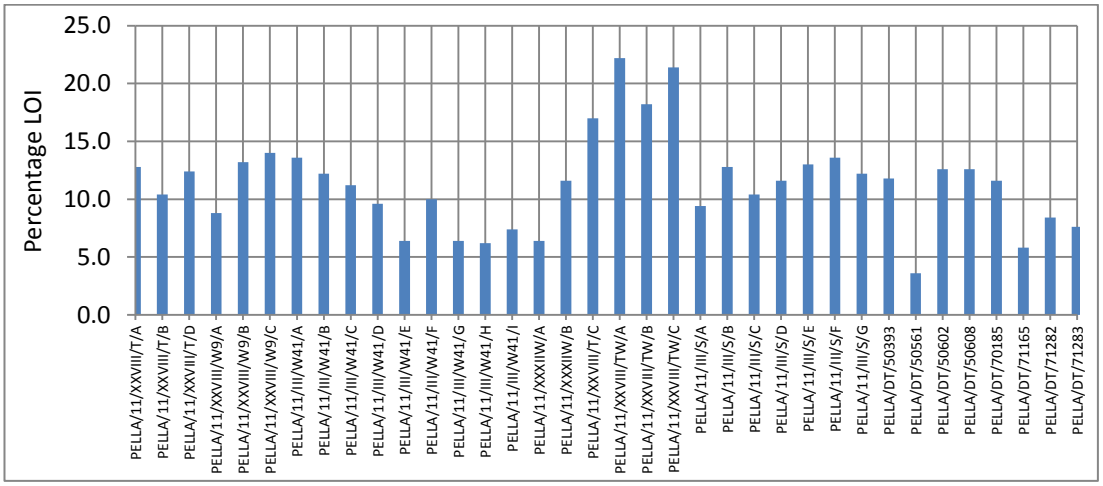

Figure 38. Percentage of organic material in Pella samples, based on LOI.

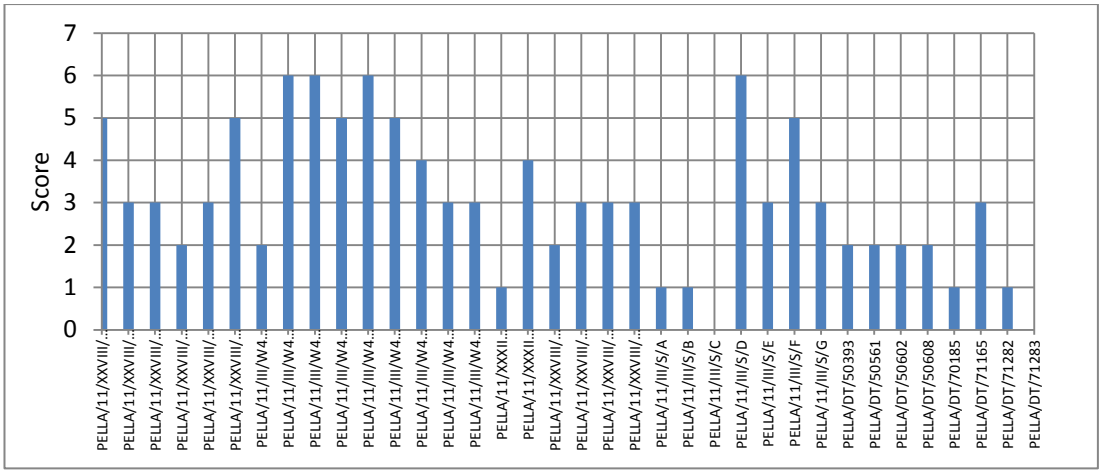

Figure 39. Score of anthropogenic microartefacts in Pella samples.

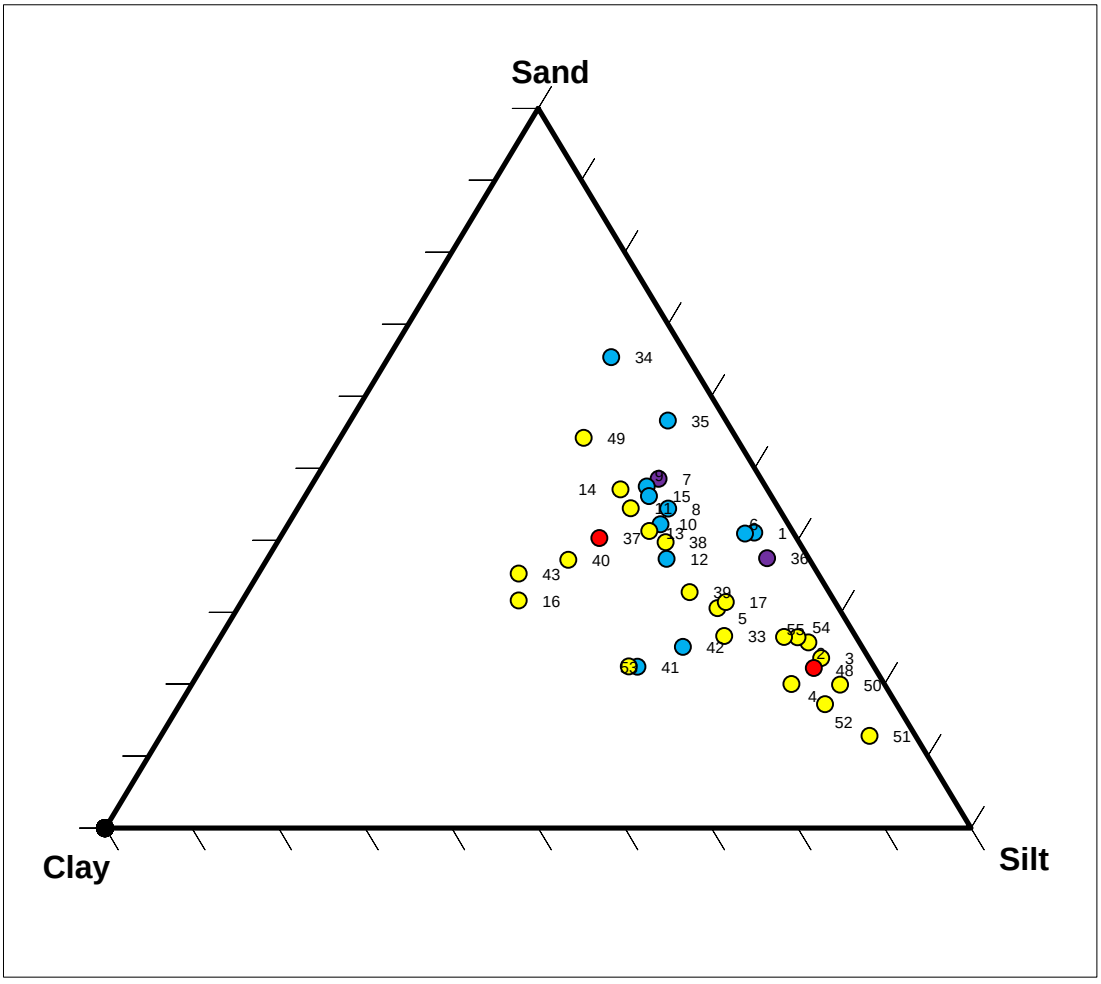

Figure 40. Ternary graph of MB bricks at Pella showing the distribution of grain-size percentages of each sample. Brick types are distinguished by colour (yellow = Light A; red = Light B; purple = Light C; and blue = Dark).

Statistical descriptions

Histograms

In the following charts, note the ‘mean’ and ‘standard deviation’ in the upper right.

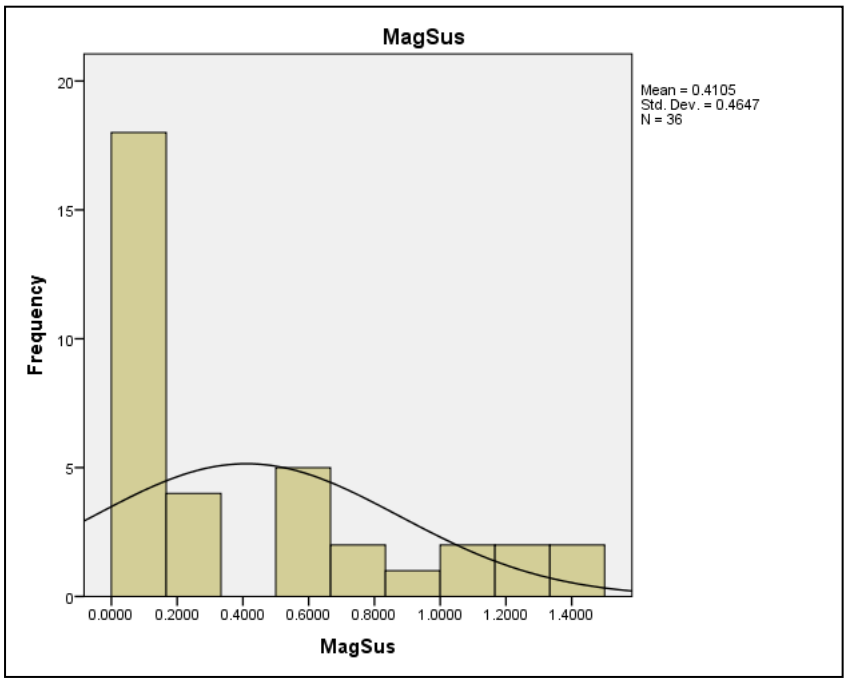

Figure 41. Histogram showing the frequencies of mass-specific magnetic susceptibility for the Pella samples.

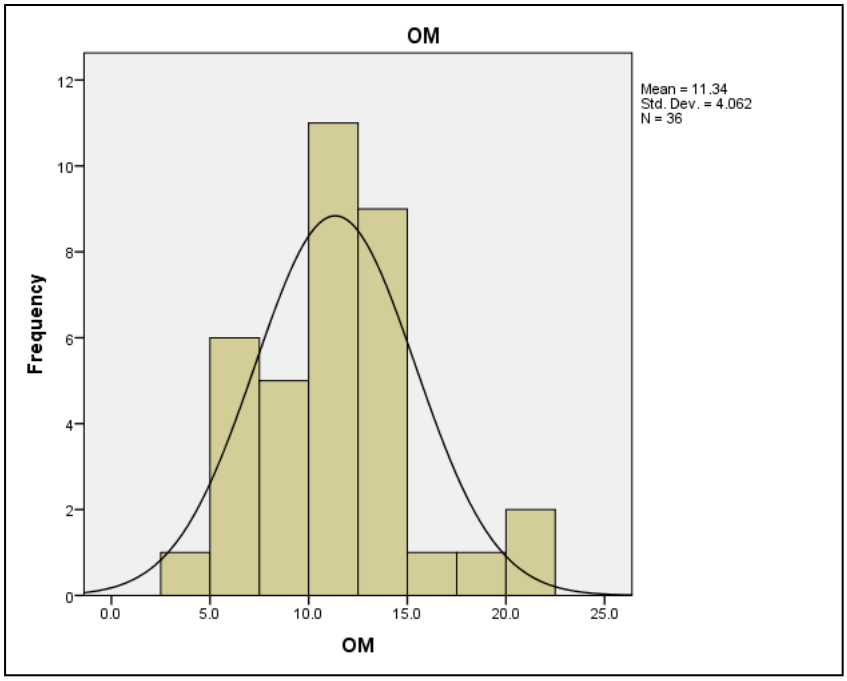

Figure 42. Histogram showing the frequencies of the percentage of organic material for the Pella samples.

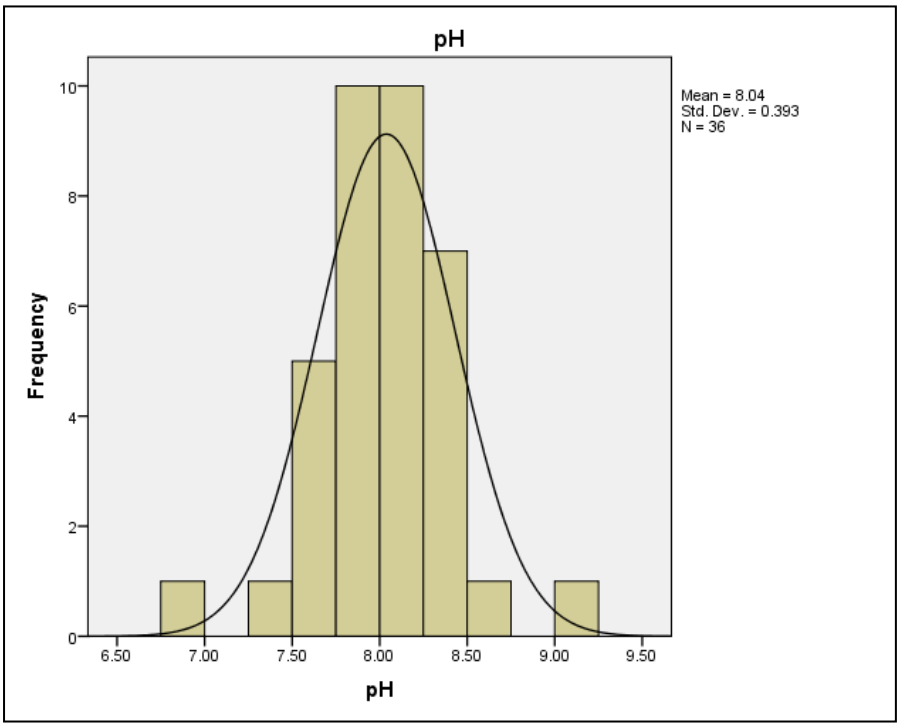

Figure 43. Histogram showing the frequencies of pH levels for the Pella samples.

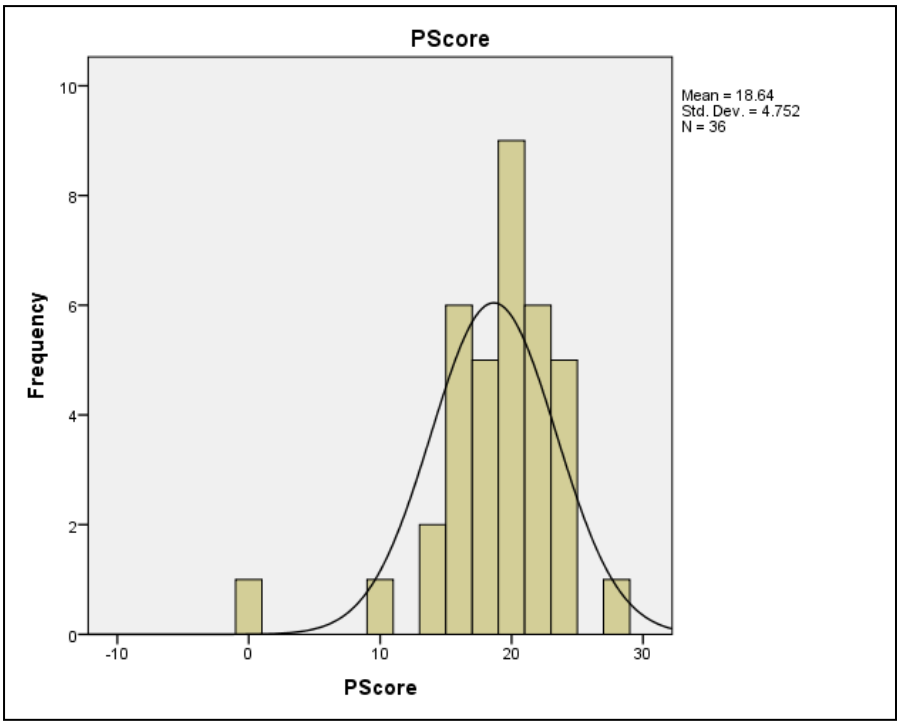

Figure 44. Histogram showing the frequencies of phosphate scores for the Pella samples.

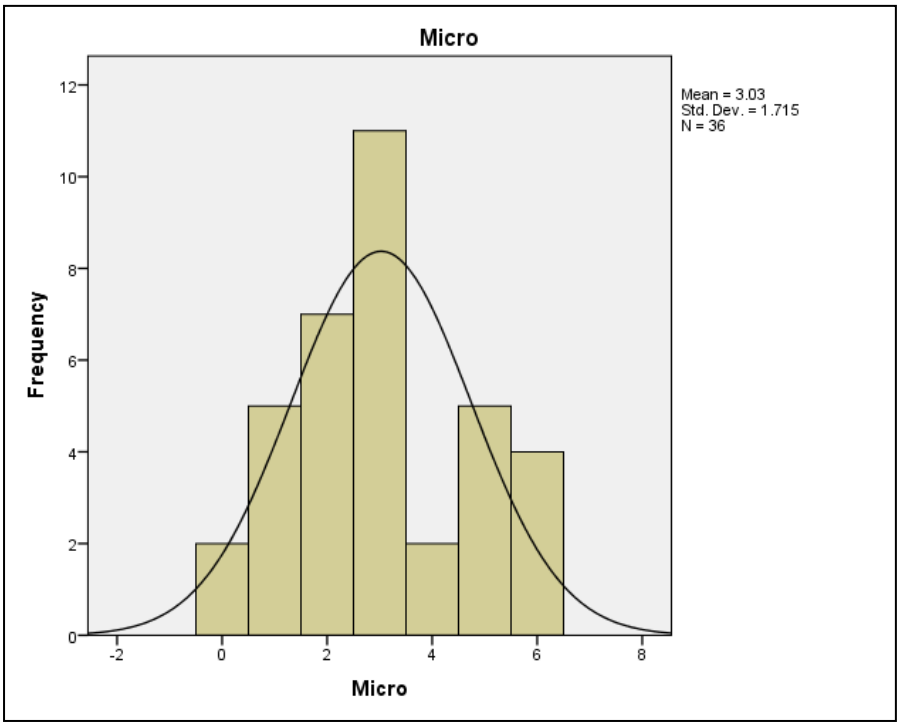

Figure 45. Histogram showing the frequencies of anthropogenic microartefact scores for the Pella samples.

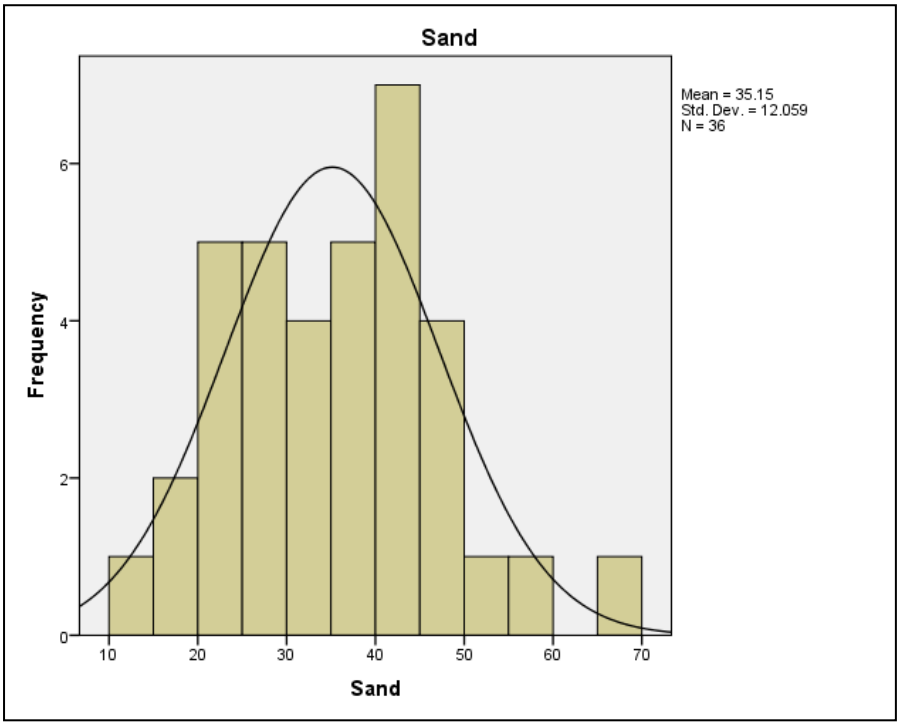

Figure 46. Histogram showing the frequencies of the percentage of sand particles for the Pella samples.

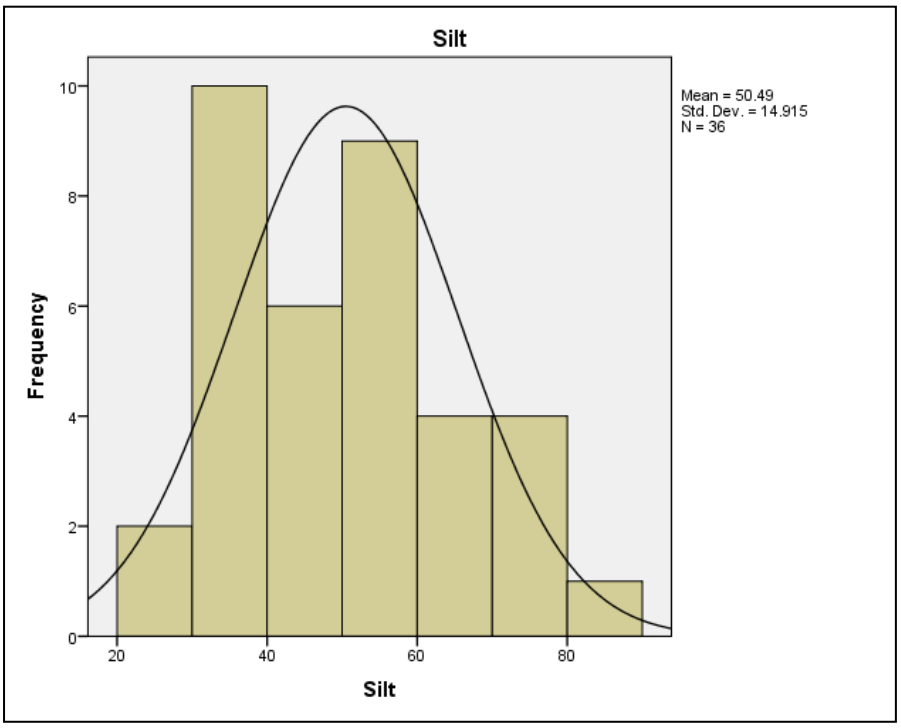

Figure 47. Histogram showing the frequencies of the percentage of silt particles for the Pella samples.

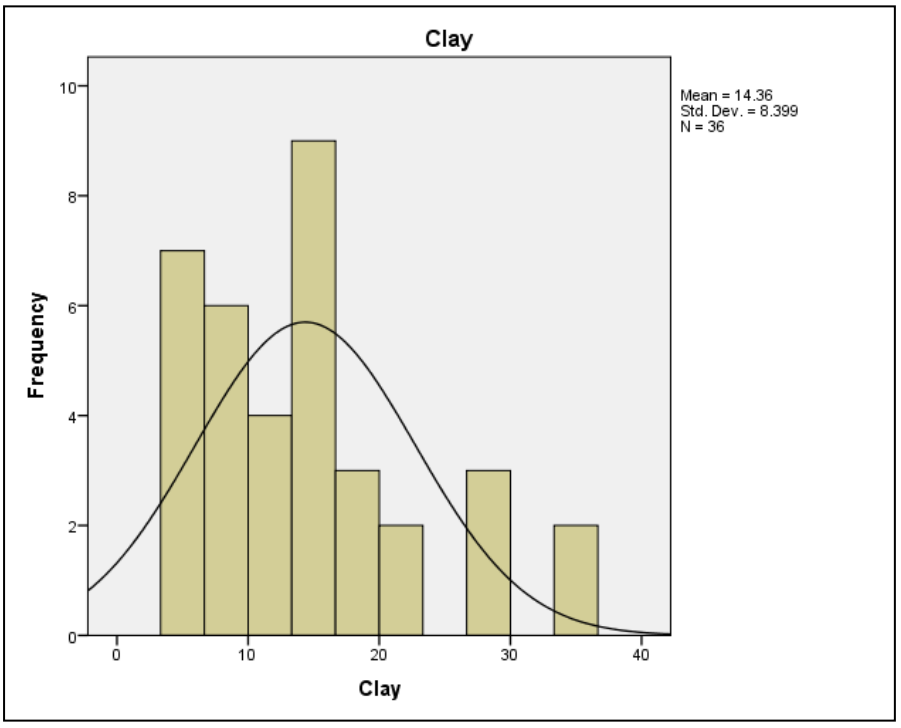

Figure 48. Histogram showing the frequencies of the percentage of clay particles for the Pella samples.

Scatter plots

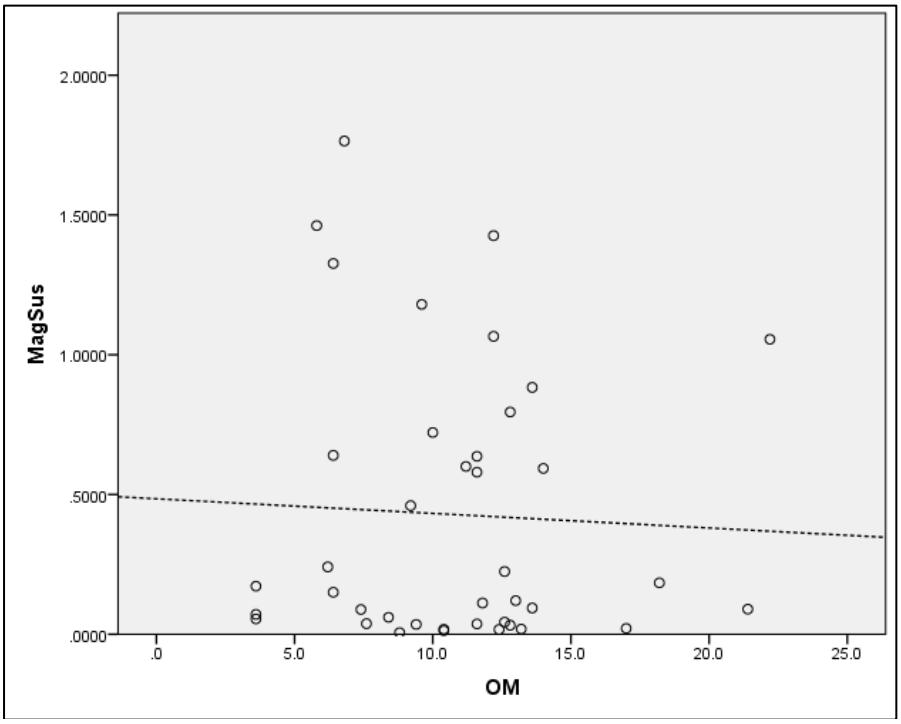

Figure 49. Box-plot showing the correlation between mass-specific magnetic susceptibility and the percentage of organic material for the Pella samples.

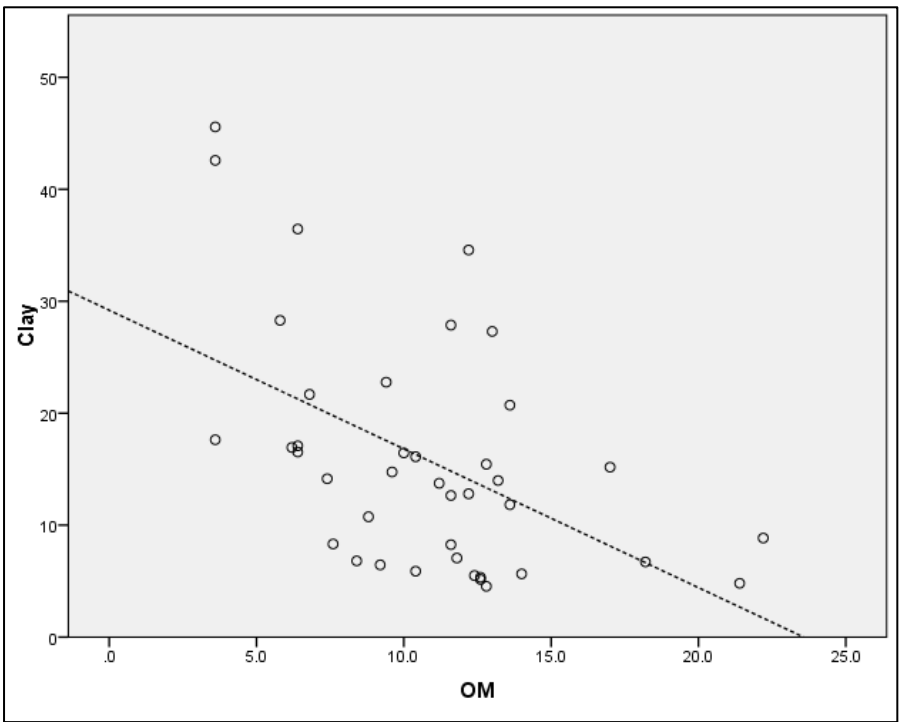

Figure 50. Box-plot showing the correlation between the percentage of clay particles and the percentage of organic material for the Pella samples.

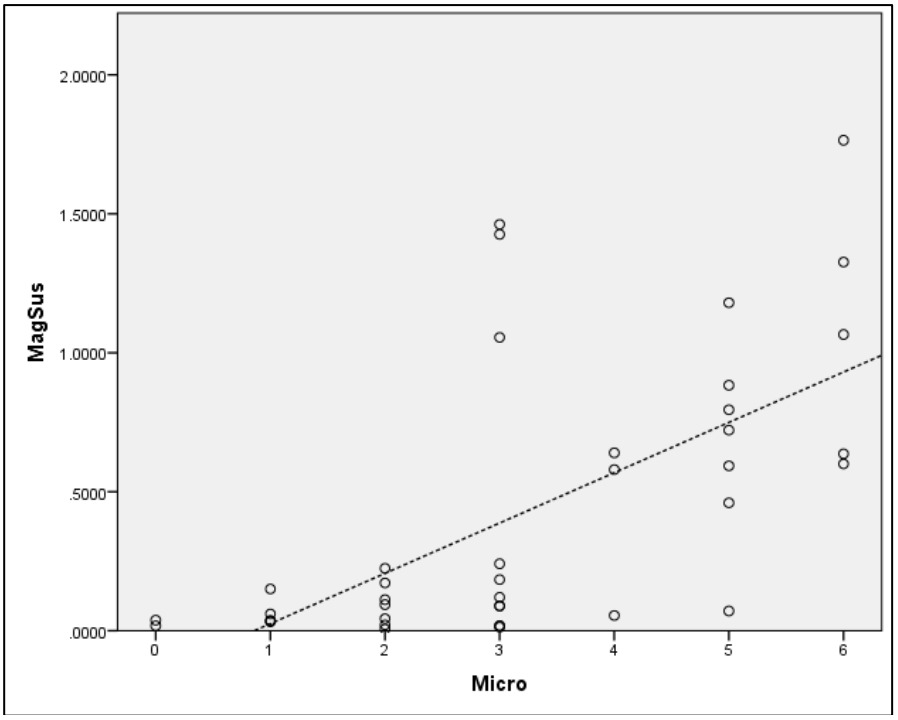

Figure 51. Box-plot showing the correlation between mass-specific magnetic susceptibility and anthropogenic microartefact scores for the Pella samples.

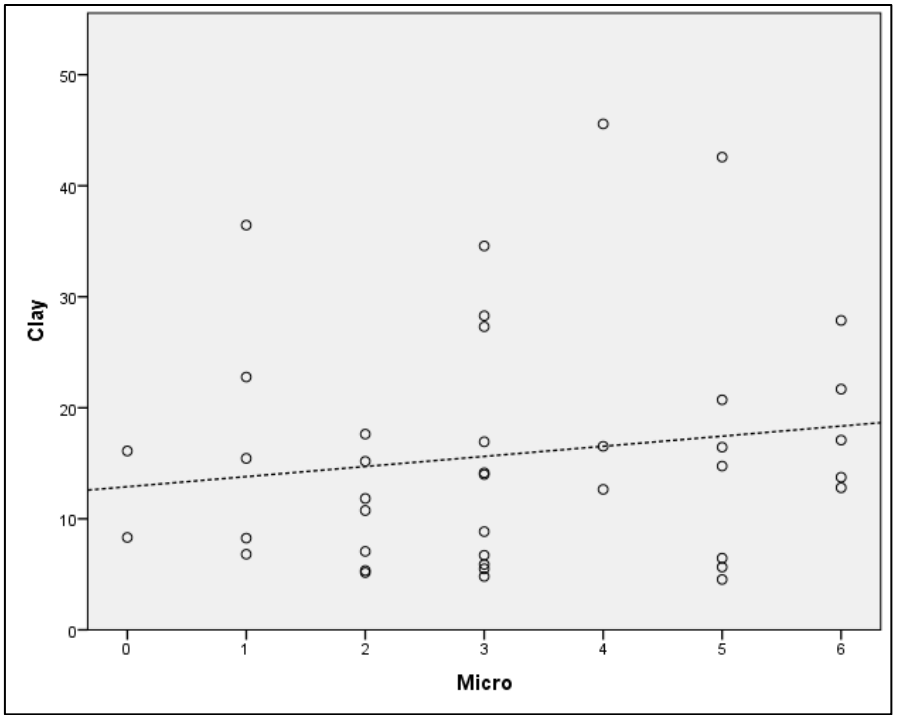

Figure 52. Box-plot showing the correlation between the percentage of clay particles and anthropogenic microartefact scores for the Pella samples.

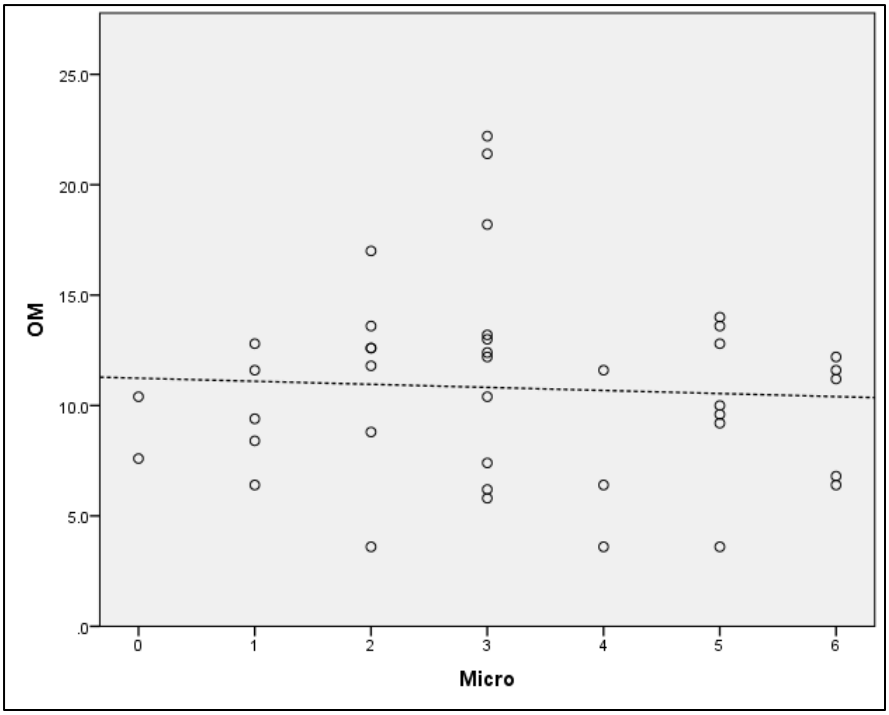

Figure 53. Box-plot showing the correlation between the percentage of organic material and anthropogenic microartefact scores for the Pella samples.

Grain-size by samples

Phi Size Class	Total Weight: 33.07	Weight %	Cum. % Coarser	Grain Size %	
-1	2.41	7.29	7.29		
0	1.57	4.75	12.04		
1	1.78	5.38	17.42		
2	2.03	6.14	23.56		
3	2.76	8.35	31.90		
3.8	20.50	61.99	38.01		
4	3.52	10.64	42.55	41.03	Sand
4.1	19.00	57.45	42.55		
4.3	17.50	52.92	47.08		
4.8	14.50	43.85	56.15		
5.5	11.50	34.77	65.23		
6.3	7.50	22.68	77.32		
6.7	3.50	10.58	89.42		
7.2	2.00	6.05	93.95		
7.7	1.50	4.54	95.46		
8.2	1.50	4.54	95.46	54.43	Silt
8.7	1.50	4.54	95.46		
9.5	1.00	3.02	96.98		
				4.54	Clay

Table 60. Grain-size analysis data for Pella sample PELLA/11/XXVIII/T/A.

Phi Size Class	Total Weight: 33.95	Weight %	Cum. % Coarser	Grain Size %	
-1	0.88	2.59	2.59		
0	0.95	2.80	5.39		
1	1.06	3.12	8.51		
2	1.19	3.51	12.02		
3	1.96	5.77	17.79		
3.8	26.00	76.58	23.42		
4	3.32	9.78	27.57	25.78	Sand
4.1	25.00	73.64	26.36		
4.3	24.00	70.69	29.31		
4.8	22.00	64.80	35.20		
5.5	19.00	55.96	44.04		
6.3	12.00	35.35	64.65		
6.7	3.00	8.84	91.16		
7.2	2.00	5.89	94.11		
7.7	2.00	5.89	94.11		
8.2	2.00	5.89	94.11	68.33	Silt
8.7	2.00	5.89	94.11		
9.5	1.50	4.42	95.58		
				5.89	Clay

Table 61. Grain-size analysis data for Pella sample PELLA/11/XXVIII/T/B.

Phi Size Class	Total Weight: 36.38	Weight %	Cum. % Coarser	Grain Size %	
-1	1.80	4.95	4.95		
0	1.28	3.52	8.47		
1	1.23	3.38	11.85		
2	1.03	2.83	14.68		
3	1.22	3.35	18.03		
3.8	28.00	76.97	23.03		
4	1.98	5.44	23.47	23.64	Sand
4.1	27.50	75.59	24.41		
4.3	26.50	72.84	27.16		
4.8	24.00	65.97	34.03		
5.5	21.00	57.72	42.28		
6.3	16.00	43.98	56.02		
6.7	4.00	11.00	89.00		
7.2	2.00	5.50	94.50		
7.7	2.00	5.50	94.50		
8.2	2.00	5.50	94.50	70.86	Silt
8.7	1.50	4.12	95.88		
9.5	1.50	4.12	95.88		
				5.50	Clay

Table 62. Grain-size analysis data for Pella sample PELLA/11/XXVIII/T/D.

Phi Size Class	Total Weight: 37.20	Weight %	Cum. % Coarser	Grain Size %	
-1	0.70	1.88	1.88		
0	1.09	2.93	4.81		
1	1.37	3.68	8.49		
2	1.10	2.96	11.45		
3	1.38	3.71	15.16		
3.8	30.50	81.99	18.01		
4	2.28	6.13	21.29	20.00	Sand
4.1	29.50	79.30	20.70		
4.3	29.00	77.96	22.04		
4.8	26.50	71.24	28.76		
5.5	23.50	63.17	36.83		
6.3	14.00	37.63	62.37		
6.7	5.00	13.44	86.56		
7.2	4.00	10.75	89.25		
7.7	4.00	10.75	89.25		
8.2	4.00	10.75	89.25	69.25	Silt
8.7	3.50	9.41	90.59		
9.5	3.50	9.41	90.59		
				10.75	Clay

Table 63. Grain-size analysis data for Pella sample PELLA/11/XXVIII/W9/A.

Phi Size Class	Total Weight: 35.73	Weight %	Cum. % Coarser	Grain Size %	
-1	0.42	1.18	1.18		
0	1.22	3.41	4.59		
1	1.35	3.78	8.37		
2	1.21	3.39	11.75		
3	1.99	5.57	17.32		
3.8	25.00	69.97	30.03		
4	4.12	11.53	28.86	30.57	Sand
4.1	24.00	67.17	32.83		
4.3	23.50	65.77	34.23		
4.8	22.00	61.57	38.43		
5.5	18.00	50.38	49.62		
6.3	11.00	30.79	69.21		
6.7	5.50	15.39	84.61		
7.2	5.00	13.99	86.01		
7.7	5.00	13.99	86.01		
8.2	5.00	13.99	86.01	55.43	Silt
8.7	4.50	12.59	87.41		
9.5	4.50	12.59	87.41		
				13.99	Clay

Table 64. Grain-size analysis data for Pella sample PELLA/11/XXVIII/W9/B.

Phi Size Class	Total Weight: 35.41	Weight %	Cum. % Coarser	Grain Size %	
-1	2.33	6.58	6.58		
0	1.90	5.37	11.95		
1	1.89	5.34	17.28		
2	1.73	4.89	22.17		
3	2.37	6.69	28.86		
3.8	21.00	59.31	40.69		
4	3.44	9.71	38.58	40.93	Sand
4.1	20.00	56.48	43.52		
4.3	19.00	53.66	46.34		
4.8	16.50	46.60	53.40		
5.5	13.00	36.71	63.29		
6.3	10.50	29.65	70.35		
6.7	3.50	9.88	90.12		
7.2	2.50	7.06	92.94		
7.7	2.00	5.65	94.35		
8.2	2.00	5.65	94.35	53.42	Silt
8.7	2.00	5.65	94.35		
9.5	1.00	2.82	97.18		
				5.65	Clay

Table 65. Grain-size analysis data for Pella sample PELLA/11/XXVIII/W9/C.

Phi Size Class	Total Weight: 35.94	Weight %	Cum. % Coarser	Grain Size %	
-1	0.49	1.36	1.36		
0	0.81	2.25	3.62		
1	1.36	3.78	7.40		
2	2.58	7.18	14.58		
3	5.70	15.86	30.44		
3.8	19.50	54.26	45.74		
4	7.01	19.50	49.94	48.53	Sand
4.1	18.00	50.08	49.92		
4.3	16.00	44.52	55.48		
4.8	13.00	36.17	63.83		
5.5	10.50	29.22	70.78		
6.3	9.00	25.04	74.96		
6.7	7.00	19.48	80.52		
7.2	5.50	15.30	84.70		
7.7	4.50	12.52	87.48		
8.2	4.00	11.13	88.87	39.64	Silt
8.7	3.50	9.74	90.26		
9.5	3.50	9.74	90.26		
				11.83	Clay

Table 66. Grain-size analysis data for Pella sample PELLA/11/III/W41/A.

Phi Size Class	Total Weight: 33.21	Weight %	Cum. % Coarser	Grain Size %	
-1	1.70	5.12	5.12		
0	1.37	4.13	9.24		
1	1.59	4.79	14.03		
2	1.77	5.33	19.36		
3	2.89	8.70	28.06		
3.8	18.50	55.71	44.29		
4	4.50	13.55	41.61	44.40	Sand
4.1	17.50	52.69	47.31		
4.3	17.00	51.19	48.81		
4.8	16.00	48.18	51.82		
5.5	11.00	33.12	66.88		
6.3	9.00	27.10	72.90		
6.7	8.00	24.09	75.91		
7.2	5.50	16.56	83.44		
7.7	5.00	15.06	84.94		
8.2	3.50	10.54	89.46	42.80	Silt
8.7	3.00	9.03	90.97		
9.5	2.50	7.53	92.47		
				12.80	Clay

Table 67. Grain-size analysis data for Pella sample PELLA/11/III/W41/B.

Phi Size Class	Total Weight: 36.40	Weight %	Cum. % Coarser	Grain Size %	
-1	1.56	4.29	4.29		
0	1.53	4.20	8.49		
1	2.63	7.23	15.71		
2	2.87	7.88	23.60		
3	3.45	9.48	33.08		
3.8	19.00	52.20	47.80		
4	3.98	10.93	44.01	47.45	Sand
4.1	18.00	49.45	50.55		
4.3	17.50	48.08	51.92		
4.8	14.50	39.84	60.16		
5.5	12.50	34.34	65.66		
6.3	10.00	27.47	72.53		
6.7	9.00	24.73	75.27		
7.2	7.50	20.60	79.40		
7.7	6.00	16.48	83.52		
8.2	4.00	10.99	89.01	38.81	Silt
8.7	4.00	10.99	89.01		
9.5	2.50	6.87	93.13		
				13.74	Clay

Table 68. Grain-size analysis data for Pella sample PELLA/11/III/W41/C.

Phi Size Class	Total Weight: 33.89	Weight %	Cum. % Coarser	Grain Size %	
-1	1.98	5.84	5.84		
0	0.97	2.86	8.70		
1	1.47	4.34	13.04		
2	1.89	5.58	18.62		
3	2.78	8.20	26.82		
3.8	19.50	57.54	42.46		
4	4.05	11.95	38.77	42.22	Sand
4.1	18.50	54.59	45.41		
4.3	17.50	51.64	48.36		
4.8	14.50	42.79	57.21		
5.5	12.00	35.41	64.59		
6.3	9.50	28.03	71.97		
6.7	8.00	23.61	76.39		
7.2	6.50	19.18	80.82		
7.7	6.00	17.70	82.30		
8.2	4.00	11.80	88.20	43.03	Silt
8.7	3.50	10.33	89.67		
9.5	0.50	1.48	98.52		
				14.75	Clay

Table 69. Grain-size analysis data for Pella sample PELLA/11/III/W41/D

Phi Size Class	Total Weight: 33.64	Weight %	Cum. % Coarser	Grain Size %	
-1	3.00	8.92	8.92		
0	1.67	4.96	13.88		
1	1.96	5.83	19.71		
2	1.88	5.59	25.30		
3	2.26	6.72	32.02		
3.8	18.50	54.99	45.01		
4	2.78	8.26	40.28	44.42	Sand
4.1	17.50	52.02	47.98		
4.3	17.00	50.54	49.46		
4.8	14.50	43.10	56.90		
5.5	12.00	35.67	64.33		
6.3	10.50	31.21	68.79		
6.7	9.00	26.75	73.25		
7.2	8.00	23.78	76.22		
7.7	6.50	19.32	80.68		
8.2	5.00	14.86	85.14	38.49	Silt
8.7	3.50	10.40	89.60		
9.5	1.00	2.97	97.03		
				17.09	Clay

Table 70. Grain-size analysis data for Pella sample PELLA/11/III/W41/E.

Phi Size Class	Total Weight: 36.47	Weight %	Cum. % Coarser	Grain Size %	
-1	1.08	2.96	2.96		
0	1.24	3.40	6.36		
1	1.96	5.37	11.74		
2	1.95	5.35	17.08		
3	2.88	7.90	24.98		
3.8	23.00	63.07	36.93		
4	3.90	10.69	35.67	37.43	Sand
4.1	22.00	60.32	39.68		
4.3	20.50	56.21	43.79		
4.8	18.00	49.36	50.64		
5.5	13.50	37.02	62.98		
6.3	10.50	28.79	71.21		
6.7	9.50	26.05	73.95		
7.2	7.50	20.56	79.44		
7.7	6.50	17.82	82.18		
8.2	5.50	15.08	84.92	46.12	Silt
8.7	4.00	10.97	89.03		
9.5	3.50	9.60	90.40		
				16.45	Clay

Table 71. Grain-size analysis data for Pella sample PELLA/11/III/W41/F.

Phi Size Class	Total Weight: 34.79	Weight %	Cum. % Coarser	Grain Size %	
-1	1.63	4.69	4.69		
0	0.77	2.21	6.90		
1	1.29	3.71	10.61		
2	2.01	5.78	16.38		
3	2.90	8.34	24.72		
3.8	19.50	56.05	43.95		
4	2.42	6.96	31.68	41.30	Sand
4.1	18.00	51.74	48.26		
4.3	17.00	48.86	51.14		
4.8	15.50	44.55	55.45		
5.5	12.50	35.93	64.07		
6.3	10.00	28.74	71.26		
6.7	9.00	25.87	74.13		
7.2	7.50	21.56	78.44		
7.7	6.50	18.68	81.32		
8.2	5.00	14.37	85.63	42.18	Silt
8.7	4.50	12.93	87.07		
9.5	4.00	11.50	88.50		
				16.53	Clay

Table 72. Grain-size analysis data for Pella sample PELLA/11/III/W41/G.

Phi Size Class	Total Weight: 34.79	Weight %	Cum. % Coarser	Grain Size %	
-1	1.32	3.73	3.73		
0	1.68	4.74	8.47		
1	2.81	7.94	16.41		
2	2.59	7.31	23.72		
3	2.87	8.11	31.83		
3.8	18.50	52.25	47.75		
4	2.92	8.25	40.07	47.08	Sand
4.1	16.50	46.60	53.40		
4.3	15.50	43.77	56.23		
4.8	14.50	40.95	59.05		
5.5	11.50	32.48	67.52		
6.3	9.50	26.83	73.17		
6.7	8.00	22.59	77.41		
7.2	7.50	21.18	78.82		
7.7	6.50	18.36	81.64		
8.2	5.50	15.53	84.47	35.98	Silt
8.7	3.50	9.88	90.12		
9.5	3.00	8.47	91.53		
				16.94	Clay

Table 73. Grain-size analysis data for Pella sample PELLA/11/III/W41/H.

Phi Size Class	Total Weight: 35.34	Weight %	Cum. % Coarser	Grain Size %	
-1	2.12	6.00	6.00		
0	2.17	6.14	12.14		
1	2.34	6.62	18.76		
2	1.69	4.78	23.54		
3	1.59	4.50	28.04		
3.8	17.00	48.10	51.90		
4	1.31	3.71	31.75	46.12	Sand
4.1	16.00	45.27	54.73		
4.3	15.50	43.86	56.14		
4.8	12.50	35.37	64.63		
5.5	10.50	29.71	70.29		
6.3	7.50	21.22	78.78		
6.7	6.50	18.39	81.61		
7.2	6.00	16.98	83.02		
7.7	5.50	15.56	84.44		
8.2	4.50	12.73	87.27	39.73	Silt
8.7	3.00	8.49	91.51		
9.5	2.50	7.07	92.93		
				14.15	Clay

Table 74. Grain-size analysis data for Pella sample PELLA/11/III/W41/I.

Phi Size Class	Total Weight: 34.29	Weight %	Cum. % Coarser	Grain Size %	
-1	1.35	3.94	3.94		
0	1.45	4.23	8.17		
1	1.50	4.37	12.54		
2	1.07	3.12	15.66		
3	1.42	4.14	19.80		
3.8	22.50	65.62	34.38		
4	1.67	4.87	24.67	31.63	Sand
4.1	22.00	64.16	35.84		
4.3	21.50	62.70	37.30		
4.8	20.00	58.33	41.67		
5.5	18.50	53.95	46.05		
6.3	17.00	49.58	50.42		
6.7	16.00	46.66	53.34		
7.2	15.00	43.74	56.26		
7.7	13.50	39.37	60.63		
8.2	11.50	33.54	66.46	31.91	Silt
8.7	9.50	27.70	72.30		
9.5	7.00	20.41	79.59		
				36.45	Clay

Table 75. Grain-size analysis data for Pella sample PELLA/11/XXXIIW/A.

Phi Size Class	Total Weight: 35.58	Weight %	Cum. % Coarser	Grain Size %	
-1	1.75	4.92	4.92		
0	1.09	3.06	7.98		
1	1.14	3.20	11.19		
2	0.98	2.75	13.94		
3	1.42	3.99	17.93		
3.8	23.50	66.05	33.95		
4	1.99	5.59	23.52	31.41	Sand
4.1	22.50	63.24	36.76		
4.3	21.50	60.43	39.57		
4.8	17.50	49.18	50.82		
5.5	12.00	33.73	66.27		
6.3	10.00	28.11	71.89		
6.7	8.50	23.89	76.11		
7.2	8.00	22.48	77.52		
7.7	5.50	15.46	84.54		
8.2	3.50	9.84	90.16	55.94	Silt
8.7	3.00	8.43	91.57		
9.5	2.50	7.03	92.97		
				12.65	Clay

Table 76. Grain-size analysis data for Pella sample PELLA/11/XXXIIW/B.

Phi Size Class	Total Weight: 36.24	Weight %	Cum. % Coarser	Grain Size %	
-1	0.49	1.35	1.35		
0	0.99	2.73	4.08		
1	1.68	4.64	8.72		
2	2.29	6.32	15.04		
3	3.06	8.44	23.48		
3.8	27.50	75.88	24.12		
4	2.01	5.55	29.03	26.67	Sand
4.1	26.50	73.12	26.88		
4.3	26.00	71.74	28.26		
4.8	23.50	64.85	35.15		
5.5	20.50	56.57	43.43		
6.3	9.00	24.83	75.17		
6.7	6.00	16.56	83.44		
7.2	5.50	15.18	84.82		
7.7	5.50	15.18	84.82		
8.2	5.50	15.18	84.82	58.15	Silt
8.7	5.00	13.80	86.20		
9.5	5.00	13.80	86.20		
				15.18	Clay

Table 77. Grain-size analysis data for Pella sample PELLA/11/XXVIII/T/C.

Phi Size Class	Total Weight: 39.56	Weight %	Cum. % Coarser	Grain Size %	
-1	0.41	1.04	1.04		
0	1.45	3.67	4.70		
1	5.75	14.53	19.24		
2	6.65	16.81	36.05		
3	5.40	13.65	49.70		
3.8	12.50	31.60	68.40		
4	2.89	7.31	57.00	65.44	Sand
4.1	11.50	29.07	70.93		
4.3	11.00	27.81	72.19		
4.8	9.50	24.01	75.99		
5.5	8.00	20.22	79.78		
6.3	5.00	12.64	87.36		
6.7	4.50	11.38	88.62		
7.2	3.50	8.85	91.15		
7.7	3.50	8.85	91.15		
8.2	3.50	8.85	91.15	25.71	Silt
8.7	3.50	8.85	91.15		
9.5	3.50	8.85	91.15		
				8.85	Clay

Table 78. Grain-size analysis data for Pella sample PELLA/11/XXVIII/TW/A.

Phi Size Class	Total Weight: 37.19	Weight %	Cum. % Coarser	Grain Size %	
-1	0.81	2.18	2.18		
0	1.67	4.49	6.67		
1	4.16	11.19	17.85		
2	3.89	10.46	28.31		
3	3.00	8.07	36.38		
3.8	14.00	37.64	62.36		
4	1.77	4.76	41.14	56.63	Sand
4.1	12.50	33.61	66.39		
4.3	12.00	32.27	67.73		
4.8	10.50	28.23	71.77		
5.5	8.50	22.86	77.14		
6.3	6.50	17.48	82.52		
6.7	3.50	9.41	90.59		
7.2	2.50	6.72	93.28		
7.7	2.50	6.72	93.28		
8.2	2.50	6.72	93.28	36.65	Silt
8.7	2.50	6.72	93.28		
9.5	2.50	6.72	93.28		
				6.72	Clay

Table 79. Grain-size analysis data for Pella sample PELLA/11/XXVIII/TW/B.

Phi Size Class	Total Weight: 36.36	Weight %	Cum. % Coarser	Grain Size %	
-1	0.91	2.50	2.50		
0	1.07	2.94	5.45		
1	1.60	4.40	9.85		
2	1.30	3.58	13.42		
3	1.38	3.80	17.22		
3.8	20.00	55.01	44.99		
4	0.94	2.59	19.80	37.51	Sand
4.1	19.00	52.26	47.74		
4.3	18.50	50.88	49.12		
4.8	17.50	48.13	51.87		
5.5	15.50	42.63	57.37		
6.3	12.50	34.38	65.62		
6.7	11.00	30.25	69.75		
7.2	4.50	12.38	87.62		
7.7	2.00	5.50	94.50		
8.2	1.50	4.13	95.87	57.67	Silt
8.7	1.50	4.13	95.87		
9.5	1.50	4.13	95.87		
				4.81	Clay

Table 80. Grain-size analysis data for Pella sample PELLA/11/XXVIII/TW/C.

Phi Size Class	Total Weight: 31.84	Weight %	Cum. % Coarser	Grain Size %	
-1	1.43	4.49	4.49		
0	1.85	5.81	10.30		
1	2.25	7.07	17.37		
2	2.14	6.72	24.09		
3	2.36	7.41	31.50		
3.8	18.50	58.10	41.90		
4	1.30	4.08	35.58	40.32	Sand
4.1	18.00	56.53	43.47		
4.3	17.50	54.96	45.04		
4.8	15.00	47.11	52.89		
5.5	13.50	42.40	57.60		
6.3	11.50	36.12	63.88		
6.7	10.50	32.98	67.02		
7.2	9.00	28.27	71.73		
7.7	8.00	25.13	74.87		
8.2	6.50	20.41	79.59	36.91	Silt
8.7	5.00	15.70	84.30		
9.5	3.00	9.42	90.58		
				22.77	Clay

Table 81. Grain-size analysis data for Pella sample PELLA/11/III/S/A.

Phi Size Class	Total Weight: 25.90	Weight %	Cum. % Coarser	Grain Size %	
-1	0.75	2.90	2.90		
0	2.03	7.84	10.73		
1	2.35	9.07	19.81		
2	1.38	5.33	25.14		
3	1.67	6.45	31.58		
3.8	15.50	59.85	40.15		
4	1.39	5.37	36.95	39.73	Sand
4.1	15.00	57.92	42.08		
4.3	14.50	55.98	44.02		
4.8	13.50	52.12	47.88		
5.5	11.50	44.40	55.60		
6.3	7.50	28.96	71.04		
6.7	5.50	21.24	78.76		
7.2	4.50	17.37	82.63		
7.7	4.00	15.44	84.56		
8.2	4.00	15.44	84.56	44.83	Silt
8.7	3.50	13.51	86.49		
9.5	3.50	13.51	86.49		
				15.44	Clay

Table 82. Grain-size analysis data for Pella sample PELLA/11/III/S/B.

Phi Size Class	Total Weight: 24.83	Weight %	Cum. % Coarser	Grain Size %	
-1	2.60	10.47	10.47		
0	0.59	2.38	12.85		
1	1.58	6.36	19.21		
2	1.91	7.69	26.90		
3	2.15	8.66	35.56		
3.8	18.00	72.49	27.51		
4	1.44	5.80	41.36	32.80	Sand
4.1	17.50	70.48	29.52		
4.3	17.00	68.47	31.53		
4.8	15.50	62.42	37.58		
5.5	13.00	52.36	47.64		
6.3	8.00	32.22	67.78		
6.7	4.50	18.12	81.88		
7.2	4.00	16.11	83.89		
7.7	4.00	16.11	83.89		
8.2	4.00	16.11	83.89	51.09	Silt
8.7	3.00	12.08	87.92		
9.5	3.00	12.08	87.92		
				16.11	Clay

Table 83. Grain-size analysis data for Pella sample PELLA/11/III/S/C.

Phi Size Class	Total Weight: 20.63	Weight %	Cum. % Coarser	Grain Size %	
-1	0.61	2.96	2.96		
0	0.87	4.22	7.17		
1	1.28	6.20	13.38		
2	1.35	6.54	19.92		
3	1.81	8.77	28.70		
3.8	13.00	63.02	36.98		
4	1.39	6.74	35.43	37.28	Sand
4.1	12.50	60.59	39.41		
4.3	12.00	58.17	41.83		
4.8	10.50	50.90	49.10		
5.5	9.50	46.05	53.95		
6.3	8.00	38.78	61.22		
6.7	7.00	33.93	66.07		
7.2	6.00	29.08	70.92		
7.7	6.00	29.08	70.92		
8.2	5.50	26.66	73.34	34.85	Silt
8.7	4.00	19.39	80.61		
9.5	4.00	19.39	80.61		
				27.87	Clay

Table 84. Grain-size analysis data for Pella sample PELLA/11/III/S/D.

Phi Size Class	Total Weight: 29.30	Weight %	Cum. % Coarser	Grain Size %	
-1	0.40	1.37	1.37		
0	0.68	2.32	3.69		
1	0.97	3.31	7.00		
2	1.02	3.48	10.48		
3	1.43	4.88	15.36		
3.8	22.50	76.79	23.21		
4	1.12	3.82	19.18	22.43	Sand
4.1	22.00	75.09	24.91		
4.3	21.50	73.38	26.62		
4.8	19.50	66.55	33.45		
5.5	17.00	58.02	41.98		
6.3	14.50	49.49	50.51		
6.7	12.50	42.66	57.34		
7.2	11.00	37.54	62.46		
7.7	9.50	32.42	67.58		
8.2	6.50	22.18	77.82	50.26	Silt
8.7	5.00	17.06	82.94		
9.5	5.00	17.06	82.94		
				27.30	Clay

Table 85. Grain-size analysis data for Pella sample PELLA/11/III/S/E.

Phi Size Class	Total Weight: 27.75	Weight %	Cum. % Coarser	Grain Size %	
-1	1.37	4.94	4.94		
0	1.13	4.07	9.01		
1	1.27	4.58	13.59		
2	1.41	5.08	18.67		
3	2.61	9.41	28.07		
3.8	22.50	81.08	18.92		
4	2.16	7.78	35.86	25.17	Sand
4.1	22.00	79.28	20.72		
4.3	21.00	75.68	24.32		
4.8	13.00	46.85	53.15		
5.5	12.00	43.24	56.76		
6.3	8.00	28.83	71.17		
6.7	7.50	27.03	72.97		
7.2	6.50	23.42	76.58		
7.7	6.00	21.62	78.38		
8.2	5.50	19.82	80.18	54.11	Silt
8.7	4.50	16.22	83.78		
9.5	4.50	16.22	83.78		
				20.72	Clay

Table 86. Grain-size analysis data for Pella sample PELLA/11/III/S/F.

Phi Size Class	Total Weight: 17.35	Weight %	Cum. % Coarser	Grain Size %	
-1	0.57	3.29	3.29		
0	0.53	3.05	6.34		
1	0.68	3.92	10.26		
2	0.74	4.27	14.52		
3	0.90	5.19	19.71		
3.8	10.50	60.52	39.48		
4	0.79	4.55	24.27	35.37	Sand
4.1	10.00	57.64	42.36		
4.3	10.00	57.64	42.36		
4.8	9.50	54.76	45.24		
5.5	8.50	48.99	51.01		
6.3	8.00	46.11	53.89		
6.7	7.50	43.23	56.77		
7.2	6.50	37.46	62.54		
7.7	6.50	37.46	62.54		
8.2	5.50	31.70	68.30	30.05	Silt
8.7	4.50	25.94	74.06		
9.5	4.50	25.94	74.06		
				34.58	Clay

Table 87. Grain-size analysis data for Pella sample PELLA/11/III/S/G.

Phi Size Class	Total Weight: 36.40	Weight %	Cum. % Coarser	Grain Size %	
-1	0.22	0.60	0.60		
0	0.16	0.44	1.04		
1	0.37	1.02	2.06		
2	0.59	1.62	3.68		
3	1.31	3.60	7.28		
3.8	34.00	93.41	6.59		
4	1.77	4.86	12.14	9.36	Sand
4.1	33.00	90.66	9.34		
4.3	32.50	89.29	10.71		
4.8	30.00	82.42	17.58		
5.5	28.00	76.92	23.08		
6.3	23.50	64.56	35.44		
6.7	21.00	57.69	42.31		
7.2	19.00	52.20	47.80		
7.7	16.00	43.96	56.04		
8.2	15.00	41.21	58.79	48.06	Silt
8.7	13.00	35.71	64.29		
9.5	10.00	27.47	72.53		
				42.58	Clay

Table 88. Grain-size analysis data for Pella sample PELLA/DT/70432.

Phi Size Class	Total Weight: 38.40	Weight %	Cum. % Coarser	Grain Size %	
-1	0.06	0.16	0.16		
0	0.14	0.36	0.52		
1	0.22	0.57	1.09		
2	0.32	0.83	1.93		
3	1.05	2.73	4.66		
3.8	36.50	95.05	4.95		
4	1.91	4.97	9.64	6.51	Sand
4.1	36.50	95.05	4.95		
4.3	36.00	93.75	6.25		
4.8	34.00	88.54	11.46		
5.5	31.00	80.73	19.27		
6.3	25.50	66.41	33.59		
6.7	23.00	59.90	40.10		
7.2	20.50	53.39	46.61		
7.7	18.50	48.18	51.82		
8.2	16.50	42.97	57.03	47.92	Silt
8.7	14.00	36.46	63.54		
9.5	11.50	29.95	70.05		
				45.57	Clay

Table 89. Grain-size analysis data for Pella sample PELLA/DT/70460.

Phi Size Class	Total Weight: 38.06	Weight %	Cum. % Coarser	Grain Size %	
-1	2.18	5.73	5.73		
0	1.91	5.02	10.75		
1	2.69	7.07	17.81		
2	2.21	5.81	23.62		
3	2.28	5.99	29.61		
3.8	19.50	51.23	48.77		
4	1.58	4.15	33.76	44.64	Sand
4.1	18.50	48.61	51.39		
4.3	18.00	47.29	52.71		
4.8	16.50	43.35	56.65		
5.5	13.50	35.47	64.53		
6.3	12.50	32.84	67.16		
6.7	11.50	30.22	69.78		
7.2	10.00	26.27	73.73		
7.7	9.00	23.65	76.35		
8.2	7.50	19.71	80.29	33.68	Silt
8.7	6.50	17.08	82.92		
9.5	5.50	14.45	85.55		
				21.68	Clay

Table 90. Grain-size analysis data for Pella sample PELLA/DT/90628.

Phi Size Class	Total Weight: 38.78	Weight %	Cum. % Coarser	Grain Size %	
-1	1.65	4.25	4.25		
0	1.44	3.71	7.97		
1	2.31	5.96	13.92		
2	1.89	4.87	18.80		
3	1.93	4.98	23.78		
3.8	26.50	68.33	31.67		
4	1.37	3.53	27.31	30.64	Sand
4.1	26.00	67.04	32.96		
4.3	25.00	64.47	35.53		
4.8	22.50	58.02	41.98		
5.5	20.50	52.86	47.14		
6.3	15.50	39.97	60.03		
6.7	7.00	18.05	81.95		
7.2	3.50	9.03	90.97		
7.7	2.50	6.45	93.55		
8.2	2.50	6.45	93.55	62.91	Silt
8.7	2.50	6.45	93.55		
9.5	2.50	6.45	93.55		
				6.45	Clay

Table 91. Grain-size analysis data for Pella sample PELLA/DT/90647.

Phi Size Class	Total Weight: 35.41	Weight %	Cum. % Coarser	Grain Size %	
-1	0.97	2.74	2.74		
0	1.30	3.67	6.41		
1	1.68	4.74	11.16		
2	0.92	2.60	13.75		
3	0.82	2.32	16.07		
3.8	27.50	77.66	22.34		
4	0.59	1.67	17.74	22.22	Sand
4.1	26.00	73.43	26.57		
4.3	25.50	72.01	27.99		
4.8	22.00	62.13	37.87		
5.5	21.50	60.72	39.28		
6.3	7.50	21.18	78.82		
6.7	3.50	9.88	90.12		
7.2	2.50	7.06	92.94		
7.7	2.50	7.06	92.94		
8.2	2.50	7.06	92.94	70.72	Silt
8.7	2.50	7.06	92.94		
9.5	2.50	7.06	92.94		
				7.06	Clay

Table 92. Grain-size analysis data for Pella sample PELLA/DT/50393.

Phi Size Class	Total Weight: 35.45	Weight %	Cum. % Coarser	Grain Size %	
-1	0.43	1.21	1.21		
0	3.10	8.74	9.96		
1	7.72	21.78	31.73		
2	4.46	12.58	44.32		
3	3.06	8.63	52.95		
3.8	17.00	47.95	52.05		
4	1.49	4.20	57.15	54.22	Sand
4.1	16.50	46.54	53.46		
4.3	16.00	45.13	54.87		
4.8	14.50	40.90	59.10		
5.5	13.00	36.67	63.33		
6.3	10.00	28.21	71.79		
6.7	9.50	26.80	73.20		
7.2	8.00	22.57	77.43		
7.7	6.50	18.34	81.66		
8.2	6.00	16.93	83.07	28.15	Silt
8.7	4.50	12.69	87.31		
9.5	3.50	9.87	90.13		
				17.63	Clay

Table 93. Grain-size analysis data for Pella sample PELLA/DT/50561.

Phi Size Class	Total Weight: 38.74	Weight %	Cum. % Coarser	Grain Size %	
-1	0.73	1.88	1.88		
0	0.91	2.35	4.23		
1	1.04	2.68	6.92		
2	0.69	1.78	8.70		
3	0.73	1.88	10.58		
3.8	30.00	77.44	22.56		
4	0.61	1.57	12.16	19.95	Sand
4.1	29.00	74.86	25.14		
4.3	28.00	72.28	27.72		
4.8	24.00	61.95	38.05		
5.5	19.00	49.04	50.96		
6.3	13.50	34.85	65.15		
6.7	5.00	12.91	87.09		
7.2	3.50	9.03	90.97		
7.7	2.00	5.16	94.84		
8.2	2.00	5.16	94.84	74.88	Silt
8.7	2.00	5.16	94.84		
9.5	2.00	5.16	94.84		
				5.16	Clay

Table 94. Grain-size analysis data for Pella sample PELLA/DT/50602.

Phi Size Class	Total Weight: 37.45	Weight %	Cum. % Coarser	Grain Size %	
-1	0.31	0.83	0.83		
0	0.50	1.34	2.16		
1	0.88	2.35	4.51		
2	0.96	2.56	7.08		
3	1.27	3.39	10.47		
3.8	33.00	88.12	11.88		
4	1.08	2.88	13.35	12.82	Sand
4.1	32.50	86.78	13.22		
4.3	32.00	85.45	14.55		
4.8	28.00	74.77	25.23		
5.5	23.50	62.75	37.25		
6.3	12.50	33.38	66.62		
6.7	4.00	10.68	89.32		
7.2	3.50	9.35	90.65		
7.7	2.00	5.34	94.66		
8.2	2.00	5.34	94.66	81.84	Silt
8.7	2.00	5.34	94.66		
9.5	2.00	5.34	94.66		
				5.34	Clay

Table 95. Grain-size analysis data for Pella sample PELLA/DT/50608.

Phi Size Class	Total Weight: 33.31	Weight %	Cum. % Coarser	Grain Size %	
-1	0.48	1.44	1.44		
0	0.84	2.52	3.96		
1	1.15	3.45	7.42		
2	0.66	1.98	9.40		
3	0.53	1.59	10.99		
3.8	27.00	81.06	18.94		
4	0.42	1.26	12.25	17.21	Sand
4.1	26.50	79.56	20.44		
4.3	26.00	78.05	21.95		
4.8	22.50	67.55	32.45		
5.5	18.00	54.04	45.96		
6.3	14.00	42.03	57.97		
6.7	11.50	34.52	65.48		
7.2	7.50	22.52	77.48		
7.7	3.00	9.01	90.99		
8.2	2.50	7.51	92.49	74.53	Silt
8.7	2.00	6.00	94.00		
9.5	2.00	6.00	94.00		
				8.26	Clay

Table 96. Grain-size analysis data for Pella sample PELLA/DT/70185.

Phi Size Class	Total Weight: 39.76	Weight %	Cum. % Coarser	Grain Size %	
-1	1.52	3.82	3.82		
0	0.64	1.61	5.43		
1	0.58	1.46	6.89		
2	0.46	1.16	8.05		
3	0.53	1.33	9.38		
3.8	29.00	72.94	27.06		
4	0.53	1.33	10.71	22.45	Sand
4.1	28.00	70.42	29.58		
4.3	27.00	67.91	32.09		
4.8	24.00	60.36	39.64		
5.5	21.50	54.07	45.93		
6.3	18.50	46.53	53.47		
6.7	16.50	41.50	58.50		
7.2	14.50	36.47	63.53		
7.7	12.00	30.18	69.82		
8.2	10.50	26.41	73.59	49.25	Silt
8.7	9.00	22.64	77.36		
9.5	6.50	16.35	83.65		
				28.29	Clay

Table 97. Grain-size analysis data for Pella sample PELLA/DT/71165.

Phi Size Class	Total Weight: 36.73	Weight %	Cum. % Coarser	Grain Size %	
-1	1.01	2.75	2.75		
0	1.28	3.48	6.23		
1	1.52	4.14	10.37		
2	0.95	2.59	12.96		
3	0.83	2.26	15.22		
3.8	26.00	70.79	29.21		
4	0.67	1.82	17.04	26.52	Sand
4.1	24.50	66.70	33.30		
4.3	23.50	63.98	36.02		
4.8	21.00	57.17	42.83		
5.5	18.00	49.01	50.99		
6.3	14.00	38.12	61.88		
6.7	12.50	34.03	65.97		
7.2	12.00	32.67	67.33		
7.7	2.50	6.81	93.19		
8.2	2.50	6.81	93.19	66.68	Silt
8.7	2.00	5.45	94.55		
9.5	2.00	5.45	94.55		
				6.81	Clay

Table 98. Grain-size analysis data for Pella sample PELLA/DT/71282.

Phi Size Class	Total Weight: 39.08	Weight %	Cum. % Coarser	Grain Size %	
-1	0.78	2.00	2.00		
0	0.99	2.53	4.53		
1	0.92	2.35	6.88		
2	0.49	1.25	8.14		
3	0.43	1.10	9.24		
3.8	26.00	66.53	33.47		
4	0.37	0.95	10.18	26.56	Sand
4.1	25.00	63.97	36.03		
4.3	24.00	61.41	38.59		
4.8	21.00	53.74	46.26		
5.5	17.50	44.78	55.22		
6.3	14.50	37.10	62.90		
6.7	12.50	31.99	68.01		
7.2	9.00	23.03	76.97		
7.7	4.00	10.24	89.76		
8.2	2.50	6.40	93.60	65.12	Silt
8.7	1.50	3.84	96.16		
9.5	1.50	3.84	96.16		
				8.32	Clay

Table 99. Grain-size analysis data for Pella sample PELLA/DT/71283.

1.2 MAGNETIC SUSCEPTIBILITY

Dan

Table 100. Magnetic susceptibility data for Dan samples. W_{DRY} = dry weight; K_{LF} = volume magnetic susceptibility on low frequency; K_{HF} = volume magnetic susceptibility on high frequency; X_{LF} = mass-specific magnetic susceptibility for low frequency; X_{HF} = mass-specific magnetic susceptibility for high frequency; $X_{FD\%}$ = percentage of frequency-dependent magnetic susceptibility; X_{FD} = mass specific dual frequency dependent susceptibility.

Sample	W_{DRY} (g)	K_{LF} (10^{-5} SI)	K_{HF} (10^{-5} SI)	X_{LF} ($10^{-6} m^3 kg^{-1}$)	X_{HF} (10^{-6} $m^3 kg^{-1}$)	$X_{FD\%}$	X_{FD} ($10^{-6} m^3 kg^{-1}$)
DAN/11/K/G/A	10.25	527.10	484.30	5.142439024	4.724878049	8.119901	0.004073766
DAN/11/K/G/B	10.17	552.80	505.50	5.435594887	4.970501475	8.55644	0.00457319
DAN/11/K/G/C	10.00	217.30	198.20	2.173	1.982	8.789692	0.00191
DAN/11/K/G/D	10.08	318.90	288.10	3.163690476	2.858134921	9.6582	0.003031305
DAN/11/K/G/E	9.99	609.50	557.00	6.101101101	5.575575576	8.613618	0.005260516
DAN/11/K/G/F	10.14	523.80	474.40	5.165680473	4.678500986	9.431081	0.004804531
DAN/11/K/G/G	10.03	553.10	495.90	5.51445663	4.944167498	10.34171	0.005685834
DAN/11/K/G/H	10.07	210.20	192.30	2.087388282	1.909632572	8.515699	0.001765201
DAN/11/K/W/I	10.12	641.50	587.10	6.338932806	5.801383399	8.480125	0.005311753
DAN/11/K/W/J	10.12	436.00	391.00	4.308300395	3.863636364	10.3211	0.004393913
DAN/11/K/G/K	10.06	613.60	561.50	6.099403579	5.581510934	8.490874	0.005148038
DAN/11/K/R/A	10.11	21.80	20.00	0.215628091	0.197823937	8.256881	0.000176104
DAN/11/K/R/B	10.08	246.90	228.80	2.449404762	2.26984127	7.330903	0.001781384
DAN/11/K/R/C	10.07	397.70	366.80	3.949354518	3.642502483	7.769676	0.00304719
DAN/11/T3/W/A	10.05	496.30	461.30	4.938308458	4.590049751	7.052186	0.003465261
DAN/11/T3/W/B	10.00	321.00	298.50	3.21	2.985	7.009346	0.00225

Megiddo

Table 101. Magnetic susceptibility data for Megiddo samples. W_{DRY} = dry weight; K_{LF} = volume magnetic susceptibility on low frequency; K_{HF} = volume magnetic susceptibility on high frequency; X_{LF} = mass-specific magnetic susceptibility for low frequency; X_{HF} = mass-specific magnetic susceptibility for high frequency; $X_{FD\%}$ = percentage of frequency-dependent magnetic susceptibility; X_{FD} = mass specific dual frequency dependent susceptibility.

Sample	W_{DRY} (g)	K_{LF} (10^{-5} SI)	K_{HF} (10^{-5} SI)	X_{LF} ($10^{-6} m^3 kg^{-1}$)	X_{HF} (10^{-6} $m^3 kg^{-1}$)	$X_{FD\%}$	X_{FD} ($10^{-6} m^3 kg^{-1}$)
MEG/10/K/1A	10.11	9.20	7.00	0.090999011	0.069238378	23.91304	0.000215239
MEG/10/K/1B	10.09	5.60	5.10	0.055500496	0.050545094	8.928571	4.9112E-05
MEG/10/K/2A	10.04	2.90	2.60	0.028884462	0.025896414	10.34483	2.97614E-05
MEG/10/K/2B	10.08	5.20	5.00	0.051587302	0.049603175	3.846154	1.96838E-05
MEG/10/K/2C	10.09	17.80	17.10	0.176412289	0.169474727	3.932584	6.87568E-05
MEG/10/K/2D	10.06	60.20	55.30	0.598409543	0.549701789	8.139535	0.000484172
MEG/10/K/3A	10.01	46.10	42.80	0.460539461	0.427572428	7.158351	0.000329341
MEG/10/K/3B	10.25	6.90	6.60	0.067317073	0.064390244	4.347826	2.85544E-05
MEG/10/K/3C	10.17	24.50	22.80	0.240904621	0.224188791	6.938776	0.000164364
MEG/10/K/3D	10.08	3.60	3.40	0.035714286	0.033730159	5.555556	1.96838E-05
MEG/10/K/3E	10.05	86.00	80.00	0.855721393	0.7960199	6.976744	0.000594045
MEG/10/K/3F	10.08	27.80	26.10	0.275793651	0.258928571	6.115108	0.000167312
MEG/10/K/3G	10.19	31.60	29.50	0.310107949	0.289499509	6.64557	0.000202242
MEG/10/K/4A	10.07	13.00	12.40	0.129096326	0.123138034	4.615385	5.91687E-05
MEG/10/K/4B	10.26	4.30	4.20	0.041910331	0.040935673	2.325581	9.4996E-06
MEG/10/K/4C	10.13	17.20	15.80	0.169792695	0.155972359	8.139535	0.00013643
MEG/10/K/4D	10.42	4.00	4.00	0.038387716	0.038387716	0	0
MEG/10/K/4E	10.34	28.10	27.20	0.271760155	0.263056093	3.202847	8.41785E-05
MEG/10/K/SA	10.02	123.50	113.60	1.23253493	1.133732535	8.016194	0.000986052
MEG/10/K/SB	10.38	20.00	18.90	0.192678227	0.182080925	5.5	0.000102093
MEG/10/K/SC	10.12	14.20	13.80	0.140316206	0.136363636	2.816901	3.9057E-05
MEG/10/K/SD	10.02	6.40	6.00	0.063872255	0.05988024	6.25	3.98405E-05
MEG/10/K/SE	10.33	95.70	88.90	0.92642788	0.860600194	7.105538	0.000637248
MEG/10/K/SF	10.44	5.60	5.30	0.053639847	0.050766284	5.357143	2.75246E-05

Table 101 (cont.)

Sample	W_{DRY} (g)	K_{LF} (10^{-5} SI)	K_{HF} (10^{-5} SI)	X_{LF} ($10^{-6}m^3kg^{-1}$)	X_{HF} (10^{-6} m^3kg^{-1})	$X_{FD\%}$	X_{FD} ($10^{-6}m^3kg^{-1}$)
MEG/10/K/SG	10.02	101.70	94.20	1.01497006	0.94011976	7.374631	0.000747009
MEG/10/AA/GA	10.09	3.40	3.20	0.033696729	0.031714569	5.882353	1.96448E-05
MEG/10/AA/GB	10.01	109.50	101.30	1.093906094	1.011988012	7.488584	0.000818362
MEG/10/AA/GC	10.68	6.70	6.30	0.062734082	0.058988764	5.970149	3.50685E-05
MEG/10/AA/GD	10.09	40.80	38.80	0.404360753	0.384539148	4.901961	0.000196448
MEG/10/AA/WA	10.12	3.70	3.40	0.036561265	0.033596838	8.108108	2.92928E-05
MEG/10/AA/WB	10.08	33.20	30.40	0.329365079	0.301587302	8.433735	0.000275573
MEG/10/AA/WC	10.06	5.60	5.50	0.055666004	0.054671968	1.785714	9.88107E-06
MEG/10/AA/WD	10.04	9.40	8.60	0.093625498	0.085657371	8.510638	7.93638E-05
MEG/10/AA/DA	10.02	100.50	92.30	1.002994012	0.921157685	8.159204	0.00081673
MEG/10/BB-104/A	10.13	48.80	46.80	0.481737414	0.461994077	4.098361	0.0001949
MEG/10/K/020A	10.00	93.10	86.00	0.931	0.86	7.626208	0.00071

Pella

Table 102. Magnetic susceptibility data for Pella samples. W_{DRY} = dry weight; K_{LF} = volume magnetic susceptibility on low frequency; K_{HF} = volume magnetic susceptibility on high frequency; X_{LF} = mass-specific magnetic susceptibility for low frequency; X_{HF} = mass-specific magnetic susceptibility for high frequency; $X_{FD\%}$ = percentage of frequency-dependent magnetic susceptibility; X_{FD} = mass specific dual frequency dependent susceptibility.

Sample	W_{DRY} (g)	K_{LF} (10^{-5} SI)	K_{HF} (10^{-5} SI)	X_{LF} ($10^{-6}m^3kg^{-1}$)	X_{HF} (10^{-6} m^3kg^{-1})	$X_{FD\%}$	X_{FD} ($10^{-6}m^3kg^{-1}$)
PELLA/11/XXVIII/T/A	10.34	107.50	98.80	1.039651838	0.955512573	8.093023	0.000813726
PELLA/11/XXVIII/T/B	10.16	1.70	1.60	0.016732283	0.015748031	5.882353	9.68752E-06
PELLA/11/XXVIII/T/D	10.12	2.60	2.40	0.0256917	0.023715415	7.692308	1.95285E-05
PELLA/11/XVIII/W9/A	10.28	0.90	0.80	0.008754864	0.007782101	11.11111	9.46267E-06
PELLA/11/XVIII/W9/B	10.25	2.40	2.30	0.023414634	0.022439024	4.166667	9.51814E-06
PELLA/11/XVIII/W9/C	10.35	84.60	76.80	0.817391304	0.742028986	9.219858	0.000728138
PELLA/11/III/W41/A	10.12	12.10	11.20	0.119565217	0.110671937	7.438017	8.78783E-05
PELLA/11/III/W41/B	10.05	143.60	130.90	1.428855721	1.302487562	8.844011	0.001257395

Table 102 (cont.).

Sample	W_{DRY} (g)	K_{LF} (10^{-5} SI)	K_{HF} (10^{-5} SI)	X_{LF} ($10^{-6}m^3kg^{-1}$)	X_{HF} (10^{-6} m^3kg^{-1})	$X_{FD\%}$	X_{FD} ($10^{-6}m^3kg^{-1}$)
PELLA/11/III/W41/C	10.03	81.20	73.60	0.809571286	0.733798604	9.359606	0.00075546
PELLA/11/III/W41/D	10.33	159.40	145.70	1.543078412	1.410454985	8.59473	0.001283867
PELLA/11/III/W41/E	10.11	180.20	165.00	1.78239367	1.632047478	8.435072	0.001487104
PELLA/11/III/W41/F	10.13	95.80	86.60	0.945705824	0.854886476	9.60334	0.000896538
PELLA/11/III/W41/G	10.36	85.50	78.00	0.825289575	0.752895753	8.77193	0.000698782
PELLA/11/III/W41/H	10.38	33.00	30.10	0.317919075	0.289980732	8.787879	0.000269156
PELLA/11/III/W41/I	10.15	11.80	11.10	0.116256158	0.109359606	5.932203	6.79463E-05
PELLA/11/XXXIIW/A	10.06	21.30	19.50	0.211729622	0.193836978	8.450704	0.000177859
PELLA/11/XXXIIW/B	10.28	76.30	69.90	0.742217899	0.679961089	8.387942	0.000605611
PELLA/11/XXVIII/T/C	10.02	2.10	1.80	0.020958084	0.017964072	14.28571	2.98804E-05
PELLA/11/XXVIII/TW/A	10.11	106.70	97.10	1.055390702	0.960435213	8.997188	0.000939223
PELLA/11/XXVIII/TW/B	10.01	18.40	17.60	0.183816184	0.175824176	4.347826	7.98402E-05
PELLA/11/XXVIII/TW/C	10.01	9.00	8.60	0.08991009	0.085914086	4.444444	3.99201E-05
PELLA/11/III/S/A	9.99	3.50	3.20	0.035035035	0.032032032	8.571429	3.00601E-05
PELLA/11/III/S/B	9.98	3.20	2.80	0.032064128	0.028056112	12.5	4.01605E-05
PELLA/11/III/S/C	10.01	1.80	1.70	0.017982018	0.016983017	5.555556	9.98003E-06
PELLA/11/III/S/D	9.99	63.60	58.10	0.636636637	0.581581582	8.647799	0.000551102
PELLA/11/III/S/E	9.99	12.00	10.90	0.12012012	0.109109109	9.166667	0.00011022
PELLA/11/III/S/F	10.00	88.30	80.60	0.883	0.806	8.720272	0.00077
PELLA/11/III/S/G	10.00	142.60	130.40	1.426	1.304	8.5554	0.00122
PELLA/DT/70432	10.00	7.10	6.40	0.071	0.064	9.859155	7E-05
PELLA/DT/70460	10.02	5.50	4.90	0.05489022	0.048902196	10.90909	5.97607E-05
PELLA/DT/90628	10.07	177.70	162.60	1.764647468	1.61469712	8.497468	0.00148908
PELLA/DT/90647	10.00	46.00	42.30	0.46	0.423	8.043478	0.00037
PELLA/DT/50393	10.02	11.20	10.30	0.111776447	0.102794411	8.035714	8.96411E-05
PELLA/DT/50561	10.06	17.30	15.90	0.171968191	0.15805169	8.092486	0.000138335
PELLA/DT/50602	10.13	4.40	4.10	0.043435341	0.04047384	6.818182	2.9235E-05

Table 102 (cont.).

Sample	**W_{DRY}** (g)	**K_{LF}** (10^{-5} SI)	**K_{HF}** (10^{-5} SI)	**X_{LF}** ($10^{-6}m^3kg^{-1}$)	**X_{HF}** (10^{-6} m^3kg^{-1})	**$X_{FD\%}$**	**X_{FD}** ($10^{-6}m^3kg^{-1}$)
PELLA/DT/50608	10.12	22.70	20.90	0.2243083	0.206521739	7.929515	0.000175757
PELLA/DT/70185	10.07	3.70	3.40	0.0367428	0.033763654	8.108108	2.95844E-05
PELLA/DT/71165	10.17	148.70	136.40	1.462143559	1.341199607	8.271688	0.001189223
PELLA/DT/71282	10.07	6.10	5.70	0.060575968	0.056603774	6.557377	3.94458E-05
PELLA/DT/71283	10.04	3.80	3.60	0.037848606	0.035856574	5.263158	1.9841E-05

1.3 LOSS ON IGNITION

Dan

Sample	W_{DRY}	W_C	W_{550}	% OM
DAN/11/K/G/A	5.00	13.57	18.13	8.80
DAN/11/K/G/B	5.00	16.08	20.71	7.40
DAN/11/K/G/C	5.00	16.86	21.38	9.60
DAN/11/K/G/D	5.00	16.23	20.76	9.40
DAN/11/K/G/E	5.00	22.61	27.19	8.40
DAN/11/K/G/F	5.00	17.73	22.30	8.60
DAN/11/K/G/G	5.00	20.32	24.76	11.20
DAN/11/K/G/H	5.00	9.55	14.07	9.60
DAN/11/K/W/I	5.00	27.53	32.11	8.40
DAN/11/K/W/J	5.00	13.57	18.13	8.80
DAN/11/K/G/K	5.00	16.08	20.74	6.80
DAN/11/K/R/A	5.00	16.85	21.76	1.80
DAN/11/K/R/B	5.00	16.23	20.77	9.20
DAN/11/K/R/C	5.00	22.61	27.17	8.80
DAN/11/T3/W/A	5.00	17.73	22.35	7.60
DAN/11/T3/W/B	5.00	20.32	24.72	12.00

Table 103. Loss on ignition data for Dan samples. W_{DRY} = dry weight; W_C = weight of the crucible; W_{550} = weight after being heated in the furnace; % OM = percentage of organic material.

Megiddo

Sample	W_{DRY}	W_C	W_{550}	% OM
MEG/10/K/1A	5.00	13.57	18.43	2.80
MEG/10/K/1B	5.00	16.08	20.94	2.80
MEG/10/K/2A	5.01	16.85	21.74	2.40
MEG/10/K/2B	5.00	16.23	21.07	3.20
MEG/10/K/2C	5.00	22.61	27.38	4.60
MEG/10/K/2D	5.00	20.32	25.07	5.00
MEG/10/K/3A	5.00	17.73	22.49	4.80
MEG/10/K/3B	5.00	9.55	14.38	3.40
MEG/10/K/3C	5.00	27.53	32.32	4.20
MEG/10/K/3D	5.00	13.57	18.46	2.20
MEG/10/K/3E	5.00	16.08	20.77	6.20
MEG/10/K/3F	5.00	16.85	21.54	6.20
MEG/10/K/3G	5.00	16.23	20.86	7.40
MEG/10/K/4A	5.00	22.61	27.32	5.80
MEG/10/K/4B	5.00	17.73	22.56	3.40
MEG/10/K/4C	5.00	20.31	25.15	3.20
MEG/10/K/4D	5.00	9.55	14.41	2.80
MEG/10/K/4E	5.00	27.53	31.99	10.80
MEG/10/K/SA	5.00	13.57	18.15	8.40
MEG/10/K/SB	5.00	16.08	20.76	6.40
MEG/10/K/SC	5.00	16.85	21.50	7.00
MEG/10/K/SD	5.00	16.23	21.00	4.60
MEG/10/K/SE	5.00	22.61	27.25	7.20
MEG/10/K/SF	5.00	17.73	22.54	3.80
MEG/10/K/SG	5.00	20.31	24.84	9.40
MEG/10/AA/GA	5.00	9.55	14.42	2.60
MEG/10/AA/GB	5.00	27.53	32.20	6.60
MEG/10/AA/GC	5.00	13.57	18.48	1.80
MEG/10/AA/GD	5.00	16.08	20.90	3.60
MEG/10/AA/WA	5.00	16.85	21.75	2.00
MEG/10/AA/WB	5.00	16.23	20.84	7.80
MEG/10/AA/WC	5.00	22.61	27.28	6.60
MEG/10/AA/WD	5.00	17.73	22.40	6.60
MEG/10/AA/DA	5.00	20.32	25.04	5.60
MEG/10/BB-104/A	5.00	9.55	14.05	10.00
MEG/10/K/020A	5.00	27.52	32.26	5.20

Table 104. Loss on ignition data for Megiddo samples. W_{DRY} = dry weight; W_C = weight of the crucible; W_{550} = weight after being heated in the furnace; % OM = percentage of organic material.

Pella

Sample	W_{DRY}	W_C	W_{550}	% OM
PELLA/11/XXVIII/T/A	5.00	13.57	17.93	12.80
PELLA/11/XXVIII/T/B	5.00	16.08	20.56	10.40
PELLA/11/XXVIII/T/D	5.00	16.86	21.24	12.40
PELLA/11/XVIII/W9/A	5.00	16.23	20.79	8.80
PELLA/11/XVIII/W9/B	5.00	22.61	26.95	13.20
PELLA/11/XVIII/W9/C	5.00	17.73	22.03	14.00
PELLA/11/III/W41/A	5.00	20.32	24.64	13.60
PELLA/11/III/W41/B	5.00	9.55	13.94	12.20
PELLA/11/III/W41/C	5.00	27.53	31.97	11.20
PELLA/11/III/W41/D	5.00	13.57	18.09	9.60
PELLA/11/III/W41/E	5.00	16.08	20.76	6.40
PELLA/11/III/W41/F	5.00	16.85	21.35	10.00
PELLA/11/III/W41/G	5.00	16.23	20.91	6.40
PELLA/11/III/W41/H	5.00	22.61	27.30	6.20
PELLA/11/III/W41/I	5.00	17.73	22.36	7.40
PELLA/11/XXXIIW/A	5.00	20.32	25.00	6.40
PELLA/11/XXXIIW/B	5.00	9.55	13.97	11.60
PELLA/11/XXVIII/T/C	5.00	16.23	20.38	17.00
PELLA/11/XXVIII/TW/A	5.00	22.61	26.50	22.20
PELLA/11/XXVIII/TW/B	5.00	17.73	21.82	18.20
PELLA/11/XXVIII/TW/C	5.00	20.32	24.25	21.40
PELLA/11/III/S/A	5.00	9.55	14.08	9.40
PELLA/11/III/S/B	5.00	27.53	31.89	12.80
PELLA/11/III/S/C	5.00	13.57	18.05	10.40
PELLA/11/III/S/D	5.00	16.08	20.50	11.60
PELLA/11/III/S/E	5.00	16.85	21.20	13.00
PELLA/11/III/S/F	5.00	16.23	20.55	13.60
PELLA/11/III/S/G	5.00	22.61	27.00	12.20
PELLA/DT/70432	5.00	17.73	22.55	3.60
PELLA/DT/70460	5.00	20.31	25.13	3.60
PELLA/DT/90628	5.00	9.55	14.21	6.80
PELLA/DT/90647	5.00	27.53	32.07	9.20
PELLA/DT/50393	5.00	13.57	17.98	11.80
PELLA/DT/50561	5.00	16.08	20.90	3.60
PELLA/DT/50602	5.00	16.86	21.23	12.60
PELLA/DT/50608	5.00	16.23	20.60	12.60
PELLA/DT/70185	5.00	22.61	27.03	11.60
PELLA/DT/71165	5.00	17.73	22.44	5.80
PELLA/DT/71282	5.00	20.32	24.90	8.40
PELLA/DT/71283	5.00	9.55	14.17	7.60

Table 105. Loss on ignition data for Pella samples. W_{DRY} = dry weight; W_C = weight of the crucible; W_{550} = weight after being heated in the furnace; % OM = percentage of organic material.

1.4 MICROARTEFACT ANALYSIS

Dan

Table 106. Microartefact scores (from 0 – 3, non- to high-frequency) for Dan samples.

Sample	Rounded	Charcoal	Shell	Bone	Sherd	Flint	Quartz	Basalt	Chaulk	Crystaline	White	Total Anthro
DAN/11/K/G/A	0	1	1	1	2	0	1	1	0	0	0	**4**
DAN/11/K/G/B	0	2	1	1	2	1	2	1	0	0	0	**6**
DAN/11/K/G/C	0	1	1	1	1	2	2	1	0	2	0	**5**
DAN/11/K/G/D	0	2	1	1	1	1	1	0	0	2	0	**5**
DAN/11/K/G/E	0	2	1	0	2	2	1	1	0	0	0	**6**
DAN/11/K/G/F	0	2	1	0	1	1	1	1	0	0	0	**4**
DAN/11/K/G/G	0	2	1	0	1	0	2	1	0	1	0	**3**
DAN/11/K/G/H	0	1	1	0	1	1	2	2	0	0	0	**3**
DAN/11/K/W/I	0	1	1	1	1	1	1	1	0	0	0	**4**
DAN/11/K/W/J	0	1	1	0	1	0	1	0	0	0	0	**2**
DAN/11/K/G/K	0	1	1	0	0	1	1	1	0	0	0	**2**
DAN/11/K/R/A	0	0	0	0	0	0	1	0	0	2	0	**0**
DAN/11/K/R/B	0	0	1	0	0	0	1	2	0	0	0	**0**
DAN/11/K/R/C	0	0	1	1	0	0	1	1	0	0	0	**1**
DAN/11/T3/W/A	2	2	1	0	0	1	1	1	0	0	0	**3**
DAN/11/T3/W/B	0	1	1	1	0	0	1	1	0	0	0	**2**

Megiddo

Table 107. Microartefact scores (from 0 – 3, non- to high-frequency) for Megiddo samples.

Sample	Rounded	Charcoal	Shell	Bone	Sherd	Flint	Quartz	Basalt	Chaulk	Crystaline	White	Total Anthro
MEG/10/K/1A	0	0	1	0	0	0	1	1	0	0	0	**0**
MEG/10/K/1B	0	0	1	0	0	0	1	1	0	0	0	**0**
MEG/10/K/2A	0	0	1	0	0	0	1	1	0	0	0	**0**
MEG/10/K/2B	0	0	1	0	0	0	1	2	0	0	0	**0**
MEG/10/K/2C	0	0	1	0	1	0	2	2	0	0	0	**1**
MEG/10/K/2D	0	0	1	1	1	0	1	2	0	0	0	**2**
MEG/10/K/3A	0	1	1	0	1	1	1	2	1	0	2	**3**
MEG/10/K/3B	0	1	2	0	0	1	1	0	0	1	2	**2**
MEG/10/K/3C	0	1	1	0	0	0	2	1	0	0	0	**1**
MEG/10/K/3D	0	1	1	0	0	1	1	1	0	0	2	**2**
MEG/10/K/3E	1	1	1	1	2	1	1	2	0	0	0	**5**
MEG/10/K/3F	1	1	1	1	1	1	1	2	0	1	1	**4**
MEG/10/K/3G	0	1	1	1	1	1	1	2	0	0	1	**4**
MEG/10/K/4A	0	1	2	0	0	1	1	1	0	1	1	**2**
MEG/10/K/4B	1	1	1	0	0	1	1	1	0	0	0	**2**
MEG/10/K/4C	0	1	1	1	1	0	1	1	0	1	0	**3**
MEG/10/K/4D	0	1	1	0	0	0	1	1	0	1	0	**1**
MEG/10/K/4E	0	1	1	0	0	0	1	0	0	0	0	**1**
MEG/10/K/SA	0	1	1	2	2	1	1	2	0	0	0	**6**
MEG/10/K/SB	0	1	1	1	0	1	1	1	0	0	0	**3**
MEG/10/K/SC	0	1	2	0	1	0	1	1	0	1	0	**2**
MEG/10/K/SD	0	0	2	0	0	0	1	1	0	2	0	**0**
MEG/10/K/SE	1	1	1	1	1	1	1	2	0	0	0	**4**
MEG/10/K/SF	0	1	2	0	0	0	1	1	0	1	0	**1**
MEG/10/K/SG	0	1	1	1	2	0	1	2	0	0	0	**4**

Table 107 (cont.).

Sample	Rounded	Charcoal	Shell	Bone	Sherd	Flint	Quartz	Basalt	Chaulk	Crystaline	White	Total Anthro
MEG/10/AA/GA	0	0	1	0	1	0	1	1	0	2	0	**1**
MEG/10/AA/GB	0	1	1	0	1	1	1	2	0	0	0	**3**
MEG/10/AA/GC	0	1	1	0	0	0	1	1	0	2	0	**1**
MEG/10/AA/GD	0	1	1	1	1	1	1	1	0	0	0	**4**
MEG/10/AA/WA	0	0	1	0	0	0	0	1	0	2	0	**0**
MEG/10/AA/WB	0	1	2	0	1	1	1	2	0	1	0	**3**
MEG/10/AA/WC	1	1	2	0	0	1	1	2	0	2	0	**2**
MEG/10/AA/WD	0	0	2	0	1	0	1	1	0	2	0	**1**
MEG/10/AA/DA	0	1	1	1	1	1	1	2	0	0	0	**4**
MEG/10/BB-104/A	2	1	1	1	1	1	2	1	0	1	0	**4**
MEG/10/K/020A	0	2	1	1	2	1	1	2	0	0	0	**6**

Pella

Table 108. Microartefact scores (from 0 – 3, non- to high-frequency) for Pella samples.

Sample	Rounded	Charcoal	Shell	Bone	Sherd	Flint	Quartz	Basalt	Chaulk	Crystaline	White	Total Anthro
PELLA/11/XXVIII/T/A	0	2	2	1	1	1	2	1	0	0	0	**5**
PELLA/11/XXVIII/T/B	0	1	2	1	1	0	1	0	0	0	1	**3**
PELLA/11/XXVIII/T/D	0	1	1	1	1	0	1	0	0	0	1	**3**
PELLA/11/XVIII/W9/A	0	1	1	1	0	0	1	0	0	0	1	**2**
PELLA/11/XVIII/W9/B	0	0	1	1	1	1	1	0	0	0	0	**3**
PELLA/11/XVIII/W9/C	0	2	2	1	1	1	1	2	0	0	0	**5**
PELLA/11/III/W41/A	0	0	2	1	0	1	1	0	0	0	0	**2**
PELLA/11/III/W41/B	0	2	1	1	1	2	1	1	0	0	0	**6**
PELLA/11/III/W41/C	0	2	1	1	1	2	1	2	0	0	0	**6**
PELLA/11/III/W41/D	0	1	1	1	1	2	1	1	0	0	0	**5**
PELLA/11/III/W41/E	0	2	2	1	1	2	1	2	0	0	0	**6**
PELLA/11/III/W41/F	0	1	2	1	1	2	1	2	0	0	0	**5**
PELLA/11/III/W41/G	0	1	1	1	0	2	1	0	0	0	1	**4**
PELLA/11/III/W41/H	0	1	1	0	0	2	1	0	0	2	1	**3**
PELLA/11/III/W41/I	0	1	1	0	0	2	1	0	0	2	1	**3**
PELLA/11/XXXIIW/A	0	0	1	0	0	1	1	0	0	0	1	**1**
PELLA/11/XXXIIW/B	0	1	1	1	0	2	1	1	0	0	0	**4**
PELLA/11/XXVIII/T/C	0	0	1	0	1	1	1	0	0	0	1	**2**
PELLA/11/XXVIII/TW/A	0	1	1	0	1	1	1	1	0	0	0	**3**
PELLA/11/XXVIII/TW/B	0	0	1	1	0	2	1	0	0	0	0	**3**
PELLA/11/XXVIII/TW/C	1	0	1	1	0	2	1	0	0	0	0	**3**
PELLA/11/III/S/A	0	0	1	0	1	0	0	0	0	1	1	**1**
PELLA/11/III/S/B	0	0	1	0	1	0	0	0	1	1	1	**1**
PELLA/11/III/S/C	0	0	1	0	0	0	1	0	2	2	1	**0**
PELLA/11/III/S/D	0	2	1	1	1	2	1	0	0	2	0	**6**

Table 108 (cont.).

Sample	Rounded	Charcoal	Shell	Bone	Sherd	Flint	Quartz	Basalt	Chaulk	Crystaline	White	Total Anthro
PELLA/11/III/S/E	0	1	1	0	1	1	1	0	2	1	2	**3**
PELLA/11/III/S/F	0	1	1	1	1	2	1	1	0	0	0	**5**
PELLA/11/III/S/G	0	1	1	1	0	1	1	1	0	0	0	**3**
PELLA/DT/70432	0	1	1	2	1	1	1	1	2	2	1	**5**
PELLA/DT/70460	0	1	1	2	0	1	2	2	2	1	2	**4**
PELLA/DT/90628	0	2	1	1	1	2	1	1	0	0	0	**6**
PELLA/DT/90647	0	1	1	1	1	2	1	1	0	2	0	**5**
PELLA/DT/50393	0	1	1	0	0	1	1	1	1	2	1	**2**
PELLA/DT/50561	0	0	0	0	1	1	1	1	0	2	0	**2**
PELLA/DT/50602	0	1	1	0	0	1	2	0	1	2	0	**2**
PELLA/DT/50608	0	1	1	0	0	1	1	1	0	2	0	**2**
PELLA/DT/70185	1	0	1	0	0	1	2	0	2	2	1	**1**
PELLA/DT/71165	0	1	2	0	0	2	2	1	0	1	0	**3**
PELLA/DT/71282	0	0	1	0	0	1	1	1	0	2	2	**1**
PELLA/DT/71283	0	0	1	0	0	0	1	0	2	2	1	**0**

1.5 SEDIMENT ANALYSIS FORM

Sediment Analysis Form

Robert Homsher
PhD Research
Sediment Lab, Institute of Archaeology, UCL

Sample ID: _____ Date: _____

Description: _____

Total Initial Sample Weight (grams): _____

Initial Observations:

1. Colour: _____ (dry) _____ (moist)

2. General Make-up: _____

3. Plasticity: _____

4. Visible Grain-Size: _____

5. Sorting: _____

6. Sphericity: _____ Shape: _____

Notes:

Magnetic Susceptibility

W_{DRY}: _____ (grams)

Volume Magnetic Susceptibility:
κ (meter reading) = M (magnetism per unit volume) / H (applied electric field)

κ Values: LF: _____ (10^{-5} SI) HF: _____ (10^{-5} SI)

Mass-Specific Magnetic Susceptibility: $\chi = (\kappa / W_{DRY}) / 10$

X_{LF} Value: _____ (10^{-6} m^3kg^{-1}) X_{HF} Value: _____ (10^{-6} m^3kg^{-1})

% Frequency Dependent Susceptibility: $X_{FD\%} = [(X_{LF} - X_{HF}) / X_{LF}] \times 100 =$ _____

Mass Specific Dual Frequency Dependent Susceptibility:

$X_{FD} = [(X_{LF} - X_{HF}) / W_{DRY}] / 10 =$ _____ (10^{-6} m^3kg^{-1})

Notes:

Loss on Ignition

W_{DRY} (grams): _____

Crucible Number: _____ W_C (grams): _____

Furnace Start Time: _____ End Time (+ 2.0 hr): _____

W_{550} (grams): _____

% OM = 100[W_{DRY} – (W_{550} – W_C)] / (W_{DRY})

% Organic Material: _____

Notes:

pH Level

W_{DRY} (grams): _____

Solution Time Start: _____

pH Reading: _____

Temperature (degrees Celsius): _____

Notes:

Phosphate Analysis

W_{DRY} (grams): _____

Time for colour after application of Reagent B: _____ *Range*: _____

Length of radiating lines (mm): _____

Completeness of colour ring: 2 = 100% 1 < 100%

Colour: 1 = Light Blue 2 = Medium Blue 3 = Dark Blue

Total Score: _____ *Threshold*: _____

Notes:

Particle-Size Analysis

Sample Weight (grams): _____ Hydrometer #: _____

Start Time:

Clock Time	Elapsed Time	Temp ˚C	Hydrometer Reading	Corr. Fact	Corr. Reading	Weight %	Cumulative Coarser	Phi Size Class
	30 sec							3.8
	45 sec							4.1
	1 min							4.3
	2 “							4.8
	5 “							5.5
<< Rinse Hydrometer and leave out >>								
	15							6.3
	30							6.7
	60							7.2
	120							7.7
	240							8.2
	480							8.7
	1440							9.5

Sand Fraction Weight (grams):

Diameter (mm)	Sieve No.	Phi Size	Weight	Weight %	Cumulative % Coarser	Composition
> 2.00	10	-1				
> 1.00	18	0				
> 0.50	35	1				
> 0.25	60	2				
> 0.125	120	3				
> 0.063	230	4				
TOTAL						
Pan Fract.						

Mean: _____ Median: _____

Sorting: _____ Skewness: _____ Kurtosis: _____

Overall Grain-Size Percents:

Clay: _____ Silt: _____ Sand: _____

Microartefact Analysis:

General Observations:

> 2.00: _____

> 1.00: _____

> 0.50: _____

> 0.25: _____

> 0.125: _____

Percentage of Artefacts:

Diameter (mm)	Charcoal	Shell	Bone	Sherd	Flint	Limestone	Quartz	Kurkar	Basalt	Other
> 2.00										
> 1.00										
> 0.50										
> 0.25										
> 0.125										

Notes:

APPENDIX 2: METRIC ARCHITECTURAL DATA

Appendix 2 contains all of the metric architectural data I collected for my research from all available sources, including site reports, various publications and personal observation. Appendix 2.1 contains my database of mud-brick dimensions, organized by different variables, as well as relevant statistical descriptions of these data divided by EB, MB, northern Levant and southern Levant. Appendix 2.2 includes all of the widths of walls, which are subdivided according to different types, and statistically described according to the EB and MB. Appendix 2.3 includes various dimensions of different types of architecture, which are subdivided according to type, and statistically described.

2.1 MUD-BRICK DIMENSIONS

Mud-brick database

In the following database of mud-brick dimensions, I describe the cases by the following variables: 'site', 'region', 'period', 'length', 'width, 'height', 'ratio' and 'sub-ratio'. The region simply distinguishes between the northern Levant and the southern Levant in order to track any major variation between the two. I use the following designations for different chronological periods, in order: EB (in general, where detailed information is lacking), EB I, EB II-III, EB IV (northern Levant), IB (southern Levant), MB (in general, where detailed information is lacking), MB I, MB I/II, MB II, MB II-III (where appropriate) and LB. The two variables of 'length' and 'width' correspond to the longer side and the shorter side of the brick, respectively. 'Ratio' corresponds to an inferred ratio of length:width:height, and 'sub-ratio' corresponds to a ratio of only length:width. Cases highlighted in dark represent those that I averaged in order to avoid skewing the data for statistical analysis. Italicized entries indicate a reconstruction due to a lack of information.

By site

Table 109. Mud-brick dimensions organized by site.

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Bderi	EB	20	20	*10*	*2:2:1*	=	Pfalzner 1987: 294
Ajjul	MB II	*30*	*16*	*12*		*2:1*	Petrie 1931; 1934; 1952
Ajjul	MB II	36	36	*12*	3:3:1	=	palace II (xii), yellow; Petrie 1931; 1934; 1952
Ajjul	MB II	38	25	13	3:2:1		Petrie 1931; 1934; 1952
Ajjul	MB II	38	37	*12*	3:3:1	=	Petrie 1931; 1934; 1952
Ajjul	MB II	50	38	*12*	4:3:1		Petrie 1931; 1934; 1952
Ajjul	MB II	53	40	*13*	5:3:1		yellow; Petrie 1931; 1934; 1952
Ajjul	MB II	56	36	*12*	5:3:1		Petrie 1931; 1934; 1952
Alalakh	EB I	34	27	*10*	3:3:1		Woolley 1955: 14; Stratum XIV; domestic
Alalakh	EB I	43	39	*10*	4:4:1	=	Woolley 1955: 224; Stratum XIV average brick
Alalakh	EB I	50	44	*10*	5:4:1		Woolley 1955: 14; Stratum XIV; domestic
Alalakh	EB I	50	40	*10*	5:4:1		Woolley 1955: 224; Stratum XIV large bricks
Alalakh	EB I	52	52	*10*	5:5:1	=	Woolley 1955: 46; Stratum XIV; temple platform

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=	Woolley 1955: 38; Stratum XVI; temple "block"
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=	Woolley 1955: 36; Stratum XVI; temple; mudbricks faced with plaster
Alalakh	EB II-III	30	23	*10*	3:2:1		Woolley 1955: 17; Stratum XII; palace
Alalakh	EB II-III	36	7.5	*10*	3:1:1		Woolley 1955: 18; Stratum XII; palace
Alalakh	EB II-III	37	19	10	4:2:1	2:1	Woolley 1955: 23; Stratum XII; palace
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=	Woolley 1955: 17; Stratum XII; palace
Alalakh	EB II-III	42	42	*10*	4:4:1	=	Woolley 1955: 55; Stratum XII brick average measurements
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1	Woolley 1955: 17; Stratum XII; palace
Alalakh	EB II-III	43	43	9	5:5:1	=	Woolley 1955: 22; Stratum XII; domestic
Alalakh	EB II-III	44	44	8.2	5:5:1	=	Woolley 1955: 17; Stratum XII; palace
Alalakh	EB II-III	47	44	*10*	4:4:1	=	Woolley 1955: 55; Stratum XII brick average measurements
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=	Woolley 1955: 17; Stratum XII; palace
Alalakh	EB II-III	50	29	*10*	5:3:1		Woolley 1955: 17; Stratum XII; palace
Alalakh	EB IV	32.5	32.5	7	5:5:1	=	Woolley 1955: 25; Stratum XI; palace
Alalakh	EB IV	39		7.5	5:1		Woolley 1955: 25; Stratum XI; palace
Alalakh	EB IV	40	40	10	4:4:1	=	Woolley 1955: 26; Stratum X; palace
Alalakh	EB IV	42	42	*10*	4:4:1	=	Woolley 1955: 55; Stratum X brick average measurements
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=	Woolley 1955: 55; Stratum XI brick average measurements
Alalakh	EB IV	43	24	*10*	4:2:1	2:1	Woolley 1955: 25; Stratum XI; palace
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=	Woolley 1955: 25; Stratum XI; palace
Alalakh	EB IV	47	47	*10*	5:5:1	=	Woolley 1955: 55; Stratum X temple
Alalakh	EB IV	47	47	*10*	5:5:1	=	Woolley 1955: 55; Stratum X brick average measurements
Alalakh	LB	26	26	5.5	5:5:1	=	Woolley 1955: 71; Stratum IV
Alalakh	LB	70	42			5:3	Woolley 1955: 109; Stratum V palace

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Alalakh	MB	40	40	*12*	4:4:1	=	Yener and Yazicioglu 2010: 25; large orange-brown bricks; MB city wall
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=	Woolley 1955: 55; Stratum IX brick average measurements
Alalakh	MB I/II	32	32	*12*	3:3:1	=	Woolley 1955:55; Stratum VIII brick average measurements
Alalakh	MB I/II	35	35	*12*	3:3:1	=	Woolley 1955: 55; Stratum VIII brick average measurements
Alalakh	MB I/II	43	35	*12*	4:3:1		Woolley 1955: 55; Stratum VIII brick average measurements
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=	Woolley 1955: 55; Stratum VII brick average measurements
Alalakh	MB II	62	42	15	4:3:1	3:2	Woolley 1955: 60; Stratum VII temple; kiln-fired bricks
Aphek	MB I	25	20	*12*			Reddish-brown; Kochavi 2000
Aphek	MB I	40	20	12	3:2:1	2:1	Kochavi 2000
Arqa	EB IV	40	20	10	4:2:1	2:1	Thalmann 2006: 22
Arqa	EB IV	40	18	*10*		2:1	Thalmann 2006: 24
Arqa	EB IV	50	30	7	7:4:1	5:3	Thalmann 2006: 22; sandy-clayey compact material, red-brown, coarse vegetal inclusions.
Arqa	EB IV	50	25	12	4:2:1	2:1	Thalmann 2006: 22
Arqa	EB IV	50	20	*10*	5:2:1		Thalmann 2006: 24
Arqa	EB IV	55	35	12	5:3:1		Thalmann 2006: 22
Ashkelon	MB I	40	35	10	4:3:1		Ph. 14; Voss 2002
Ashkelon	MB I	45	33	12	4:3:1		Ph. 13; Voss 2002
Ashkelon	MB I	48	33	12	4:3:1		Ph. 13; Voss 2002
Ashkelon	MB I	51	34	13	4:3:1		Burke 2008; Ph. 13 revetment
Ashkelon	MB I	50	33	11	4:3:1		Burke 2008; Ph. 13 revetment
Ashkelon	MB I	32	32	11	3:3:1	=	Burke 2008; Ph. 13 wall inner courtyard F.46
Ashkelon	MB II	50	36	10	5:3:1		Ph. 11; Voss 2002; whole complex
Ashkelon	MB II	38	38	10	4:4:1	=	Ph. 11; Burke 2008, whole complex
Beit Mirsim	MB I	34	16	*12*		2:1	Patrician House Stratum G (Albright 1938); walls .80m
Beit Mirsim	MB II	70	70	*12*	6:6:1	=	palace, Stratum D (Albright 1938)
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1	palace, Stratum D (Albright 1938)

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Beth Shean	LB	52	36	16	3:2:1		average; light brownish, same mortar; Rowe 1940
Beth Shean	MB II-III	33	27	*12*	3:3:1	=	building 7x7, walls .9-1.1m wide, Rowe 1940
Beth Shean	MB II-III	50	40	*12*	4:3:1		Same as above; Rowe 1940
Beth Shean	MB II-III	55	45	*12*	5:4:1		building 7x7, walls .9-1.1m wide
Beth Shemesh	MB II	50	40	14	5:4:1		Bunimovitz & Lederman 2003
Beth Yerah	EB	40	30	10	4:3:1		Maisler *et. al.* 1952: 172
Beth Yerah	EB	30	25	10	*3:2:1*		EB I, domestic; Maisler et al. 1952 IEJ 2:165-73
Beth Yerah	EB	40	30	10	4:3:1		EB III, 8w wall; Maisler et al. 1952 IEJ 2:165-73
Burak, el-	MB I/II	40	40	12	3:3:1	=	Fortress, Sader & Kamlah 2010, 135
Carchemish	LB	37	37	10.5	3:3:1	=	Woolley 1921: 198 "King's Gate"
Carchemish	MB	35	26	11	3:2:1		Woolley 1921: 66; Middle Hittite fort
Carchemish	MB	42	21	13	*3:2:1*	2:1	Woolley 1921: 91
Carchemish	MB	42	35	*12*	4:3:1		Woolley 1921: 91
Carchemish	MB	49.5	20	9.5	5:2:1		Woolley 1921: 209; wall
Carchemish	MB II	40	38	13	3:3:1		Woolley 1921
Dan	MB I	57	38	14	*4:3:1*		Gate, Getty Inst.
Dan	MB I	38	38	13	3:3:1	=	Gate, N. Tower; Pers. Observation
Dan	MB I	42	*40*	13	*3:3:1*	=	Gate, N. Tower; Pers. Observation
Dan	MB I	40	*40*	10	4:4:1	=	Early Wall outside Gate; Pers. Obs.
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=	Gate, S. addition; Pers. Obs.
Deir Alla	LB	56	40	10	5:4:1		Wall D/H 17.7; Franken and Ibrahim 1978 ADAJ XXII 57-80
Deir Alla	MB II-III	60	40	11	6:4:1	3:2	6/5:4:1?; Van der Kooij and Ibrahim 1989
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2	City Wall and Palace G; Matthiae 2000:580
Ebla	MB I/II	34	32	11	3:3:1	=	W fortress; typical MB 30-32x32-35x10-12; Peyronel 2000:1354, n.9
Gerisa	MB I/II	35	35	*12*	3:3:1	=	Herzog 1993
Gerisa	MB I/II	40	40	*12*	3:3:1	=	Herzog 1993
Gerisa	MB I/II	50	50	*12*	4:4:1	=	Herzog 1993
Gerisa	MB I/II	50	40	*12*	4:3:1		Herzog 1993
Gerisa	MB I/II	55	40	*12*	*4:3:1*		Herzog 1993
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1	Dever 1970; 1974
Hadidi	EB	22	11	10	2:1:1		Finet 1979
Hadidi	MB I/II	34	32	12	3:3:1		Dornemann 1979: 132
Hadidi	MB I/II	40	40	10	4:4:1	=	Finet 1979

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Hadidi	MB I/II	74	36	14	6:3:1	2:1	McLaren 2003, 30
Hamidi	LB	40	40	10	4:4:1		Wafler 1990: 222
Hazor	MB I/II	50	40		4:3:1		City Wall Area A; Yadin et al. 1989, 51.
Hazor	MB I/II	40	30	15	3:2:1		Yadin et al. 1989
Hazor	MB I/II	45	30	15	3:2:1		vertical separators 10cm or less, Yadin et al. 1989
Hesi, el-	EB	48	21	12	4:2:1		Petrie 1891: 35
Hesi, el-	EB	48	31	12	4:3:1		Petrie 1891: 35
Hesi, el-	EB	57	31	11	5:3:1		Petrie 1891: 35
Ifshar	MB I/II	60	40	11	6:4:1		wall widths: 40, 60, 100; E. Marcus, pers. comm.
Jericho	EB	36	32	15	*2:2:1*		Kenyon 1981
Jericho	EB	40	28	8	*5:4:1*		Kenyon 1981
Jericho	EB	40	24	7	*6:3:1*		house, different colours; Kenyon 1981
Jericho	EB	42	36	16	*3:2:1*		Kenyon 1981
Jericho	EB	43	29	7	6:4:1		city wall; Kenyon 1981
Jericho	MB I/II	30	30	10	3:3:1	=	Sarie 1998
Jericho	MB I/II	31	31	16	2:2:1	=	Kenyon 1981
Jericho	MB I/II	36	31	13	3:3:1		tower; wall; Garstang 1932, 15
Jericho	MB I/II	36	31	16	2:2:1		*not typical; Kenyon 1981
Jericho	MB I/II	40	32	*12*			Kenyon 1981
Jericho	MB I/II	41	41	10	4:4:1	=	Sellin & Watzinger 1913, 25
Jericho	MB I/II	41	30	10	4:3:1		" two rows arranged length-wise
Jericho	MB I/II	42	36	15	*3:2:1*		W. 7 Marchetti 2003
Jericho	MB I/II	50	34	11.5	4:3:1		Kenyon 1981
Jericho	MB I/II	50	32	11.5	4:3:1		Kenyon 1981
Jericho	MB I/II	50	50	14	4:4:1	=	Kenyon 1981
Jericho	MB I/II	52	25	10	5:2:1		greenish, Kenyon 1981
Jidle	EB	32	16	17	2:1:1		Mallowan 1946: 134
Jidle	EB	44	44	14	3:3:1	=	Mallowan 1946: 134
Kannas	MB I/II	40	40	10	3:3:1	=	McLaren 2003, 30
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=	Richard 1983: 50
Kitan	MB II					=	Eisenberg 1993
Lachish	MB II	15	10	5	3:2:1		Ussishkin 2004
Lachish	MB II	30	30	11	3:3:1	=	Ussishkin 2004:289
Lachish	MB II	35	35	11	3:3:1	=	Ussishkin 2004:289; also found in walls one brick wide
Lachish	MB II	50	25	*12*	4:2:1	2:1	Ussishkin 2004
Lachish	MB II	57	42	12	*5:4:1*		Tufnell 1958:36; burnt; lowest levels of fosse
Lachish	MB II	56	40	20	*3:2:1*		Ussishkin 2004:300; silo wall .55w
Lachish	MB II	56	35	11	5:3:1		Ussishkin 2004:302Wall 7112
Megiddo	MB I	33	33	11	3:3:1	=	pers. obsv.
Megiddo	MB I	33	13	11	3:1:1		pers. obsv.
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*	pers. obsv.
Megiddo	MB I	35	35	10	*3:3:1*	=	Chicago BB; course brown clay; also Chicago CC

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Megiddo	MB I	40	40	10	4:4:1	=	Chicago CC; very fine light-colored clay
Megiddo	MB I	53	32	11	5:3:1	3:2	pers. obsv.
Megiddo	MB I	66	33	11	6:3:1	2:1	Schumacher 1908
Megiddo	MB I	100	33	11	9:3:1	3:1	Schumacher 1908
Nimrin	MB II-III	40	40	16	3:3:1	=	pers. obsv.
Pella	EB	25	25	10	*2:2:1*	=	Domestic; 070432; D. Thomas
Pella	EB	18	15	11			Domestic; 070460; D. Thomas
Pella	EB	40	36	10	*4:3:1*		Domestic; 090628; D. Thomas
Pella	EB	45	25	7	*6:3:1*	2:1	Fortification; 090647; D. Thomas
Pella	EB II	46		7.5			Husn Wall 36; perso. Obsv.
Pella	LB	40	35	10			Elite Dwelling; 090700; D. Thomas
Pella	MB	38	37	10	*3:3:1*	=	Installation; 071165; D. Thomas
Pella	MB I	35	35	12	3:3:1	=	Fortification; 071282; D. Thomas
Pella	MB I	48	35	10	*4:3:1*		Fortification; 071283; D. Thomas
Pella	MB I	40	40	12	3:3:1	=	McLaren 2003
Pella	MB I	40	40	10	4:4:1	=	Tower 1; laid with a running bond; McLaren 2003:17
Pella	MB I	50	40	10	5:4:1		Tower 1; interior tower face; McLaren 2003:17
Pella	MB I	70	40	10	7:4:1		Tower 1; inside of the core; McLaren 2003:17
Pella	MB I/II	40	40	8	4:4:1	=	paving bricks (4)between IIIF walls 3 and 4; Smith and Potts 1992:46
Pella	MB II	23	18	14			Temple; 050393; D. Thomas
Pella	MB II	35	32	12	3:3:1	=	Temple; 050602 and 070185 av.; D. Thomas
Pella	MB II	55	38	12	*4:3:1*		Temple; 050608; D. Thomas
Qatna	LB	38	38	15		=	Luciani 2002: 147; beige silty loam, weak consistency, no chaff but some gravel
Qatna	MB	35	35	11	3:3:1	=	Al-Maqdissi et al. 2002: 49
Shechem	MB II	36	36	16	2:2:1	=	Campbell 2002
Shechem	MB II	40	40	15	3:3:1	=	XVII, in wall 9611 with alternating courses of reddish-brown and white; Campbell 2002
Shechem	MB II	55		12			XVI, Wall A. Campbell 2002, 115
Sweyhat, es-	EB	50	40	10	5:4:1		Holland 1976: 49
Taya	EB	36	32	10	3:3:1	=	Reade 1968: 241
Timnah	MB II	30		11	3:1		Mazar 1997

Table 109 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio	Comment
Timnah	MB II	50	50	*12*	4:4:1	=	unclear: measurements given are 45, 20-25, 50 x 50-75; Mazar 1997
Timnah	MB II	60	30	11	6:3:1		reddish, light brown, dark brown (alluvial), light/dark gray (ashy); Mazar 1997
Timnah	MB II	75	50	20	*4:3:1*		Mazar 1997
Timnah	MB II	75	50	*12*	6:4:1	3:2	Mazar 1997
Zeror	MB I	37	37	10	3:3:1	=	inner; Ohata 1970
Zeror	MB I	37	20	*10*	4:2:1		“clay”; Ohata 1970
Zeror	MB I	50	50	10	5:5:1	=	Ohata 1970
Zeror	MB I	56	39	10	6:4:1		Ohata 1970
Zeror	MB I	59	45	10	6:4:1		outer; Ohata 1970

By period

Table 110. Mud-brick dimensions organized by period.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Bderi	EB	20	20	*10*	*2:2:1*	=
Beth Yerah	EB	40	30	10	4:3:1	
Beth Yerah	EB	30	25	10	*3:2:1*	
Beth Yerah	EB	40	30	10	4:3:1	
Hadidi	EB	22	11	10	2:1:1	
Hesi, el-	EB	48	21	12	4:2:1	
Hesi, el-	EB	48	31	12	4:3:1	
Hesi, el-	EB	57	31	11	5:3:1	
Jericho	EB	36	32	15	*2:2:1*	
Jericho	EB	40	28	8	*5:4:1*	
Jericho	EB	40	24	7	*6:3:1*	
Jericho	EB	42	36	16	*3:2:1*	
Jericho	EB	43	29	7	6:4:1	
Jidle	EB	32	16	17	2:1:1	
Jidle	EB	44	44	14	3:3:1	=
Pella	EB	25	25	10	*2:2:1*	=
Pella	EB	18	15	11		
Pella	EB	40	36	10	*4:3:1*	
Pella	EB	45	25	7	*6:3:1*	2:1
Sweyhat, es-	EB	50	40	10	5:4:1	
Taya	EB	36	32	10	3:3:1	=
Alalakh	EB I	34	27	*10*	3:3:1	
Alalakh	EB I	43	39	*10*	4:4:1	=
Alalakh	EB I	50	44	*10*	5:4:1	
Alalakh	EB I	50	40	*10*	5:4:1	
Alalakh	EB I	52	52	*10*	5:5:1	=
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Pella	EB II	46		7.5		
Alalakh	EB II-III	30	23	*10*	3:2:1	
Alalakh	EB II-III	36	7.5	*10*	3:1:1	
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Alalakh	EB II-III	43	43	9	5:5:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Alalakh	EB II-III	50	29	*10*	5:3:1	
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Alalakh	EB IV	39		7.5	5:1	
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Arqa	EB IV	40	20	10	4:2:1	2:1
Arqa	EB IV	40	18	*10*		2:1
Arqa	EB IV	50	30	7	7:4:1	5:3
Arqa	EB IV	50	25	12	4:2:1	2:1
Arqa	EB IV	50	20	*10*	5:2:1	
Arqa	EB IV	55	35	12	5:3:1	
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=

Table 110 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Alalakh	MB	40	40	*12*	4:4:1	=
Carchemish	MB	35	26	11	3:2:1	
Carchemish	MB	42	21	13	*3:2:1*	2:1
Carchemish	MB	42	35	*12*	4:3:1	
Carchemish	MB	49.5	20	9.5	5:2:1	
Pella	MB	38	37	10	*3:3:1*	=
Qatna	MB	35	35	11	3:3:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Aphek	MB I	25	20	*12*		
Aphek	MB I	40	20	12	3:2:1	2:1
Ashkelon	MB I	40	35	10	4:3:1	
Ashkelon	MB I	45	33	12	4:3:1	
Ashkelon	MB I	48	33	12	4:3:1	
Ashkelon	MB I	51	34	13	4:3:1	
Ashkelon	MB I	50	33	11	4:3:1	
Ashkelon	MB I	32	32	11	3:3:1	=
Beit Mirsim	MB I	34	16	*12*		2:1
Dan	MB I	57	38	14	*4:3:1*	
Dan	MB I	38	38	13	3:3:1	=
Dan	MB I	42	*40*	13	*3:3:1*	=
Dan	MB I	40	*40*	10	4:4:1	=
Zeror	MB I	37	37	10	3:3:1	=
Zeror	MB I	37	20	*10*	4:2:1	
Zeror	MB I	50	50	10	5:5:1	=
Zeror	MB I	56	39	10	6:4:1	
Zeror	MB I	59	45	10	6:4:1	
Megiddo	MB I	33	33	11	3:3:1	=
Megiddo	MB I	33	13	11	3:1:1	
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Megiddo	MB I	35	35	10	*3:3:1*	=
Megiddo	MB I	40	40	10	4:4:1	=
Megiddo	MB I	53	32	11	5:3:1	3:2
Megiddo	MB I	66	33	11	6:3:1	2:1
Megiddo	MB I	100	33	11	9:3:1	3:1
Pella	MB I	35	35	12	3:3:1	=
Pella	MB I	48	35	10	*4:3:1*	
Pella	MB I	40	40	12	3:3:1	=
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I	50	40	10	5:4:1	
Pella	MB I	70	40	10	7:4:1	
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Alalakh	MB I/II	43	35	*12*	4:3:1	
Burak, el-	MB I/II	40	40	12	3:3:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Ebla	MB I/II	34	32	11	3:3:1	=
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Gerisa	MB I/II	50	40	*12*	4:3:1	
Gerisa	MB I/II	55	40	*12*	*4:3:1*	
Hadidi	MB I/II	34	32	12	3:3:1	
Hadidi	MB I/II	40	40	10	4:4:1	=
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Hazor	MB I/II	50	40		4:3:1	
Hazor	MB I/II	40	30	15	3:2:1	
Hazor	MB I/II	45	30	15	3:2:1	
Ifshar	MB I/II	60	40	11	6:4:1	
Jericho	MB I/II	30	30	10	3:3:1	=
Jericho	MB I/II	31	31	16	2:2:1	=
Jericho	MB I/II	36	31	13	3:3:1	
Jericho	MB I/II	36	31	16	2:2:1	

Table 110 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Jericho	MB I/II	40	32	*12*		
Jericho	MB I/II	41	41	10	4:4:1	=
Jericho	MB I/II	41	30	10	4:3:1	
Jericho	MB I/II	42	36	15	*3:2:1*	
Jericho	MB I/II	50	34	11.5	4:3:1	
Jericho	MB I/II	50	32	11.5	4:3:1	
Jericho	MB I/II	50	50	14	4:4:1	=
Jericho	MB I/II	52	25	10	5:2:1	
Kannas	MB I/II	40	40	10	3:3:1	=
Pella	MB I/II	40	40	8	4:4:1	=
Ajjul	MB II	*30*	*16*	*12*		*2:1*
Ajjul	MB II	36	36	*12*	3:3:1	=
Ajjul	MB II	38	25	13	3:2:1	
Ajjul	MB II	38	37	*12*	3:3:1	=
Ajjul	MB II	50	38	*12*	4:3:1	
Ajjul	MB II	53	40	*13*	5:3:1	
Ajjul	MB II	56	36	*12*	5:3:1	
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Alalakh	MB II	62	42	15	4:3:1	3:2
Ashkelon	MB II	50	36	10	5:3:1	
Ashkelon	MB II	38	38	10	4:4:1	=
Beit Mirsim	MB II	70	70	*12*	6:6:1	=
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Beth Shemesh	MB II	50	40	14	5:4:1	
Carchemish	MB II	40	38	13	3:3:1	
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Kitan	MB II					=
Lachish	MB II	15	10	5	3:2:1	
Lachish	MB II	30	30	11	3:3:1	=
Lachish	MB II	35	35	11	3:3:1	=
Lachish	MB II	50	25	*12*	4:2:1	2:1
Lachish	MB II	57	42	12	*5:4:1*	
Lachish	MB II	56	40	20	*3:2:1*	
Lachish	MB II	56	35	11	5:3:1	
Pella	MB II	23	18	14		
Pella	MB II	35	32	12	3:3:1	=
Pella	MB II	55	38	12	*4:3:1*	
Shechem	MB II	36	36	16	2:2:1	=
Shechem	MB II	40	40	15	3:3:1	=
Shechem	MB II	55		12		
Timnah	MB II	30		11	3:1	
Timnah	MB II	50	50	*12*	4:4:1	=
Timnah	MB II	60	30	11	6:3:1	
Timnah	MB II	75	50	20	*4:3:1*	
Timnah	MB II	75	50	*12*	6:4:1	3:2
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Beth Shean	MB II-III	50	40	*12*	4:3:1	
Beth Shean	MB II-III	55	45	*12*	5:4:1	
Deir Alla	MB II-III	60	40	11	6:4:1	3:2
Nimrin	MB II-III	40	40	16	3:3:1	=
Alalakh	LB	26	26	5.5	5:5:1	=
Alalakh	LB	70	42			5:3
Beth Shean	LB	52	36	16	3:2:1	
Carchemish	LB	37	37	10.5	3:3:1	=
Deir Alla	LB	56	40	10	5:4:1	
Hamidi	LB	40	40	10	4:4:1	
Pella	LB	40	35	10		
Qatna	LB	38	38	15		=

By length

Table 111. Mud-brick dimensions organized by length.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Bderi	EB	20	20	*10*	*2:2:1*	=
Lachish	MB II	15	10	5	3:2:1	
Pella	EB	18	15	11		
Hadidi	EB	22	11	10	2:1:1	
Pella	MB II	23	18	14		
Aphek	MB I	25	20	*12*		
Pella	EB	25	25	10	*2:2:1*	=
Alalakh	LB	26	26	5.5	5:5:1	=
Ajjul	MB II	*30*	*16*	*12*		*2:1*
Alalakh	EB II-III	30	23	*10*	3:2:1	
Beth Yerah	EB	30	25	10	*3:2:1*	
Jericho	MB I/II	30	30	10	3:3:1	=
Lachish	MB II	30	30	11	3:3:1	=
Timnah	MB II	30		11	3:1	
Jericho	MB I/II	31	31	16	2:2:1	=
Jidle	EB	32	16	17	2:1:1	
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Ashkelon	MB I	32	32	11	3:3:1	=
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Megiddo	MB I	33	13	11	3:1:1	
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Megiddo	MB I	33	33	11	3:3:1	=
Beit Mirsim	MB I	34	16	*12*		2:1
Alalakh	EB I	34	27	*10*	3:3:1	
Ebla	MB I/II	34	32	11	3:3:1	=
Hadidi	MB I/II	34	32	12	3:3:1	
Carchemish	MB	35	26	11	3:2:1	
Pella	MB II	35	32	12	3:3:1	=
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=
Lachish	MB II	35	35	11	3:3:1	=
Megiddo	MB I	35	35	10	*3:3:1*	=
Pella	MB I	35	35	12	3:3:1	=
Qatna	MB	35	35	11	3:3:1	=
Alalakh	EB II-III	36	7.5	*10*	3:1:1	
Jericho	MB I/II	36	31	13	3:3:1	
Jericho	MB I/II	36	31	16	2:2:1	
Jericho	EB	36	32	15	*2:2:1*	
Taya	EB	36	32	10	3:3:1	=
Ajjul	MB II	36	36	*12*	3:3:1	=
Shechem	MB II	36	36	16	2:2:1	=
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Zeror	MB I	37	20	*10*	4:2:1	
Carchemish	LB	37	37	10.5	3:3:1	=
Zeror	MB I	37	37	10	3:3:1	=
Ajjul	MB II	38	25	13	3:2:1	
Ajjul	MB II	38	37	*12*	3:3:1	=
Pella	MB	38	37	10	*3:3:1*	=
Ashkelon	MB II	38	38	10	4:4:1	=
Dan	MB I	38	38	13	3:3:1	=

Table 111 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Qatna	LB	38	38	15		=
Alalakh	EB IV	39		7.5	5:1	
Arqa	EB IV	40	18	*10*		2:1
Aphek	MB I	40	20	12	3:2:1	2:1
Arqa	EB IV	40	20	10	4:2:1	2:1
Jericho	EB	40	24	7	*6:3:1*	
Jericho	EB	40	28	8	*5:4:1*	
Beth Yerah	EB	40	30	10	4:3:1	
Beth Yerah	EB	40	30	10	4:3:1	
Hazor	MB I/II	40	30	15	3:2:1	
Jericho	MB I/II	40	32	*12*		
Ashkelon	MB I	40	35	10	4:3:1	
Pella	LB	40	35	10		
Pella	EB	40	36	10	*4:3:1*	
Carchemish	MB II	40	38	13	3:3:1	
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	MB	40	40	*12*	4:4:1	=
Burak, el-	MB I/II	40	40	12	3:3:1	=
Dan	MB I	40	*40*	10	4:4:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Hadidi	MB I/II	40	40	10	4:4:1	=
Hamidi	LB	40	40	10	4:4:1	
Kannas	MB I/II	40	40	10	3:3:1	=
Megiddo	MB I	40	40	10	4:4:1	=
Nimrin	MB II-III	40	40	16	3:3:1	=
Pella	MB I	40	40	12	3:3:1	=
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I/II	40	40	8	4:4:1	=
Shechem	MB II	40	40	15	3:3:1	=
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Jericho	MB I/II	41	30	10	4:3:1	
Jericho	MB I/II	41	41	10	4:4:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Carchemish	MB	42	21	13	*3:2:1*	2:1
Carchemish	MB	42	35	*12*	4:3:1	
Jericho	EB	42	36	16	*3:2:1*	
Jericho	MB I/II	42	36	15	*3:2:1*	
Dan	MB I	42	*40*	13	*3:3:1*	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Jericho	EB	43	29	7	6:4:1	
Alalakh	MB I/II	43	35	*12*	4:3:1	
Alalakh	EB I	43	39	*10*	4:4:1	=
Alalakh	EB II-III	43	43	9	5:5:1	=
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Jidle	EB	44	44	14	3:3:1	=
Pella	EB	45	25	7	*6:3:1*	2:1
Hazor	MB I/II	45	30	15	3:2:1	
Ashkelon	MB I	45	33	12	4:3:1	
Pella	EB II	46		7.5		

Table 111 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Hesi, el-	EB	48	21	12	4:2:1	
Hesi, el-	EB	48	31	12	4:3:1	
Ashkelon	MB I	48	33	12	4:3:1	
Pella	MB I	48	35	10	*4:3:1*	
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Carchemish	MB	49.5	20	9.5	5:2:1	
Arqa	EB IV	50	20	*10*	5:2:1	
Arqa	EB IV	50	25	12	4:2:1	2:1
Lachish	MB II	50	25	*12*	4:2:1	2:1
Alalakh	EB II-III	50	29	*10*	5:3:1	
Arqa	EB IV	50	30	7	7:4:1	5:3
Jericho	MB I/II	50	32	11.5	4:3:1	
Ashkelon	MB I	50	33	11	4:3:1	
Jericho	MB I/II	50	34	11.5	4:3:1	
Ashkelon	MB II	50	36	10	5:3:1	
Ajjul	MB II	50	38	*12*	4:3:1	
Alalakh	EB I	50	40	*10*	5:4:1	
Beth Shean	MB II-III	50	40	*12*	4:3:1	
Beth Shemesh	MB II	50	40	14	5:4:1	
Gerisa	MB I/II	50	40	*12*	4:3:1	
Hazor	MB I/II	50	40		4:3:1	
Pella	MB I	50	40	10	5:4:1	
Sweyhat, es-	EB	50	40	10	5:4:1	
Alalakh	EB I	50	44	*10*	5:4:1	
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Jericho	MB I/II	50	50	14	4:4:1	=
Timnah	MB II	50	50	*12*	4:4:1	=
Zeror	MB I	50	50	10	5:5:1	=
Ashkelon	MB I	51	34	13	4:3:1	
Jericho	MB I/II	52	25	10	5:2:1	
Beth Shean	LB	52	36	16	3:2:1	
Alalakh	EB I	52	52	*10*	5:5:1	=
Megiddo	MB I	53	32	11	5:3:1	3:2
Ajjul	MB II	53	40	*13*	5:3:1	
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Arqa	EB IV	55	35	12	5:3:1	
Pella	MB II	55	38	12	*4:3:1*	
Gerisa	MB I/II	55	40	*12*	*4:3:1*	
Beth Shean	MB II-III	55	45	*12*	5:4:1	
Shechem	MB II	55		12		
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Lachish	MB II	56	35	11	5:3:1	
Ajjul	MB II	56	36	*12*	5:3:1	
Zeror	MB I	56	39	10	6:4:1	
Deir Alla	LB	56	40	10	5:4:1	
Lachish	MB II	56	40	20	*3:2:1*	
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Hesi, el-	EB	57	31	11	5:3:1	
Dan	MB I	57	38	14	*4:3:1*	
Lachish	MB II	57	42	12	*5:4:1*	
Zeror	MB I	59	45	10	6:4:1	
Timnah	MB II	60	30	11	6:3:1	
Deir Alla	MB II-III	60	40	11	6:4:1	3:2

Table 111 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Ifshar	MB I/II	60	40	11	6:4:1	
Alalakh	MB II	62	42	15	4:3:1	3:2
Megiddo	MB I	66	33	11	6:3:1	2:1
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Pella	MB I	70	40	10	7:4:1	
Alalakh	LB	70	42			5:3
Beit Mirsim	MB II	70	70	*12*	6:6:1	=
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Timnah	MB II	75	50	20	*4:3:1*	
Timnah	MB II	75	50	*12*	6:4:1	3:2
Megiddo	MB I	100	33	11	9:3:1	3:1

By width

Table 112. Mud-brick dimensions organized by width.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Bderi	EB	20	20	*10*	*2:2:1*	=
Alalakh	EB II-III	36	7.5	*10*	3:1:1	
Lachish	MB II	15	10	5	3:2:1	
Hadidi	EB	22	11	10	2:1:1	
Megiddo	MB I	33	13	11	3:1:1	
Pella	EB	18	15	11		
Ajjul	MB II	*30*	*16*	*12*		*2:1*
Jidle	EB	32	16	17	2:1:1	
Beit Mirsim	MB I	34	16	*12*		2:1
Pella	MB II	23	18	14		
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Arqa	EB IV	40	18	*10*		2:1
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Aphek	MB I	25	20	*12*		
Zeror	MB I	37	20	*10*	4:2:1	
Aphek	MB I	40	20	12	3:2:1	2:1
Arqa	EB IV	40	20	10	4:2:1	2:1
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Carchemish	MB	49.5	20	9.5	5:2:1	
Arqa	EB IV	50	20	*10*	5:2:1	
Carchemish	MB	42	21	13	*3:2:1*	2:1
Hesi, el-	EB	48	21	12	4:2:1	
Alalakh	EB II-III	30	23	*10*	3:2:1	
Jericho	EB	40	24	7	*6:3:1*	
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Pella	EB	25	25	10	*2:2:1*	=
Beth Yerah	EB	30	25	10	*3:2:1*	
Ajjul	MB II	38	25	13	3:2:1	
Pella	EB	45	25	7	*6:3:1*	2:1
Arqa	EB IV	50	25	12	4:2:1	2:1
Lachish	MB II	50	25	*12*	4:2:1	2:1
Jericho	MB I/II	52	25	10	5:2:1	
Alalakh	LB	26	26	5.5	5:5:1	=
Carchemish	MB	35	26	11	3:2:1	
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Alalakh	EB I	34	27	*10*	3:3:1	
Jericho	EB	40	28	8	*5:4:1*	
Jericho	EB	43	29	7	6:4:1	
Alalakh	EB II-III	50	29	*10*	5:3:1	
Jericho	MB I/II	30	30	10	3:3:1	=
Lachish	MB II	30	30	11	3:3:1	=
Beth Yerah	EB	40	30	10	4:3:1	
Beth Yerah	EB	40	30	10	4:3:1	
Hazor	MB I/II	40	30	15	3:2:1	
Jericho	MB I/II	41	30	10	4:3:1	
Hazor	MB I/II	45	30	15	3:2:1	
Arqa	EB IV	50	30	7	7:4:1	5:3
Timnah	MB II	60	30	11	6:3:1	
Jericho	MB I/II	31	31	16	2:2:1	=
Jericho	MB I/II	36	31	13	3:3:1	
Jericho	MB I/II	36	31	16	2:2:1	
Hesi, el-	EB	48	31	12	4:3:1	
Hesi, el-	EB	57	31	11	5:3:1	
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Ashkelon	MB I	32	32	11	3:3:1	=
Ebla	MB I/II	34	32	11	3:3:1	=

Table 112 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Hadidi	MB I/II	34	32	12	3:3:1	
Pella	MB II	35	32	12	3:3:1	=
Jericho	EB	36	32	15	*2:2:1*	
Taya	EB	36	32	10	3:3:1	=
Jericho	MB I/II	40	32	*12*		
Jericho	MB I/II	50	32	11.5	4:3:1	
Megiddo	MB I	53	32	11	5:3:1	3:2
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Megiddo	MB I	33	33	11	3:3:1	=
Ashkelon	MB I	45	33	12	4:3:1	
Ashkelon	MB I	48	33	12	4:3:1	
Ashkelon	MB I	50	33	11	4:3:1	
Megiddo	MB I	66	33	11	6:3:1	2:1
Megiddo	MB I	100	33	11	9:3:1	3:1
Jericho	MB I/II	50	34	11.5	4:3:1	
Ashkelon	MB I	51	34	13	4:3:1	
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=
Lachish	MB II	35	35	11	3:3:1	=
Megiddo	MB I	35	35	10	*3:3:1*	=
Pella	MB I	35	35	12	3:3:1	=
Qatna	MB	35	35	11	3:3:1	=
Ashkelon	MB I	40	35	10	4:3:1	
Pella	LB	40	35	10		
Carchemish	MB	42	35	*12*	4:3:1	
Alalakh	MB I/II	43	35	*12*	4:3:1	
Pella	MB I	48	35	10	*4:3:1*	
Arqa	EB IV	55	35	12	5:3:1	
Lachish	MB II	56	35	11	5:3:1	
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Ajjul	MB II	36	36	*12*	3:3:1	=
Shechem	MB II	36	36	16	2:2:1	=
Pella	EB	40	36	10	*4:3:1*	
Jericho	EB	42	36	16	*3:2:1*	
Jericho	MB I/II	42	36	15	*3:2:1*	
Ashkelon	MB II	50	36	10	5:3:1	
Beth Shean	LB	52	36	16	3:2:1	
Ajjul	MB II	56	36	*12*	5:3:1	
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Carchemish	LB	37	37	10.5	3:3:1	=
Zeror	MB I	37	37	10	3:3:1	=
Ajjul	MB II	38	37	*12*	3:3:1	=
Pella	MB	38	37	10	*3:3:1*	=
Ashkelon	MB II	38	38	10	4:4:1	=
Dan	MB I	38	38	13	3:3:1	=
Qatna	LB	38	38	15		=
Carchemish	MB II	40	38	13	3:3:1	
Ajjul	MB II	50	38	*12*	4:3:1	
Pella	MB II	55	38	12	*4:3:1*	
Dan	MB I	57	38	14	*4:3:1*	
Alalakh	EB I	43	39	*10*	4:4:1	=
Zeror	MB I	56	39	10	6:4:1	
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	MB	40	40	*12*	4:4:1	=
Burak, el-	MB I/II	40	40	12	3:3:1	=
Dan	MB I	40	*40*	10	4:4:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Hadidi	MB I/II	40	40	10	4:4:1	=
Hamidi	LB	40	40	10	4:4:1	
Kannas	MB I/II	40	40	10	3:3:1	=

Table 112 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Megiddo	MB I	40	40	10	4:4:1	=
Nimrin	MB II-III	40	40	16	3:3:1	=
Pella	MB I	40	40	12	3:3:1	=
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I/II	40	40	8	4:4:1	=
Shechem	MB II	40	40	15	3:3:1	=
Dan	MB I	42	*40*	13	*3:3:1*	=
Alalakh	EB I	50	40	*10*	5:4:1	
Beth Shean	MB II-III	50	40	*12*	4:3:1	
Beth Shemesh	MB II	50	40	14	5:4:1	
Gerisa	MB I/II	50	40	*12*	4:3:1	
Hazor	MB I/II	50	40		4:3:1	
Pella	MB I	50	40	10	5:4:1	
Sweyhat, es-	EB	50	40	10	5:4:1	
Ajjul	MB II	53	40	*13*	5:3:1	
Gerisa	MB I/II	55	40	*12*	*4:3:1*	
Deir Alla	LB	56	40	10	5:4:1	
Lachish	MB II	56	40	20	*3:2:1*	
Deir Alla	MB II-III	60	40	11	6:4:1	3:2
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Ifshar	MB I/II	60	40	11	6:4:1	
Pella	MB I	70	40	10	7:4:1	
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Jericho	MB I/II	41	41	10	4:4:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Lachish	MB II	57	42	12	*5:4:1*	
Alalakh	MB II	62	42	15	4:3:1	3:2
Alalakh	LB	70	42			5:3
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	EB II-III	43	43	9	5:5:1	=
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Jidle	EB	44	44	14	3:3:1	=
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB I	50	44	*10*	5:4:1	
Beth Shean	MB II-III	55	45	*12*	5:4:1	
Zeror	MB I	59	45	10	6:4:1	
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Jericho	MB I/II	50	50	14	4:4:1	=
Timnah	MB II	50	50	*12*	4:4:1	=
Zeror	MB I	50	50	10	5:5:1	=
Timnah	MB II	75	50	20	*4:3:1*	
Timnah	MB II	75	50	*12*	6:4:1	3:2
Alalakh	EB I	52	52	*10*	5:5:1	=
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Beit Mirsim	MB II	70	70	*12*	6:6:1	=
Timnah	MB II	30		11	3:1	

By height

Table 113. Mud-brick dimensions organized by height.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Lachish	MB II	15	10	5	3:2:1	
Alalakh	LB	26	26	5.5	5:5:1	=
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Arqa	EB IV	50	30	7	7:4:1	5:3
Jericho	EB	40	24	7	*6:3:1*	
Jericho	EB	43	29	7	6:4:1	
Pella	EB	45	25	7	*6:3:1*	2:1
Alalakh	EB IV	39		7.5	5:1	
Pella	EB II	46		7.5		
Jericho	EB	40	28	8	*5:4:1*	
Pella	MB I/II	40	40	8	4:4:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Alalakh	EB II-III	43	43	9	5:5:1	=
Carchemish	MB	49.5	20	9.5	5:2:1	
Alalakh	EB I	34	27	*10*	3:3:1	
Alalakh	EB I	43	39	*10*	4:4:1	=
Alalakh	EB I	50	44	*10*	5:4:1	
Alalakh	EB I	50	40	*10*	5:4:1	
Alalakh	EB I	52	52	*10*	5:5:1	=
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Alalakh	EB II-III	30	23	*10*	3:2:1	
Alalakh	EB II-III	36	7.5	*10*	3:1:1	
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB II-III	50	29	*10*	5:3:1	
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Arqa	EB IV	40	20	10	4:2:1	2:1
Arqa	EB IV	40	18	*10*		2:1
Arqa	EB IV	50	20	*10*	5:2:1	
Ashkelon	MB I	40	35	10	4:3:1	
Ashkelon	MB II	50	36	10	5:3:1	
Ashkelon	MB II	38	38	10	4:4:1	=
Bderi	EB	20	20	*10*	*2:2:1*	=
Beth Yerah	EB	40	30	10	4:3:1	
Beth Yerah	EB	30	25	10	*3:2:1*	
Beth Yerah	EB	40	30	10	4:3:1	
Dan	MB I	40	*40*	10	4:4:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Deir Alla	LB	56	40	10	5:4:1	
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Hadidi	EB	22	11	10	2:1:1	
Hadidi	MB I/II	40	40	10	4:4:1	=
Hamidi	LB	40	40	10	4:4:1	
Jericho	MB I/II	30	30	10	3:3:1	=
Jericho	MB I/II	41	41	10	4:4:1	=
Jericho	MB I/II	41	30	10	4:3:1	

Table 113 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Jericho	MB I/II	52	25	10	5:2:1	
Kannas	MB I/II	40	40	10	3:3:1	=
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=
Megiddo	MB I	35	35	10	*3:3:1*	=
Megiddo	MB I	40	40	10	4:4:1	=
Pella	EB	25	25	10	*2:2:1*	=
Pella	EB	40	36	10	*4:3:1*	
Pella	LB	40	35	10		
Pella	MB	38	37	10	*3:3:1*	=
Pella	MB I	48	35	10	*4:3:1*	
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I	50	40	10	5:4:1	
Pella	MB I	70	40	10	7:4:1	
Sweyhat, es-	EB	50	40	10	5:4:1	
Taya	EB	36	32	10	3:3:1	=
Zeror	MB I	37	37	10	3:3:1	=
Zeror	MB I	37	20	*10*	4:2:1	
Zeror	MB I	50	50	10	5:5:1	=
Zeror	MB I	56	39	10	6:4:1	
Zeror	MB I	59	45	10	6:4:1	
Carchemish	LB	37	37	10.5	3:3:1	=
Ashkelon	MB I	50	33	11	4:3:1	
Ashkelon	MB I	32	32	11	3:3:1	=
Carchemish	MB	35	26	11	3:2:1	
Deir Alla	MB II-III	60	40	11	6:4:1	3:2
Ebla	MB I/II	34	32	11	3:3:1	=
Hesi, el-	EB	57	31	11	5:3:1	
Ifshar	MB I/II	60	40	11	6:4:1	
Lachish	MB II	30	30	11	3:3:1	=
Lachish	MB II	35	35	11	3:3:1	=
Lachish	MB II	56	35	11	5:3:1	
Megiddo	MB I	33	33	11	3:3:1	=
Megiddo	MB I	33	13	11	3:1:1	
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Megiddo	MB I	53	32	11	5:3:1	3:2
Megiddo	MB I	66	33	11	6:3:1	2:1
Megiddo	MB I	100	33	11	9:3:1	3:1
Pella	EB	18	15	11		
Qatna	MB	35	35	11	3:3:1	=
Timnah	MB II	30		11	3:1	
Timnah	MB II	60	30	11	6:3:1	
Jericho	MB I/II	50	34	11.5	4:3:1	
Jericho	MB I/II	50	32	11.5	4:3:1	
Ajjul	MB II	*30*	*16*	*12*		*2:1*
Ajjul	MB II	36	36	*12*	3:3:1	=
Ajjul	MB II	38	37	*12*	3:3:1	=
Ajjul	MB II	50	38	*12*	4:3:1	
Ajjul	MB II	56	36	*12*	5:3:1	
Alalakh	MB	40	40	*12*	4:4:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Alalakh	MB I/II	43	35	*12*	4:3:1	
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Aphek	MB I	25	20	*12*		
Aphek	MB I	40	20	12	3:2:1	2:1
Arqa	EB IV	50	25	12	4:2:1	2:1
Arqa	EB IV	55	35	12	5:3:1	
Ashkelon	MB I	45	33	12	4:3:1	
Ashkelon	MB I	48	33	12	4:3:1	
Beit Mirsim	MB I	34	16	*12*		2:1
Beit Mirsim	MB II	70	70	*12*	6:6:1	=

Table 113 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Beth Shean	MB II-III	50	40	*12*	4:3:1	
Beth Shean	MB II-III	55	45	*12*	5:4:1	
Burak, el-	MB I/II	40	40	12	3:3:1	=
Carchemish	MB	42	35	*12*	4:3:1	
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Gerisa	MB I/II	50	40	*12*	4:3:1	
Gerisa	MB I/II	55	40	*12*	*4:3:1*	
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Hadidi	MB I/II	34	32	12	3:3:1	
Hesi, el-	EB	48	21	12	4:2:1	
Hesi, el-	EB	48	31	12	4:3:1	
Jericho	MB I/II	40	32	*12*		
Lachish	MB II	50	25	*12*	4:2:1	2:1
Lachish	MB II	57	42	12	*5:4:1*	
Pella	MB I	35	35	12	3:3:1	=
Pella	MB I	40	40	12	3:3:1	=
Pella	MB II	35	32	12	3:3:1	=
Pella	MB II	55	38	12	*4:3:1*	
Shechem	MB II	55		12		
Timnah	MB II	50	50	*12*	4:4:1	=
Timnah	MB II	75	50	*12*	6:4:1	3:2
Ajjul	MB II	38	25	13	3:2:1	
Ajjul	MB II	53	40	*13*	5:3:1	
Ashkelon	MB I	51	34	13	4:3:1	
Carchemish	MB	42	21	13	*3:2:1*	2:1
Carchemish	MB II	40	38	13	3:3:1	
Dan	MB I	38	38	13	3:3:1	=
Dan	MB I	42	*40*	13	*3:3:1*	=
Jericho	MB I/II	36	31	13	3:3:1	
Beth Shemesh	MB II	50	40	14	5:4:1	
Dan	MB I	57	38	14	*4:3:1*	
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Jericho	MB I/II	50	50	14	4:4:1	=
Jidle	EB	44	44	14	3:3:1	=
Pella	MB II	23	18	14		
Alalakh	MB II	62	42	15	4:3:1	3:2
Hazor	MB I/II	40	30	15	3:2:1	
Hazor	MB I/II	45	30	15	3:2:1	
Jericho	EB	36	32	15	*2:2:1*	
Jericho	MB I/II	42	36	15	*3:2:1*	
Qatna	LB	38	38	15		=
Shechem	MB II	40	40	15	3:3:1	=
Beth Shean	LB	52	36	16	3:2:1	
Jericho	EB	42	36	16	*3:2:1*	
Jericho	MB I/II	31	31	16	2:2:1	=
Jericho	MB I/II	36	31	16	2:2:1	
Nimrin	MB II-III	40	40	16	3:3:1	=
Shechem	MB II	36	36	16	2:2:1	=
Jidle	EB	32	16	17	2:1:1	
Lachish	MB II	56	40	20	*3:2:1*	
Timnah	MB II	75	50	20	*4:3:1*	

By ratio

Table 114. Mud-brick dimensions organized by ratio.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Bderi	EB	20	20	*10*	*2:2:1*	=
Hadidi	EB	22	11	10	2:1:1	
Jidle	EB	32	16	17	2:1:1	
Jericho	EB	36	32	15	*2:2:1*	
Jericho	MB I/II	31	31	16	2:2:1	=
Jericho	MB I/II	36	31	16	2:2:1	
Pella	EB	25	25	10	*2:2:1*	=
Shechem	MB II	36	36	16	2:2:1	=
Timnah	MB II	30		11	3:1	
Alalakh	EB II-III	36	7.5	*10*	3:1:1	
Megiddo	MB I	33	13	11	3:1:1	
Ajjul	MB II	38	25	13	3:2:1	
Alalakh	EB II-III	30	23	*10*	3:2:1	
Aphek	MB I	40	20	12	3:2:1	2:1
Beth Shean	LB	52	36	16	3:2:1	
Beth Yerah	EB	30	25	10	*3:2:1*	
Carchemish	MB	35	26	11	3:2:1	
Carchemish	MB	42	21	13	*3:2:1*	2:1
Hazor	MB I/II	40	30	15	3:2:1	
Hazor	MB I/II	45	30	15	3:2:1	
Jericho	EB	42	36	16	*3:2:1*	
Jericho	MB I/II	42	36	15	*3:2:1*	
Lachish	MB II	15	10	5	3:2:1	
Lachish	MB II	56	40	20	*3:2:1*	
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Ajjul	MB II	36	36	*12*	3:3:1	=
Ajjul	MB II	38	37	*12*	3:3:1	=
Alalakh	EB I	34	27	*10*	3:3:1	
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Ashkelon	MB I	32	32	11	3:3:1	=
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Burak, el-	MB I/II	40	40	12	3:3:1	=
Carchemish	LB	37	37	10.5	3:3:1	=
Carchemish	MB II	40	38	13	3:3:1	
Dan	MB I	38	38	13	3:3:1	=
Dan	MB I	42	*40*	13	*3:3:1*	=
Ebla	MB I/II	34	32	11	3:3:1	=
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Hadidi	MB I/II	34	32	12	3:3:1	
Jericho	MB I/II	30	30	10	3:3:1	=
Jericho	MB I/II	36	31	13	3:3:1	
Jidle	EB	44	44	14	3:3:1	=
Kannas	MB I/II	40	40	10	3:3:1	=
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=
Lachish	MB II	30	30	11	3:3:1	=
Lachish	MB II	35	35	11	3:3:1	=
Megiddo	MB I	33	33	11	3:3:1	=
Megiddo	MB I	35	35	10	*3:3:1*	=
Nimrin	MB II-III	40	40	16	3:3:1	=
Pella	MB	38	37	10	*3:3:1*	=
Pella	MB I	35	35	12	3:3:1	=
Pella	MB I	40	40	12	3:3:1	=
Pella	MB II	35	32	12	3:3:1	=
Qatna	MB	35	35	11	3:3:1	=
Shechem	MB II	40	40	15	3:3:1	=

Table 114 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Taya	EB	36	32	10	3:3:1	=
Zeror	MB I	37	37	10	3:3:1	=
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Arqa	EB IV	40	20	10	4:2:1	2:1
Arqa	EB IV	50	25	12	4:2:1	2:1
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Hesi, el-	EB	48	21	12	4:2:1	
Lachish	MB II	50	25	*12*	4:2:1	2:1
Zeror	MB I	37	20	*10*	4:2:1	
Ajjul	MB II	50	38	*12*	4:3:1	
Alalakh	MB I/II	43	35	*12*	4:3:1	
Alalakh	MB II	62	42	15	4:3:1	3:2
Ashkelon	MB I	40	35	10	4:3:1	
Ashkelon	MB I	45	33	12	4:3:1	
Ashkelon	MB I	48	33	12	4:3:1	
Ashkelon	MB I	51	34	13	4:3:1	
Ashkelon	MB I	50	33	11	4:3:1	
Beth Shean	MB II-III	50	40	*12*	4:3:1	
Beth Yerah	EB	40	30	10	4:3:1	
Beth Yerah	EB	40	30	10	4:3:1	
Carchemish	MB	42	35	*12*	4:3:1	
Dan	MB I	57	38	14	*4:3:1*	
Gerisa	MB I/II	50	40	*12*	4:3:1	
Gerisa	MB I/II	55	40	*12*	*4:3:1*	
Hazor	MB I/II	50	40		4:3:1	
Hesi, el-	EB	48	31	12	4:3:1	
Jericho	MB I/II	41	30	10	4:3:1	
Jericho	MB I/II	50	34	11.5	4:3:1	
Jericho	MB I/II	50	32	11.5	4:3:1	
Pella	EB	40	36	10	*4:3:1*	
Pella	MB I	48	35	10	*4:3:1*	
Pella	MB II	55	38	12	*4:3:1*	
Timnah	MB II	75	50	20	*4:3:1*	
Alalakh	EB I	43	39	*10*	4:4:1	=
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	MB	40	40	*12*	4:4:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Ashkelon	MB II	38	38	10	4:4:1	=
Dan	MB I	40	*40*	10	4:4:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Hadidi	MB I/II	40	40	10	4:4:1	=
Hamidi	LB	40	40	10	4:4:1	
Jericho	MB I/II	41	41	10	4:4:1	=
Jericho	MB I/II	50	50	14	4:4:1	=
Megiddo	MB I	40	40	10	4:4:1	=
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I/II	40	40	8	4:4:1	=
Timnah	MB II	50	50	*12*	4:4:1	=
Alalakh	EB IV	39		7.5	5:1	
Arqa	EB IV	50	20	*10*	5:2:1	
Carchemish	MB	49.5	20	9.5	5:2:1	
Jericho	MB I/II	52	25	10	5:2:1	
Ajjul	MB II	53	40	*13*	5:3:1	

Table 114 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Ajjul	MB II	56	36	*12*	5:3:1	
Alalakh	EB II-III	50	29	*10*	5:3:1	
Arqa	EB IV	55	35	12	5:3:1	
Ashkelon	MB II	50	36	10	5:3:1	
Hesi, el-	EB	57	31	11	5:3:1	
Lachish	MB II	56	35	11	5:3:1	
Megiddo	MB I	53	32	11	5:3:1	3:2
Alalakh	EB I	50	44	*10*	5:4:1	
Alalakh	EB I	50	40	*10*	5:4:1	
Beth Shean	MB II-III	55	45	*12*	5:4:1	
Beth Shemesh	MB II	50	40	14	5:4:1	
Deir Alla	LB	56	40	10	5:4:1	
Jericho	EB	40	28	8	*5:4:1*	
Lachish	MB II	57	42	12	*5:4:1*	
Pella	MB I	50	40	10	5:4:1	
Sweyhat, es-	EB	50	40	10	5:4:1	
Alalakh	EB I	52	52	*10*	5:5:1	=
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Alalakh	EB II-III	43	43	9	5:5:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	LB	26	26	5.5	5:5:1	=
Zeror	MB I	50	50	10	5:5:1	=
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Jericho	EB	40	24	7	*6:3:1*	
Megiddo	MB I	66	33	11	6:3:1	2:1
Pella	EB	45	25	7	*6:3:1*	2:1
Timnah	MB II	60	30	11	6:3:1	
Deir Alla	MB II-III	60	40	11	6:4:1	3:2
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Ifshar	MB I/II	60	40	11	6:4:1	
Jericho	EB	43	29	7	6:4:1	
Timnah	MB II	75	50	*12*	6:4:1	3:2
Zeror	MB I	56	39	10	6:4:1	
Zeror	MB I	59	45	10	6:4:1	
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Beit Mirsim	MB II	70	70	*12*	6:6:1	=
Arqa	EB IV	50	30	7	7:4:1	5:3
Pella	MB I	70	40	10	7:4:1	
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Megiddo	MB I	100	33	11	9:3:1	3:1

By sub-ratio

Table 115. Mud-brick dimensions organized by sub-ratio.

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Ajjul	MB II	*30*	*16*	*12*		*2:1*
Alalakh	EB II-III	37	19	10	4:2:1	2:1
Alalakh	EB II-III	43	20	*10*	4:2:1	2:1
Alalakh	EB IV	43	24	*10*	4:2:1	2:1
Aphek	MB I	40	20	12	3:2:1	2:1
Arqa	EB IV	40	20	10	4:2:1	2:1
Arqa	EB IV	40	18	*10*		2:1
Arqa	EB IV	50	25	12	4:2:1	2:1
Beit Mirsim	MB I	34	16	*12*		2:1
Beit Mirsim	MB II	70	35	*12*	6:3:1	2:1
Carchemish	MB	42	21	13	*3:2:1*	2:1
Gezer	MB II	53.4	26.7	*12*	4:2:1	2:1
Hadidi	MB I/II	74	36	14	6:3:1	2:1
Lachish	MB II	50	25	*12*	4:2:1	2:1
Megiddo	MB I	33	18	11	*3:2:1*	*2:1*
Megiddo	MB I	66	33	11	6:3:1	2:1
Pella	EB	45	25	7	*6:3:1*	2:1
Megiddo	MB I	100	33	11	9:3:1	3:1
Alalakh	MB II	62	42	15	4:3:1	3:2
Deir Alla	MB II-III	60	40	11	6:4:1	3:2
Ebla	EB IV	60	40	*10*	*6:4:1*	3:2
Megiddo	MB I	53	32	11	5:3:1	3:2
Timnah	MB II	75	50	*12*	6:4:1	3:2
Alalakh	LB	70	42			5:3
Arqa	EB IV	50	30	7	7:4:1	5:3
Ajjul	MB II	36	36	*12*	3:3:1	=
Ajjul	MB II	38	37	*12*	3:3:1	=
Alalakh	EB I	43	39	*10*	4:4:1	=
Alalakh	EB I	52	52	*10*	5:5:1	=
Alalakh	EB I	55.5	55.5	*10*	5:5:1	=
Alalakh	EB I	56.5	56.5	*10*	5:5:1	=
Alalakh	EB II-III	40.5	40.5	*10*	4:4:1	=
Alalakh	EB II-III	42	42	*10*	4:4:1	=
Alalakh	EB II-III	43	43	9	5:5:1	=
Alalakh	EB II-III	44	44	8.2	5:5:1	=
Alalakh	EB II-III	47	44	*10*	4:4:1	=
Alalakh	EB II-III	48.5	48.5	8.5	6:6:1	=
Alalakh	EB IV	32.5	32.5	7	5:5:1	=
Alalakh	EB IV	40	40	10	4:4:1	=
Alalakh	EB IV	42	42	*10*	4:4:1	=
Alalakh	EB IV	42.5	42.5	*10*	4:4:1	=
Alalakh	EB IV	43.5	43.5	6.5	7:7:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	EB IV	47	47	*10*	5:5:1	=
Alalakh	LB	26	26	5.5	5:5:1	=
Alalakh	MB	40	40	*12*	4:4:1	=
Alalakh	MB I	41.5	41.5	*12*	4:4:1	=
Alalakh	MB I/II	32	32	*12*	3:3:1	=
Alalakh	MB I/II	35	35	*12*	3:3:1	=
Alalakh	MB II	41.5	41.5	*12*	4:4:1	=
Ashkelon	MB I	32	32	11	3:3:1	=
Ashkelon	MB II	38	38	10	4:4:1	=
Bderi	EB	20	20	*10*	*2:2:1*	=
Beit Mirsim	MB II	70	70	*12*	6:6:1	=
Beth Shean	MB II-III	33	27	*12*	3:3:1	=
Burak, el-	MB I/II	40	40	12	3:3:1	=
Carchemish	LB	37	37	10.5	3:3:1	=

Table 115 (cont.).

Site	Period	Length	Width	Height	Ratio	Sub-ratio
Dan	MB I	38	38	13	3:3:1	=
Dan	MB I	42	*40*	13	*3:3:1*	=
Dan	MB I	40	*40*	10	4:4:1	=
Dan	MB I/II	*40*	*40*	10	*4:4:1*	=
Ebla	MB I/II	34	32	11	3:3:1	=
Gerisa	MB I/II	35	35	*12*	3:3:1	=
Gerisa	MB I/II	40	40	*12*	3:3:1	=
Gerisa	MB I/II	50	50	*12*	4:4:1	=
Hadidi	MB I/II	40	40	10	4:4:1	=
Jericho	MB I/II	30	30	10	3:3:1	=
Jericho	MB I/II	31	31	16	2:2:1	=
Jericho	MB I/II	41	41	10	4:4:1	=
Jericho	MB I/II	50	50	14	4:4:1	=
Jidle	EB	44	44	14	3:3:1	=
Kannas	MB I/II	40	40	10	3:3:1	=
Khirbet Iskander	IB	35	35	*10*	*3:3:1*	=
Kitan	MB II					=
Lachish	MB II	30	30	11	3:3:1	=
Lachish	MB II	35	35	11	3:3:1	=
Megiddo	MB I	33	33	11	3:3:1	=
Megiddo	MB I	35	35	10	*3:3:1*	=
Megiddo	MB I	40	40	10	4:4:1	=
Nimrin	MB II-III	40	40	16	3:3:1	=
Pella	EB	25	25	10	*2:2:1*	=
Pella	MB	38	37	10	*3:3:1*	=
Pella	MB I	35	35	12	3:3:1	=
Pella	MB I	40	40	12	3:3:1	=
Pella	MB I	40	40	10	4:4:1	=
Pella	MB I/II	40	40	8	4:4:1	=
Pella	MB II	35	32	12	3:3:1	=
Qatna	LB	38	38	15		=
Qatna	MB	35	35	11	3:3:1	=
Shechem	MB II	36	36	16	2:2:1	=
Shechem	MB II	40	40	15	3:3:1	=
Taya	EB	36	32	10	3:3:1	=
Timnah	MB II	50	50	*12*	4:4:1	=
Zeror	MB I	37	37	10	3:3:1	=
Zeror	MB I	50	50	10	5:5:1	=

Statistical descriptions of mud-brick dimensions

EB bricks

		Site	Region	Period	Length	Width	Height
N	Valid	43	43	43	43	43	43
	Missing	0	0	0	0	0	0
Mean					41.3837	30.2791	10.35
Median					42.0000	30.0000	10.00
Mode					50.00	20.00/b	10
Std. Deviation					9.58349	10.70786	2.100
Variance					91.843	114.658	4.411
Skewness					-.549	.097	1.213
Std. Error of Skewness					.361	.361	.361
Kurtosis					.237	-.450	2.837
Std. Error of Kurtosis					.709	.709	.709
Range					42.00	47.50	11
Minimum					18.00	7.50	7
Maximum					60.00	55.00	17

Table 116. Statistical descriptions of EB bricks. Note that the width is bi-modal.

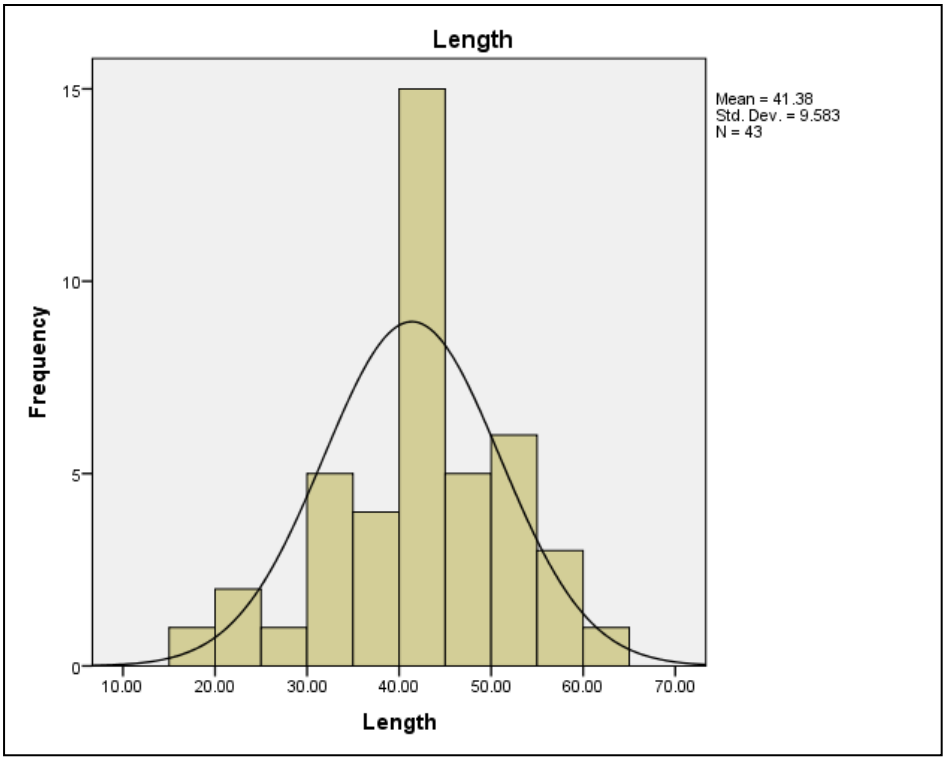

Figure 54. Histogram showing the frequencies of length for EB bricks.

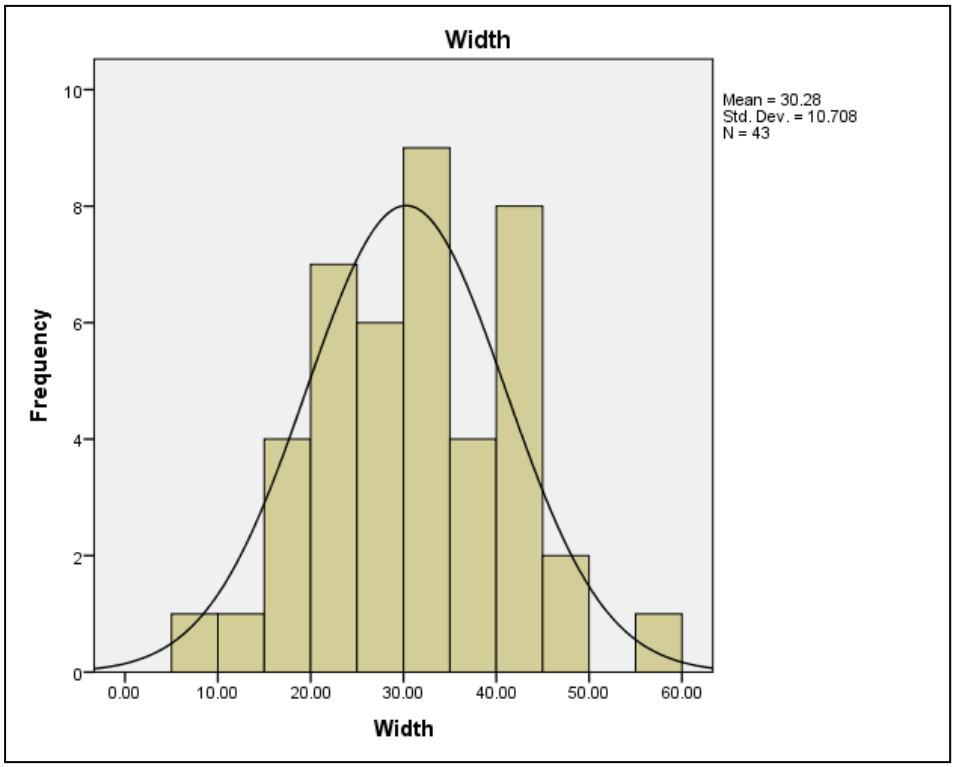

Figure 55. Histogram showing the frequencies of width for EB bricks.

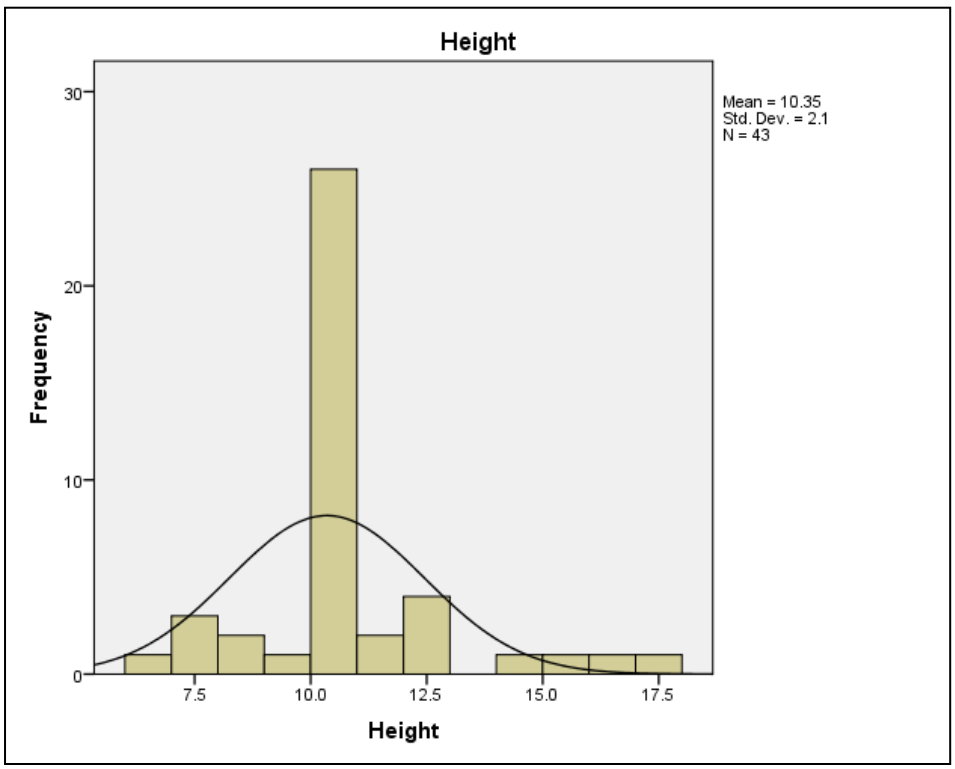

Figure 56. Histogram showing the frequencies of height for EB bricks.

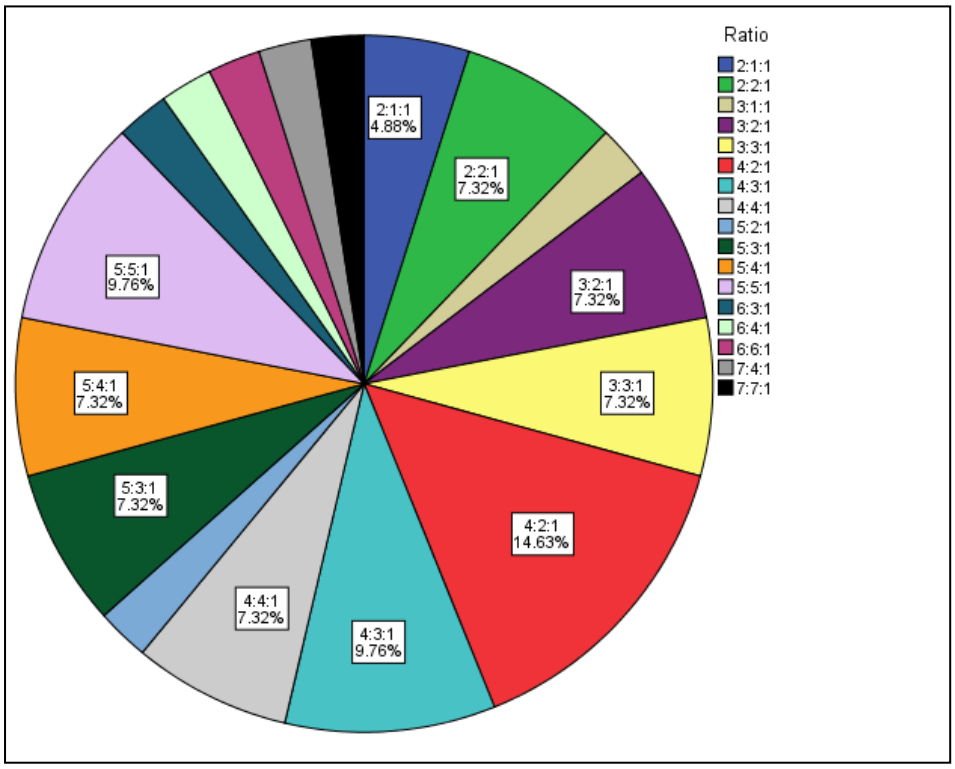

Figure 57. Pie chart showing the percentages of different ratios for EB bricks.

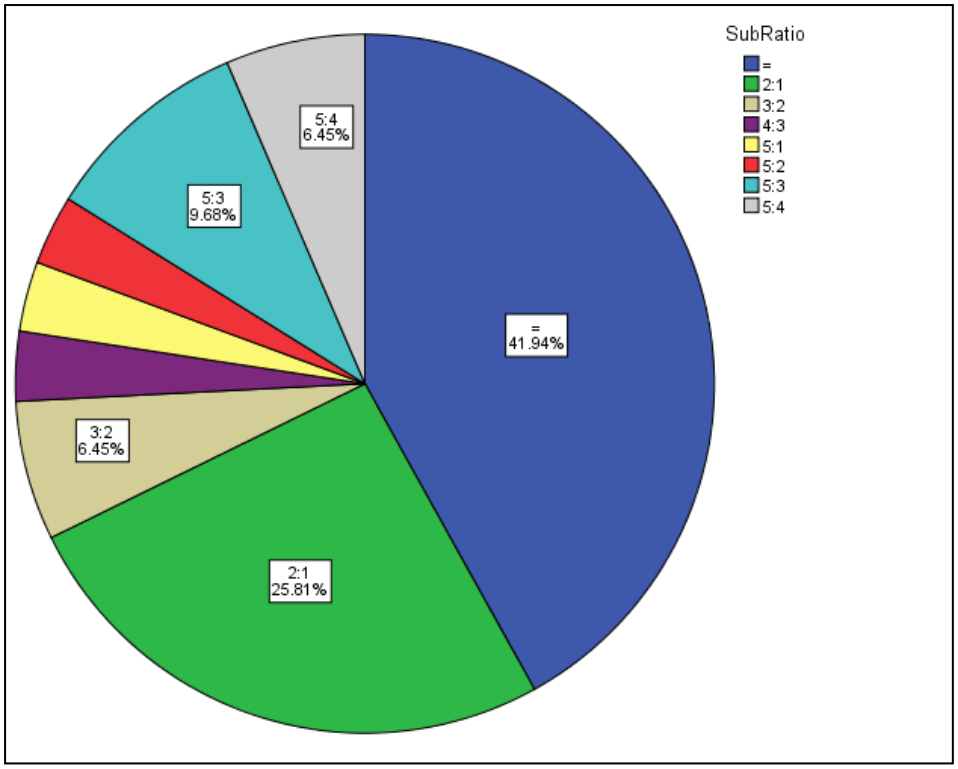

Figure 58. Pie chart showing the percentages of different sub-ratios for EB bricks.

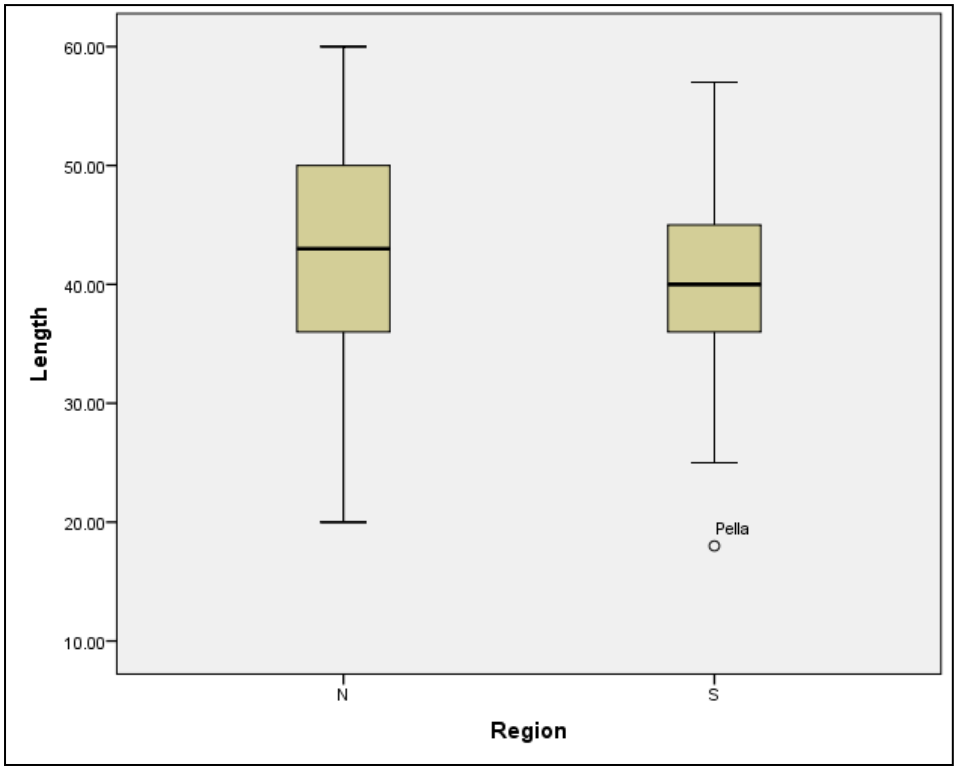

Figure 59. Box-plot showing the difference in brick length between the northern and southern Levant during the EB.

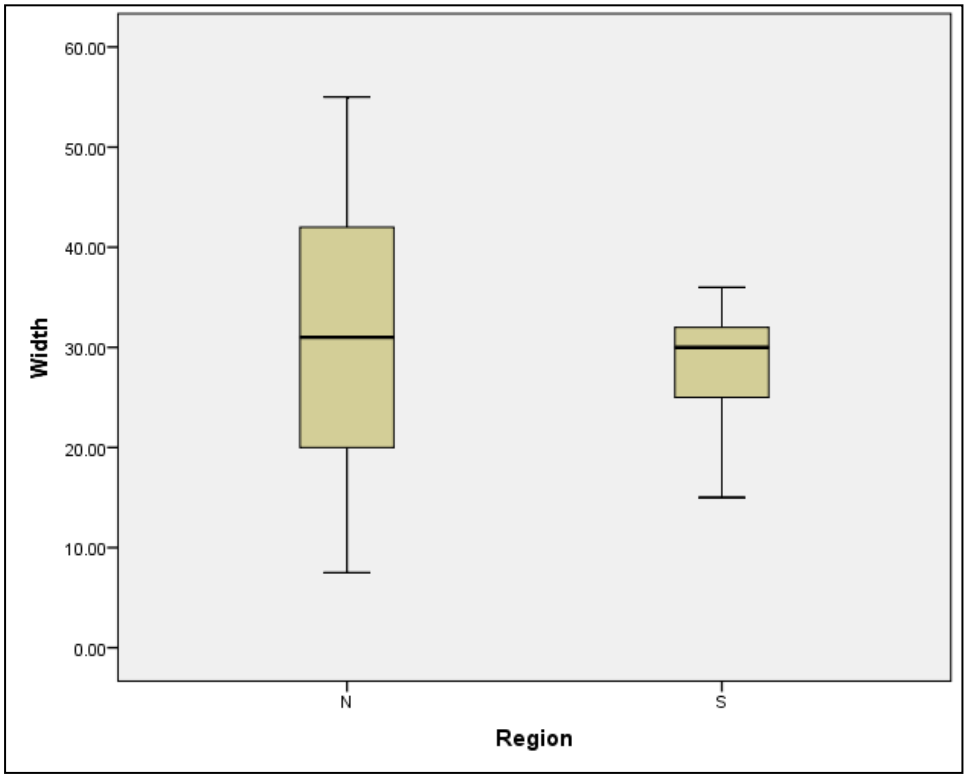

Figure 60. Box-plot showing the difference in brick width between the northern and southern Levant during the EB.

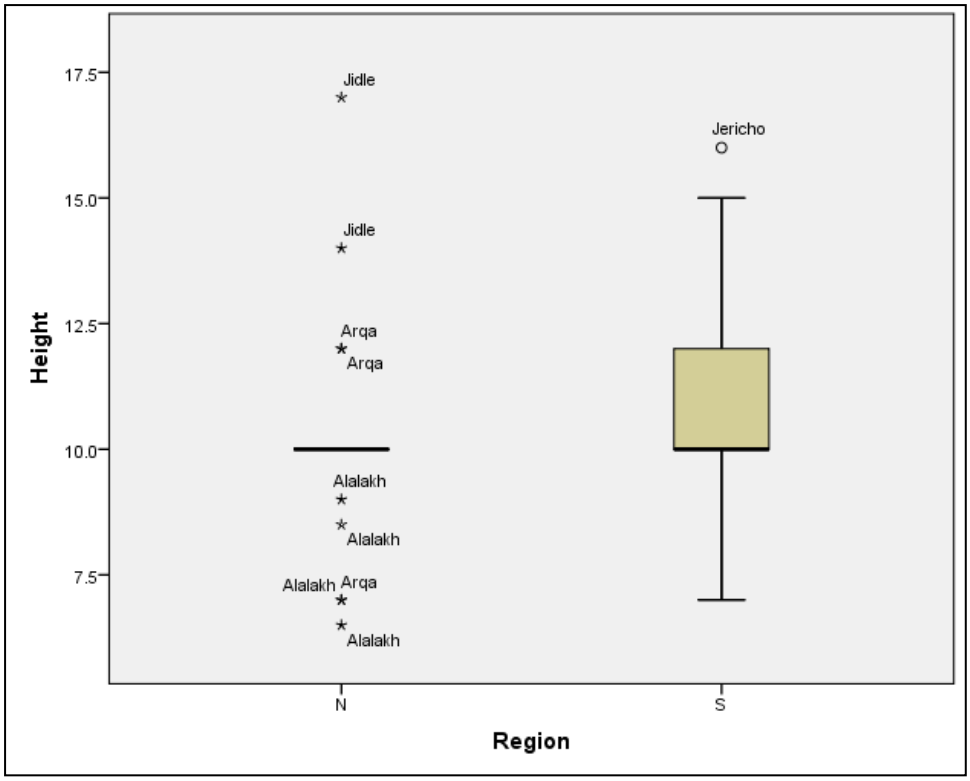

Figure 61. Box-plot showing the difference in brick height between the northern and southern Levant during the EB.

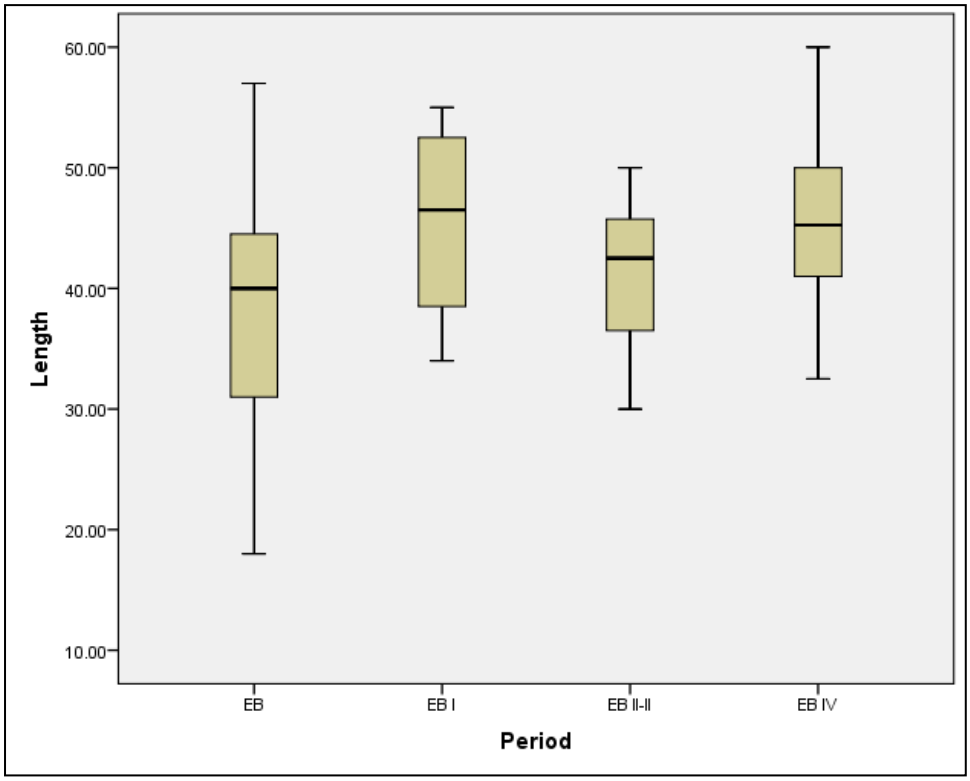

Figure 62. Box-plot showing the difference in brick length between different phases of the EB.

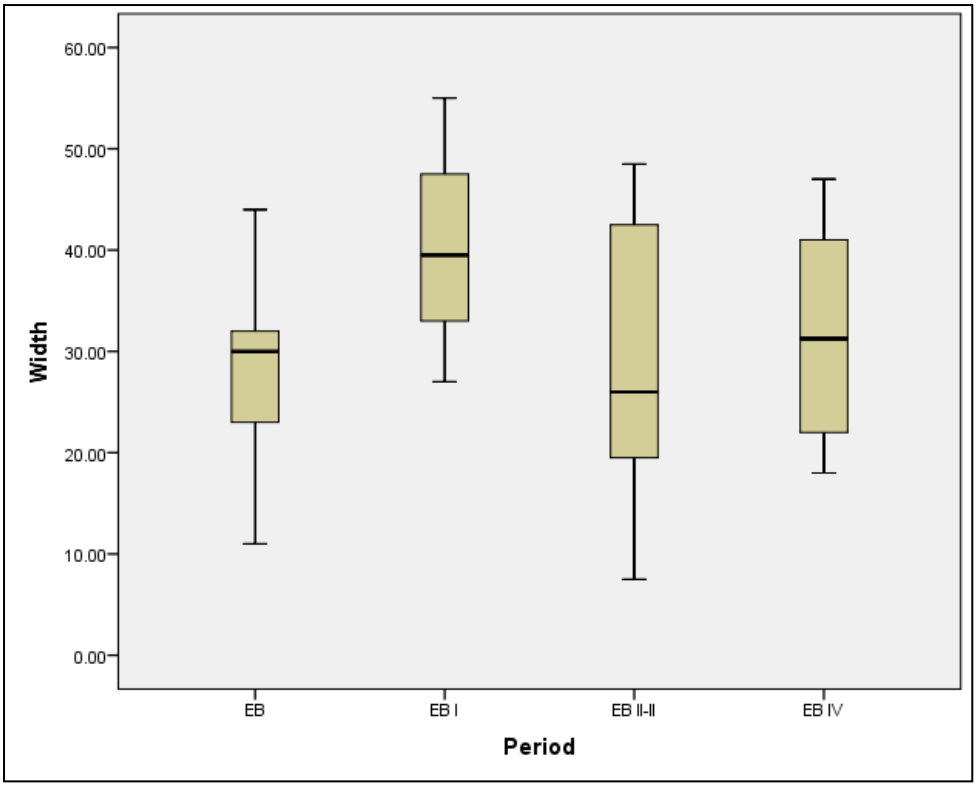

Figure 63. Box-plot showing the difference in brick width between different phases of the EB.

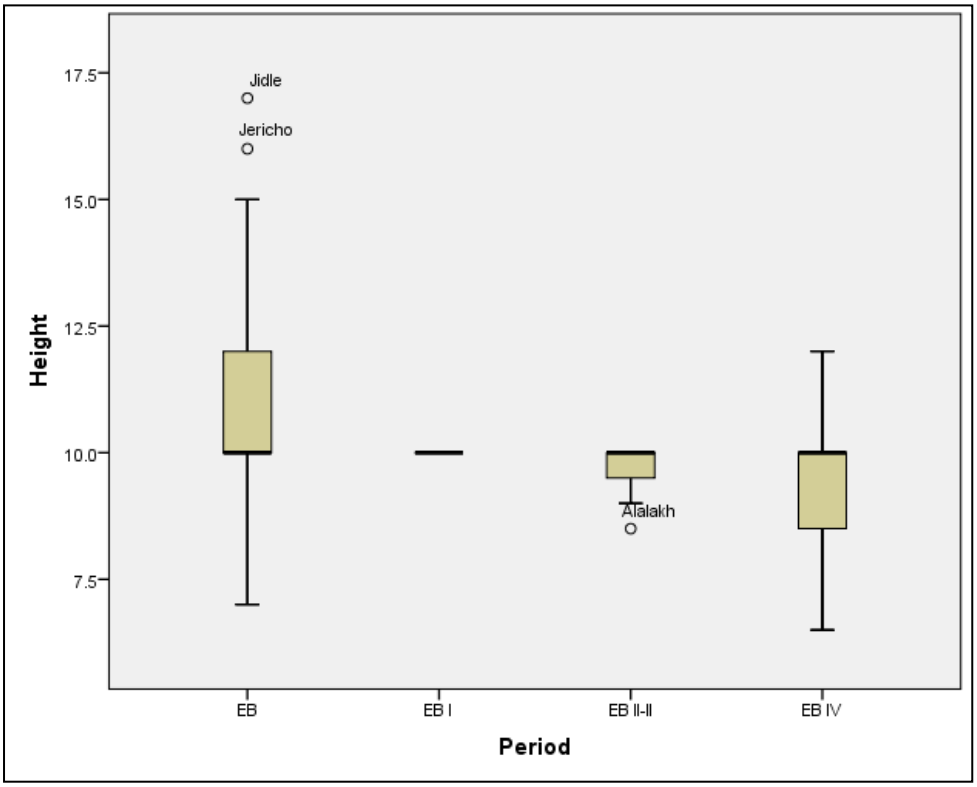

Figure 64. Box-plot showing the difference in brick height between different phases of the EB.

MB bricks

		Site	Region	Period	Length	Width	Height
N	Valid	98	98	98	97	96	97
	Missing	0	0	0	1	2	1
Mean					45.2876	35.1010	11.90
Std. Error of Mean					1.33078	.92891	.209
Median					41.0000	36.0000	12.00
Mode					40.00	40.00	12
Std. Deviation					13.10665	9.10142	2.058
Variance					171.784	82.836	4.234
Skewness					1.094	-.067	1.188
Std. Error of Skewness					.245	.246	.245
Kurtosis					2.429	2.121	4.719
Std. Error of Kurtosis					.485	.488	.485
Range					85.00	60.00	15
Minimum					15.00	10.00	5
Maximum					100.00	70.00	20

Table 117. Statistical descriptions of MB bricks.

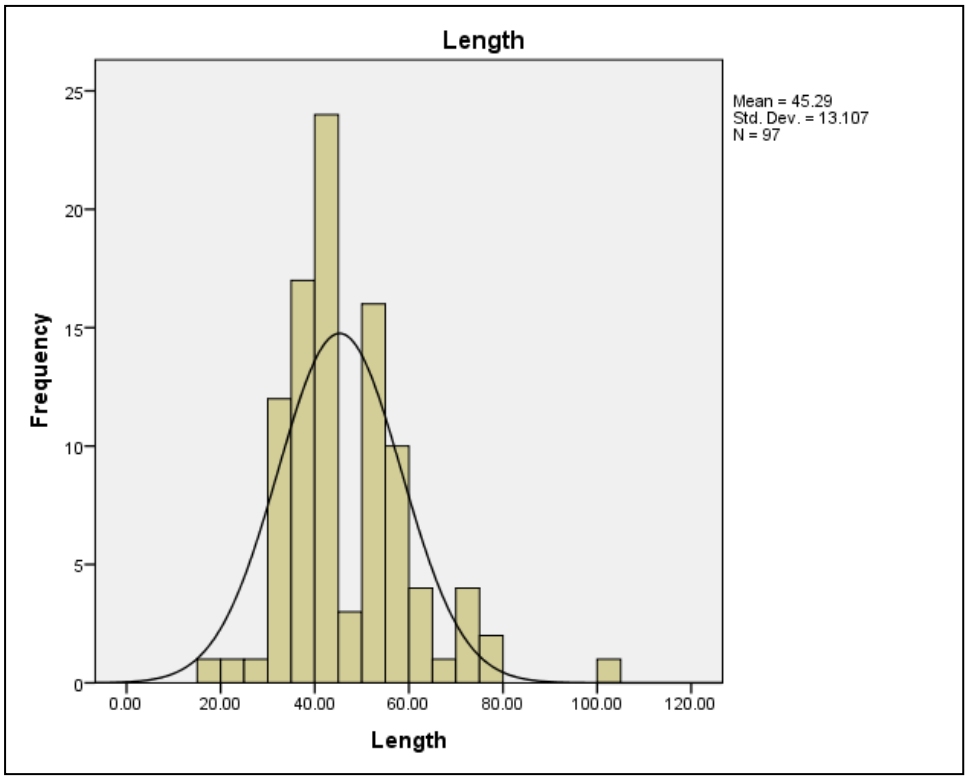

Figure 65. Histogram showing the frequencies of length for MB bricks.

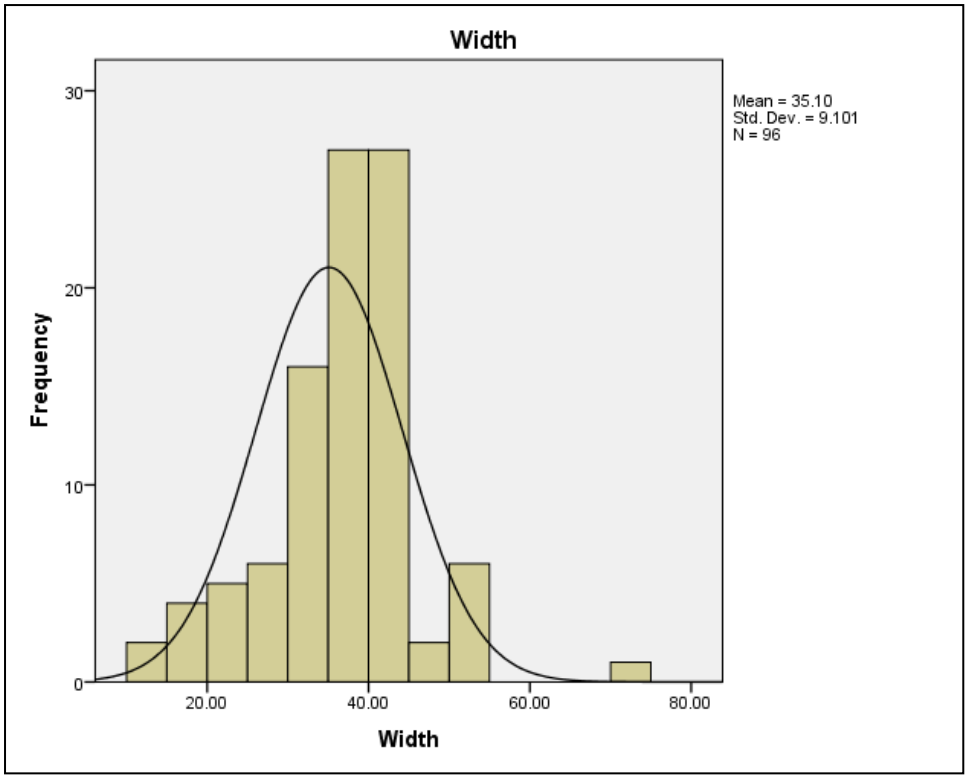

Figure 66. Histogram showing the frequencies of width for MB bricks.

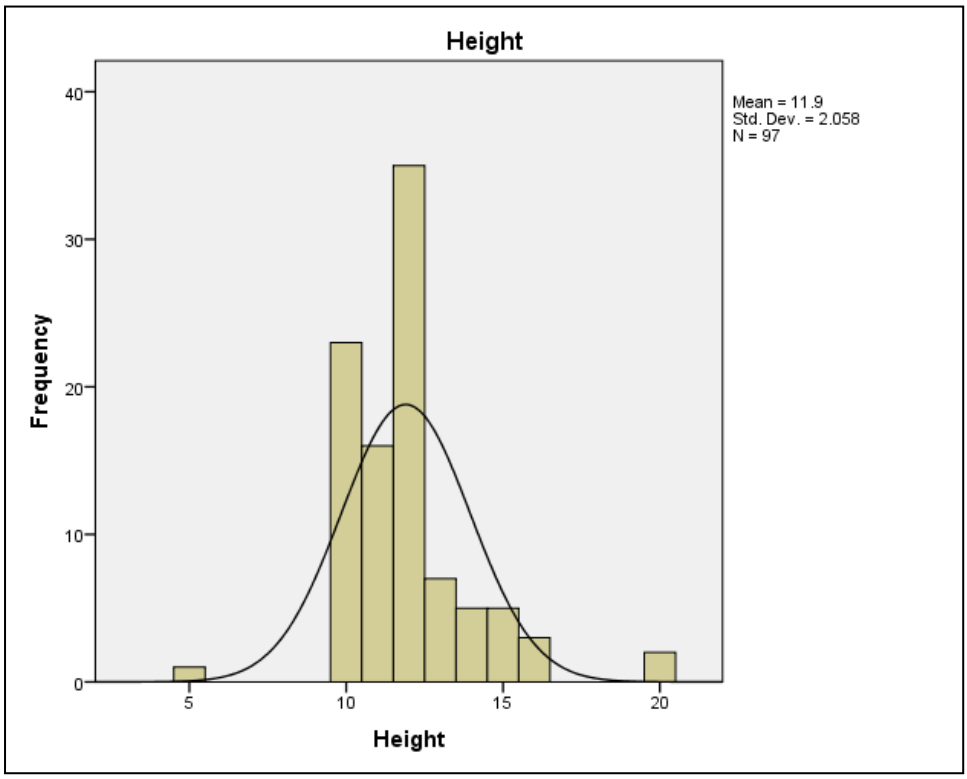

Figure 67. Histogram showing the frequencies of height for MB bricks.

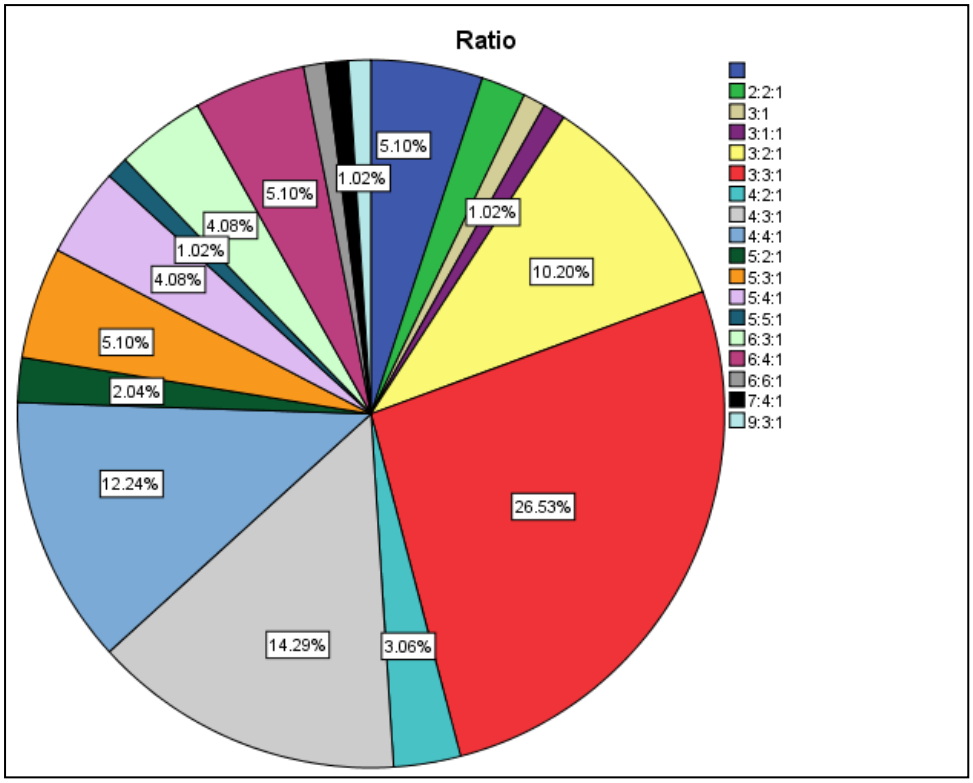

Figure 68. Pie chart showing the percentages of different ratios for MB bricks.

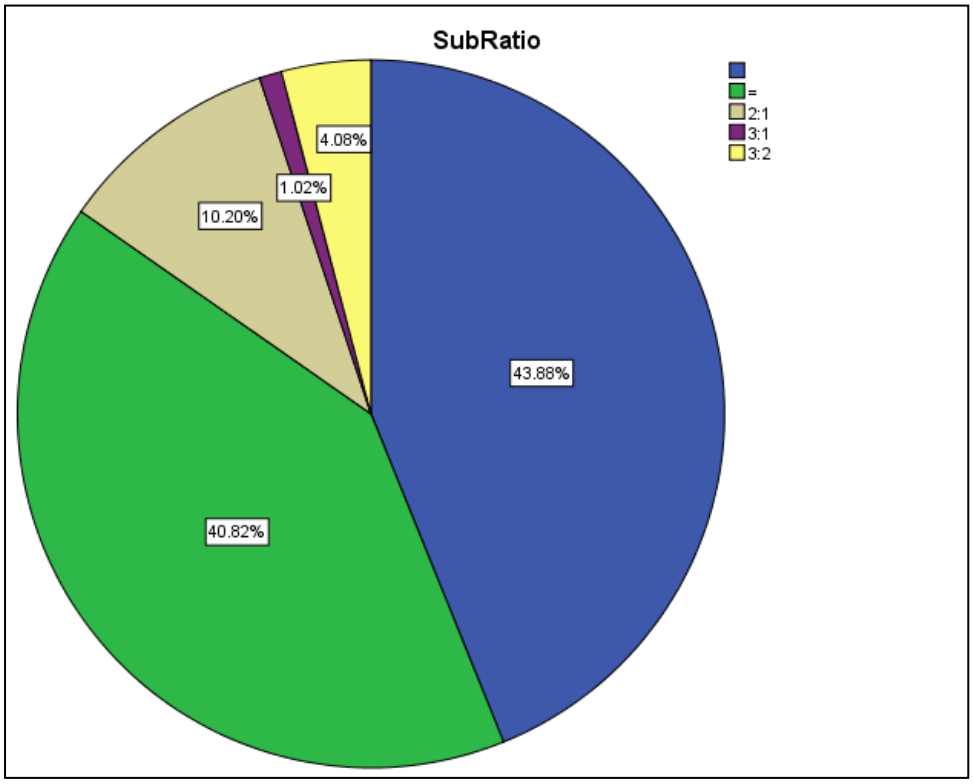

Figure 69. Pie chart showing the percentages of different sub-ratios for MB bricks.

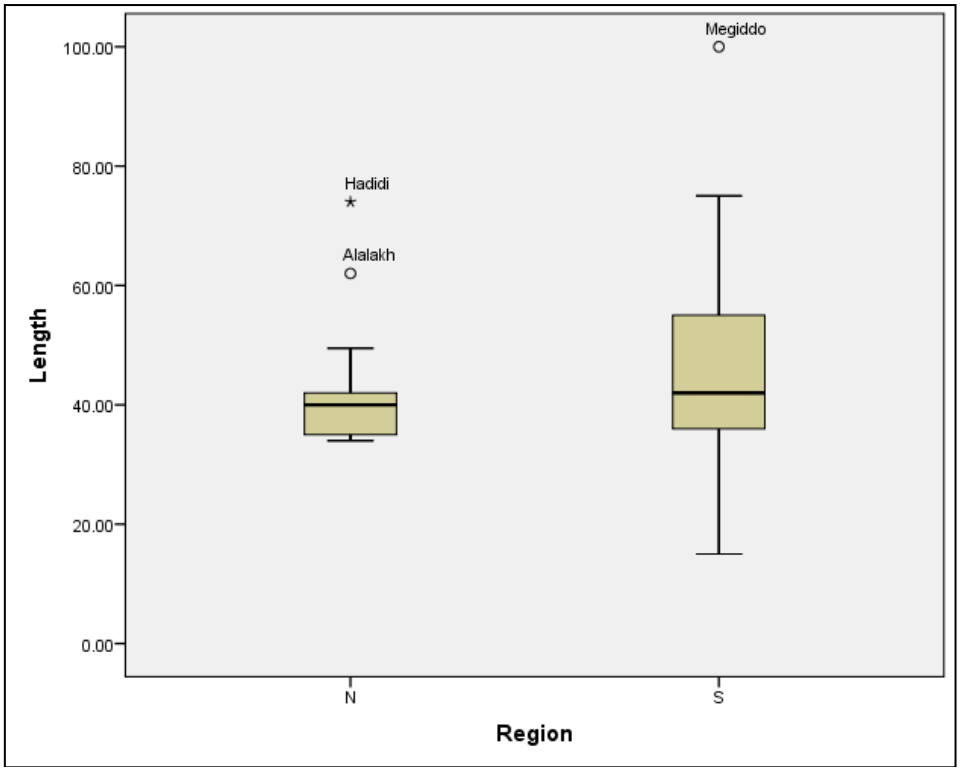

Figure 70. Box-plot showing the difference in brick length between the northern and southern Levant during the MB.

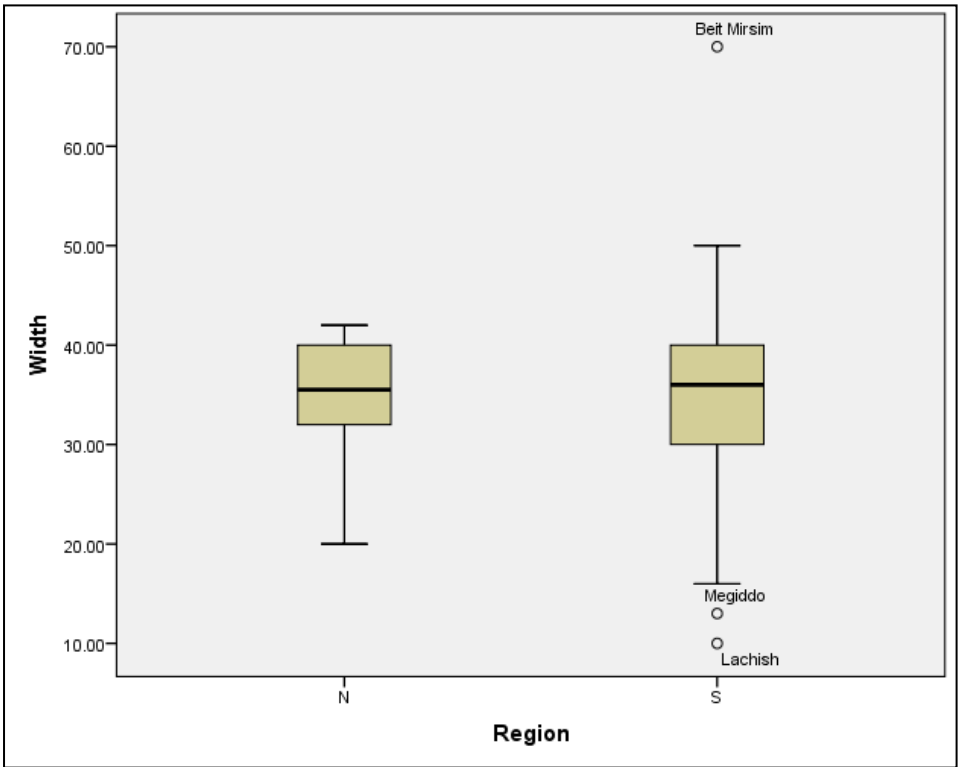

Figure 71. Box-plot showing the difference in brick width between the northern and southern Levant during the MB.

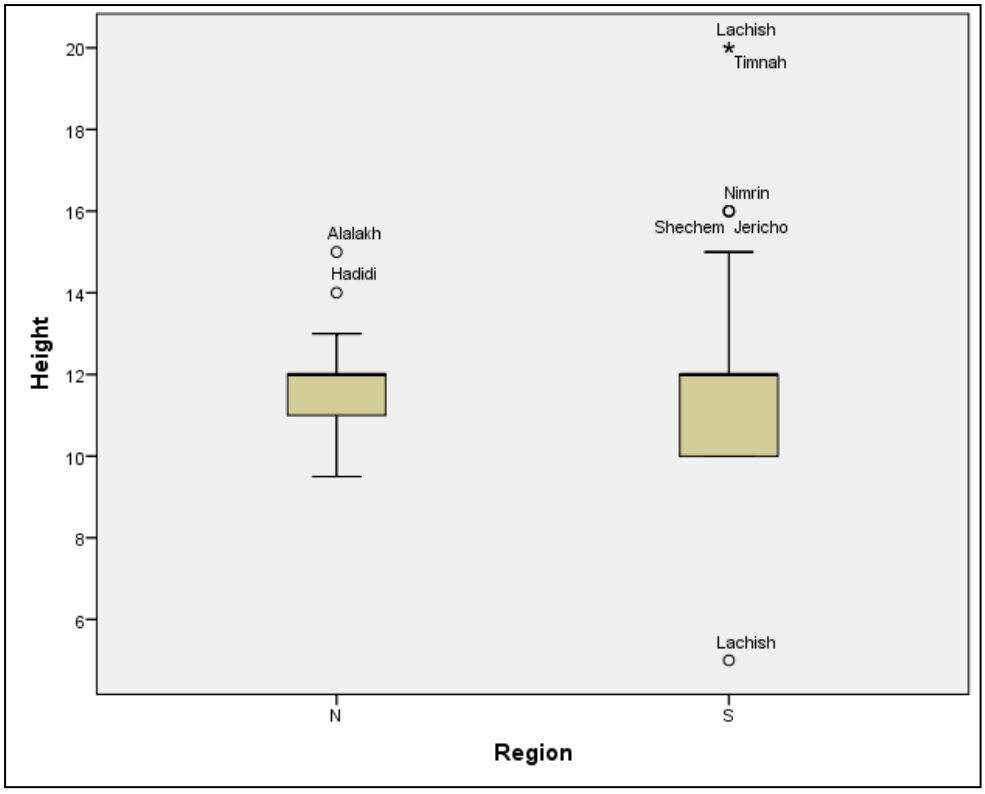

Figure 72. Box-plot showing the difference in brick height between the northern and southern Levant during the MB.

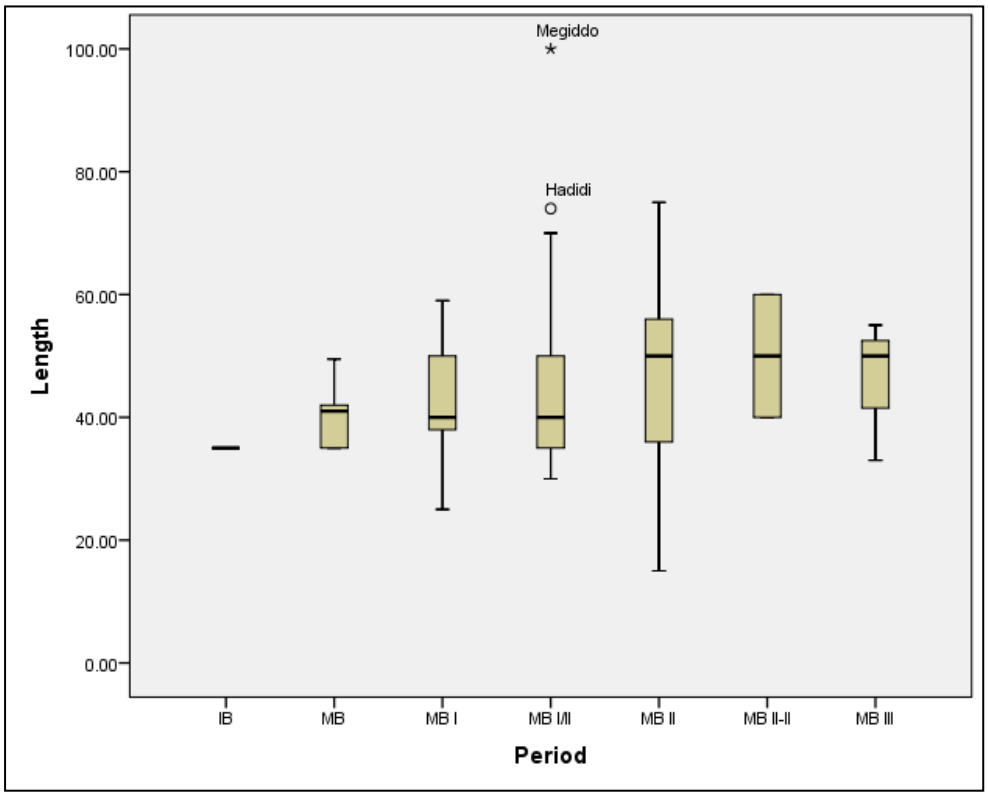

Figure 73. Box-plot showing the difference in brick length between different phases of the MB.

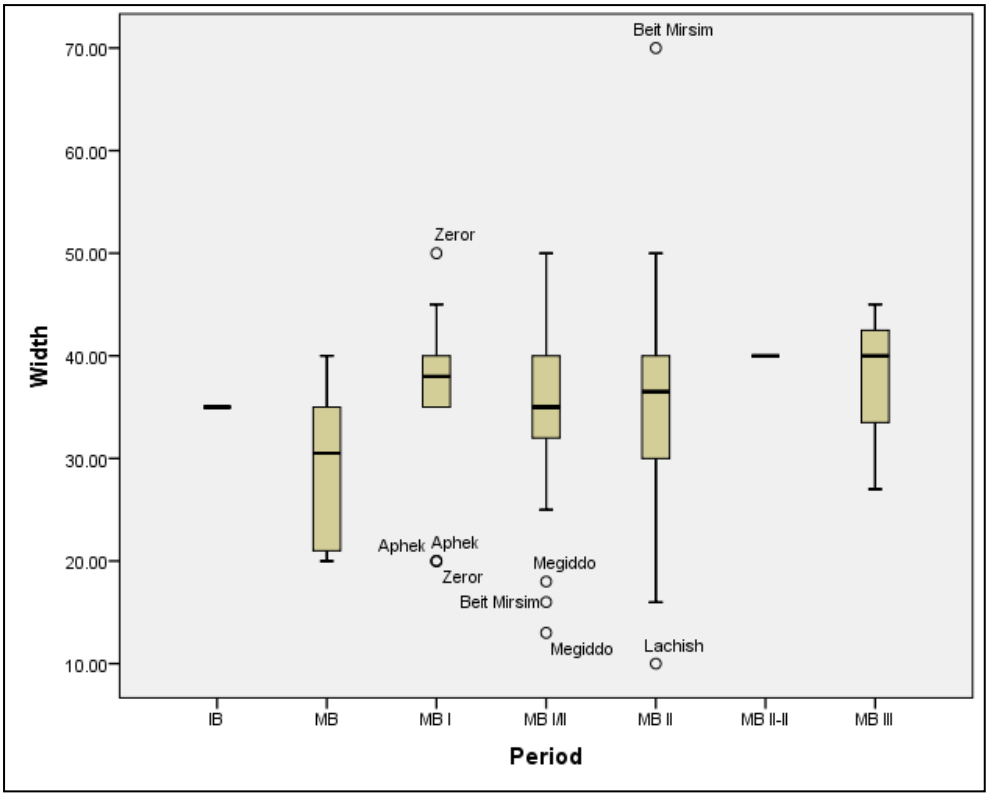

Figure 74. Box-plot showing the difference in brick width between different phases of the MB.

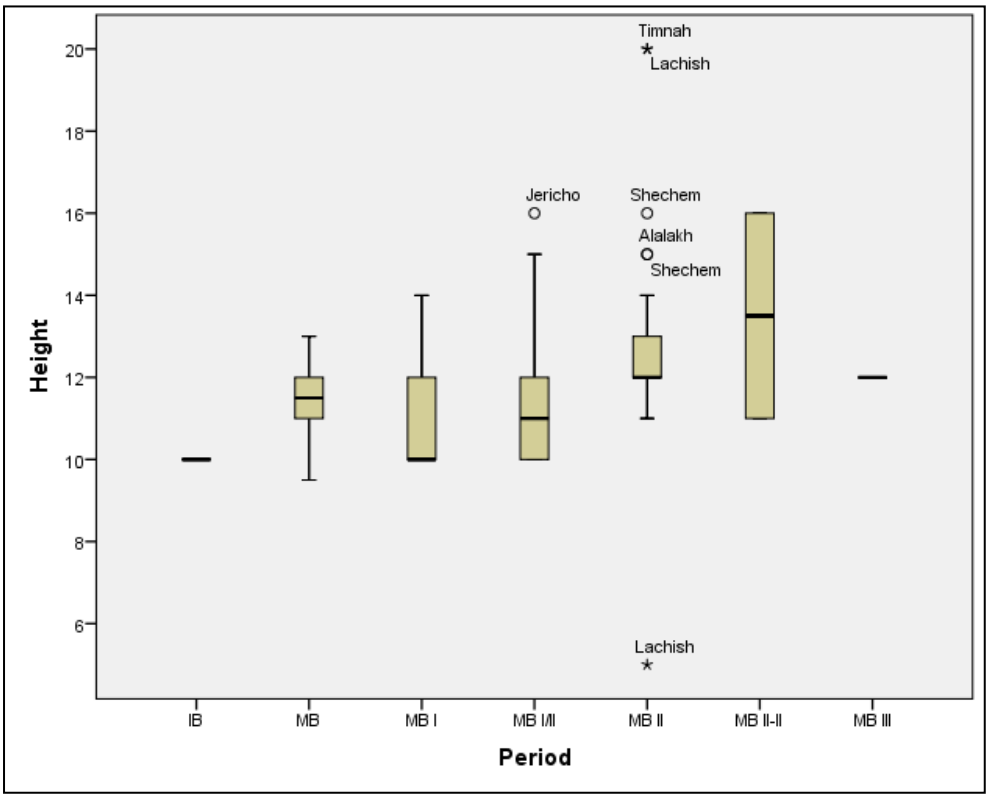

Figure 75. Box-plot showing the difference in brick height between different phases of the MB.

Northern Levant

		Site	Region	Period	Length	Width	Height
N	Valid	52	52	52	52	52	51
	Missing	0	0	0	0	0	1
Mean					42.4615	32.8077	10.70
Median					41.7500	35.0000	10.00
Mode					40.00	40.00	10
Std. Deviation					10.24927	10.32091	2.086
Variance					105.048	106.521	4.351
Skewness					.753	-.433	.427
Std. Error of Skewness					.330	.330	.333
Kurtosis					1.728	-.415	1.621
Std. Error of Kurtosis					.650	.650	.656
Range					54.00	47.50	12
Minimum					20.00	7.50	6
Maximum					74.00	55.00	17

Table 118. Statistical descriptions of bricks in the northern Levant.

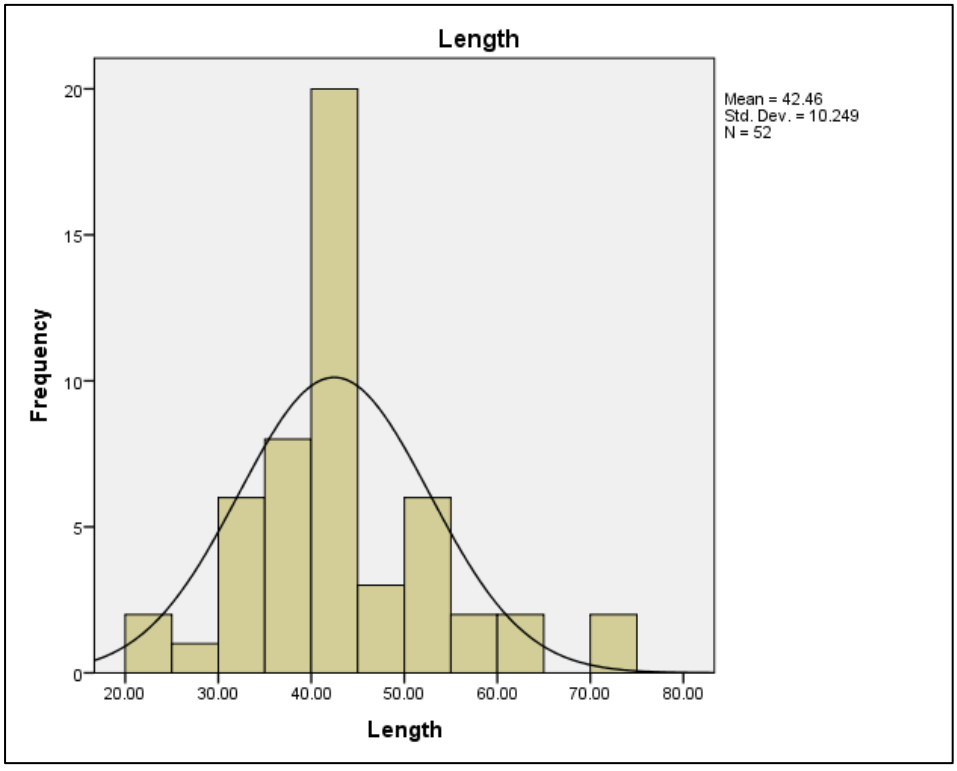

Figure 76. Histogram showing the frequencies of length for bricks in the northern Levant.

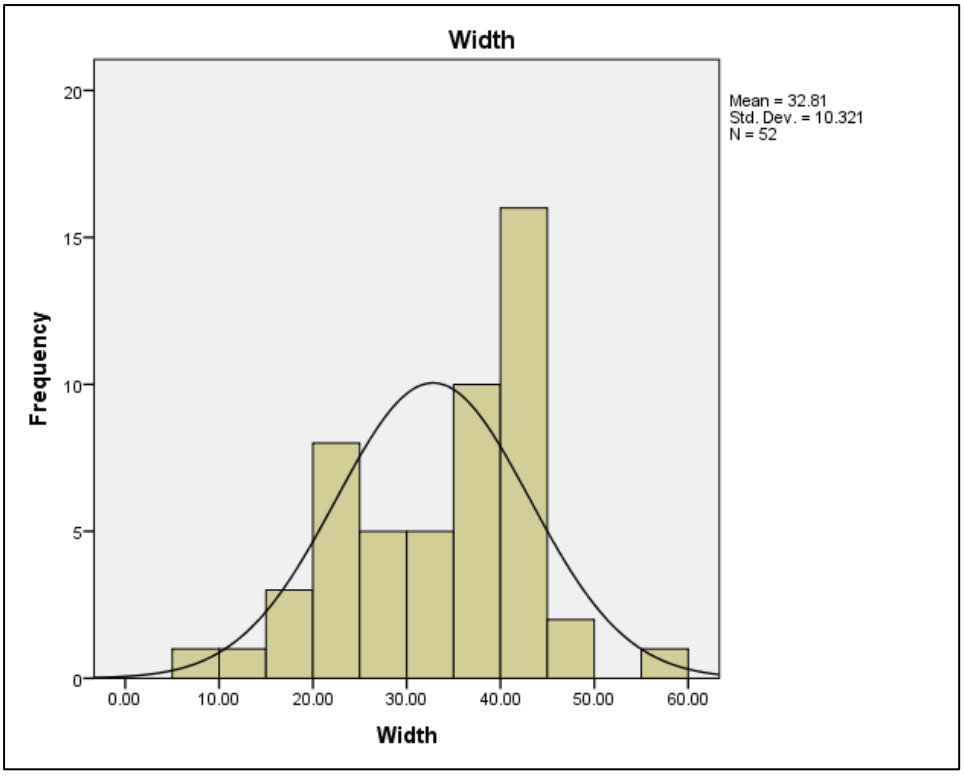

Figure 77. Histogram showing the frequencies of width for bricks in the northern Levant.

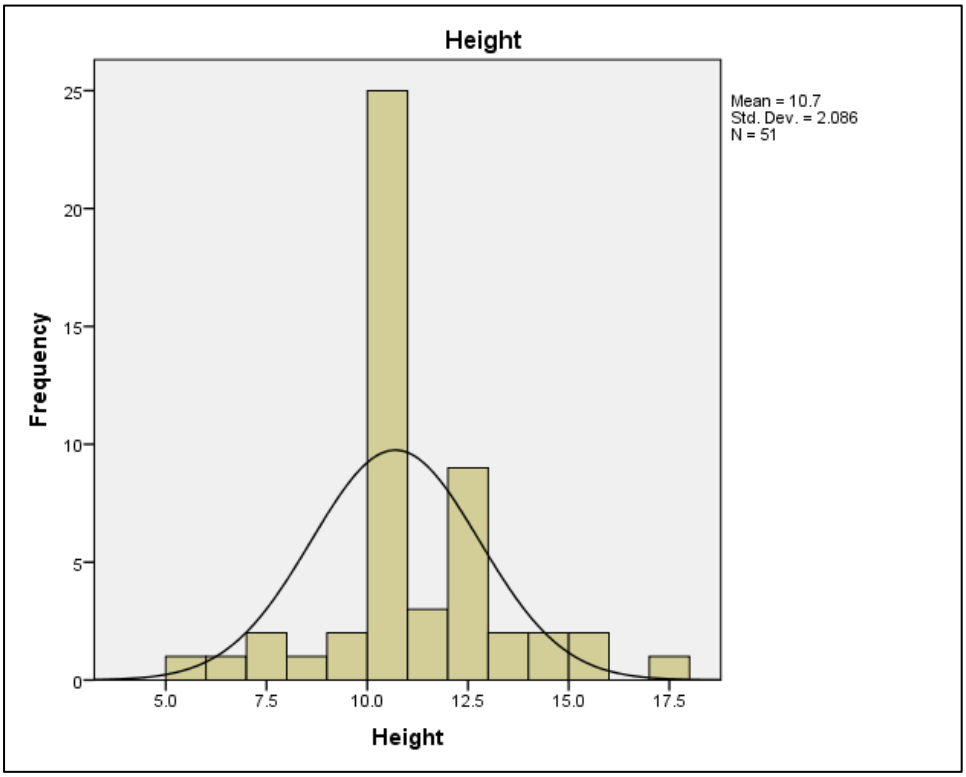

Figure 78. Histogram showing the frequencies of height for bricks in the northern Levant.

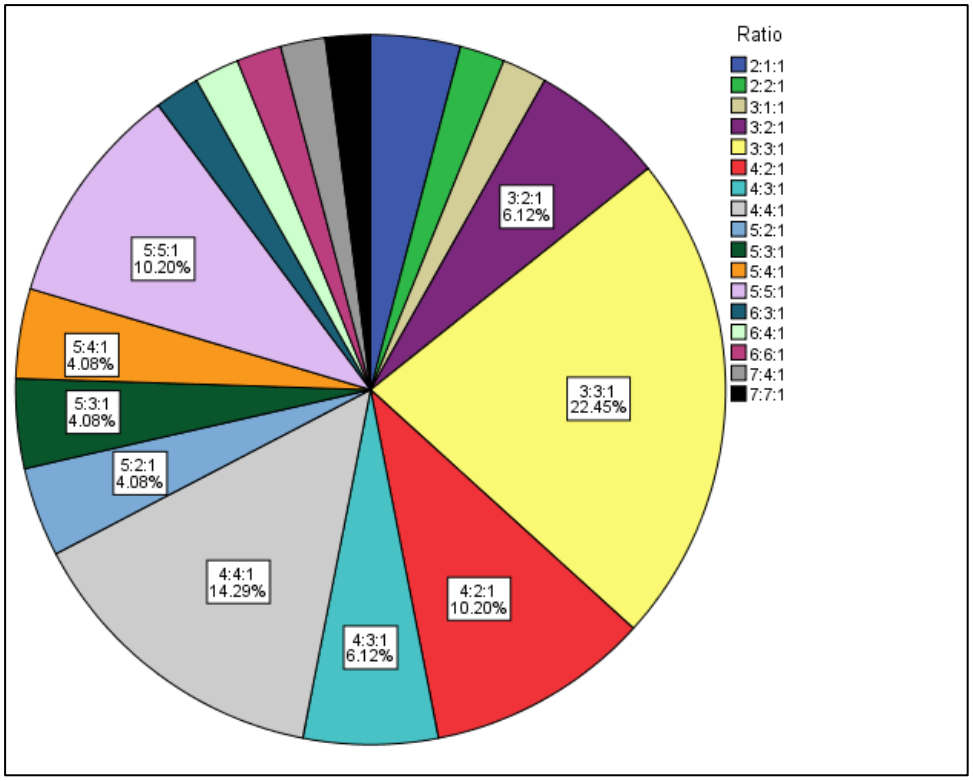

Figure 79. Pie chart showing the percentages of different ratios for bricks in the northern Levant.

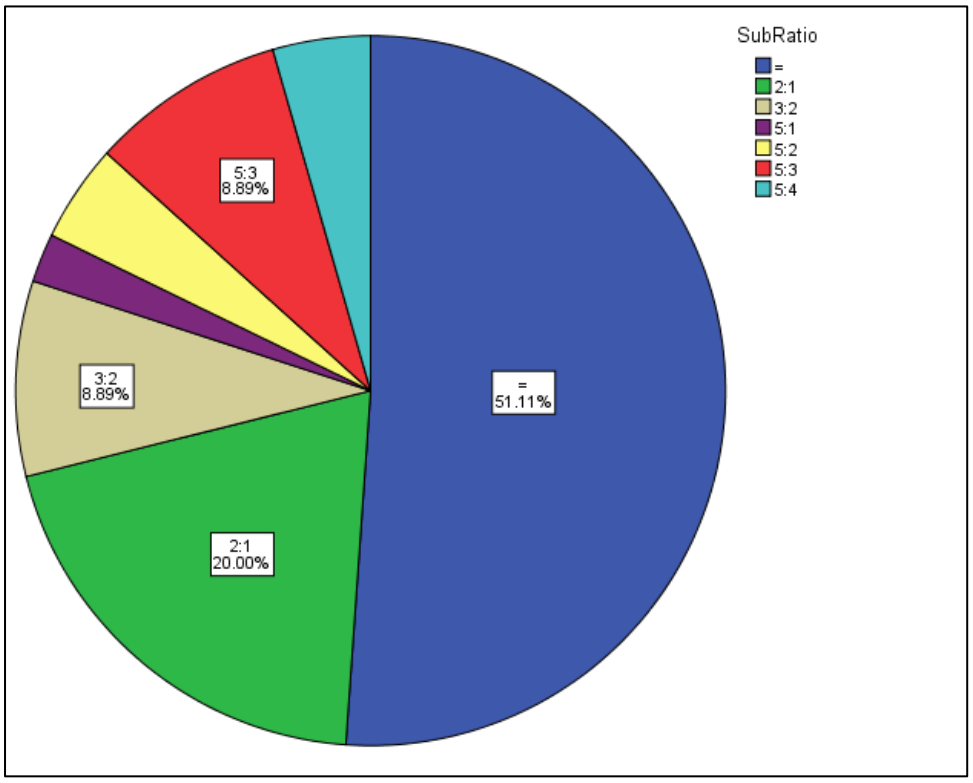

Figure 80. Pie chart showing the percentages of different sub-ratios for bricks in the northern Levant.

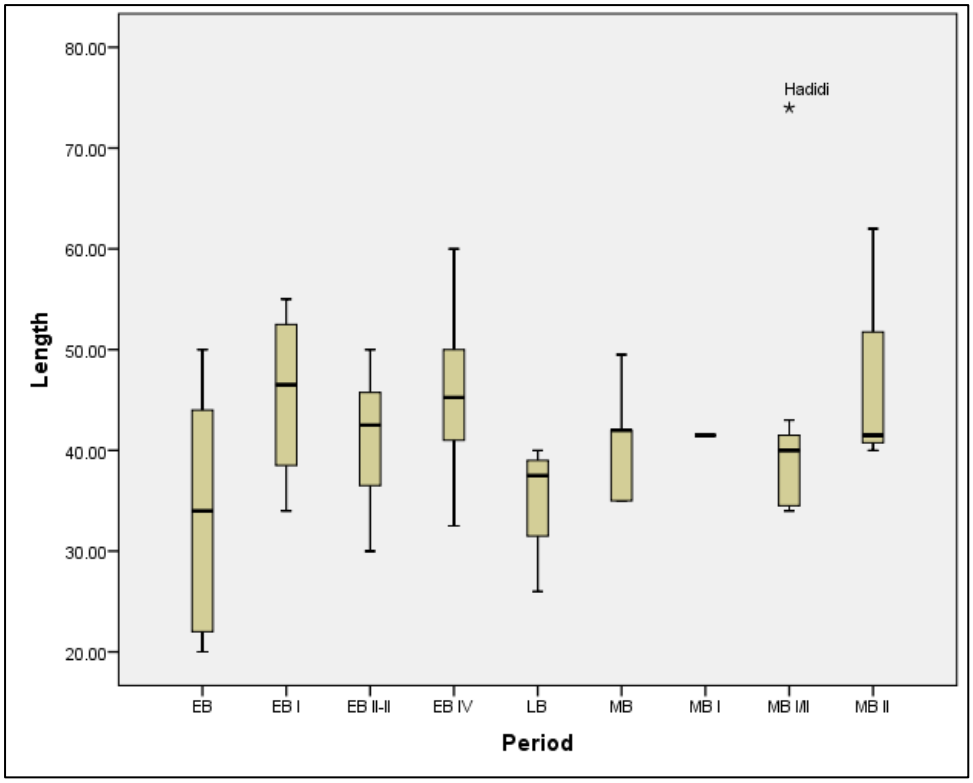

Figure 81. Box-plot showing the difference in brick length between different periods in the northern Levant.

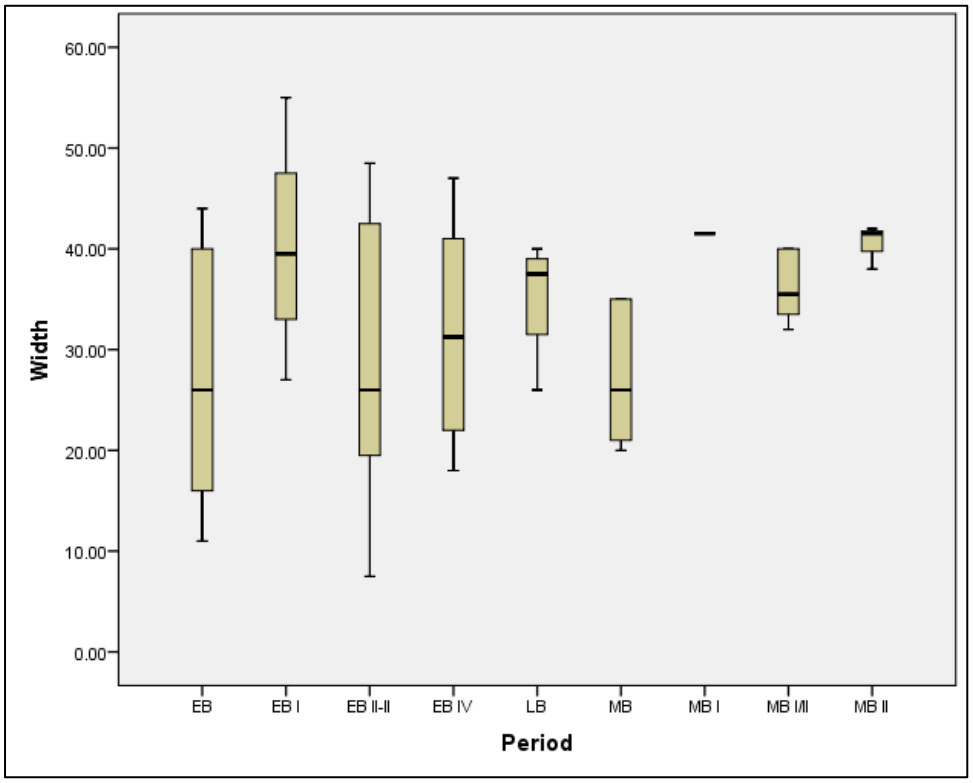

Figure 82. Box-plot showing the difference in brick width between different periods in the northern Levant.

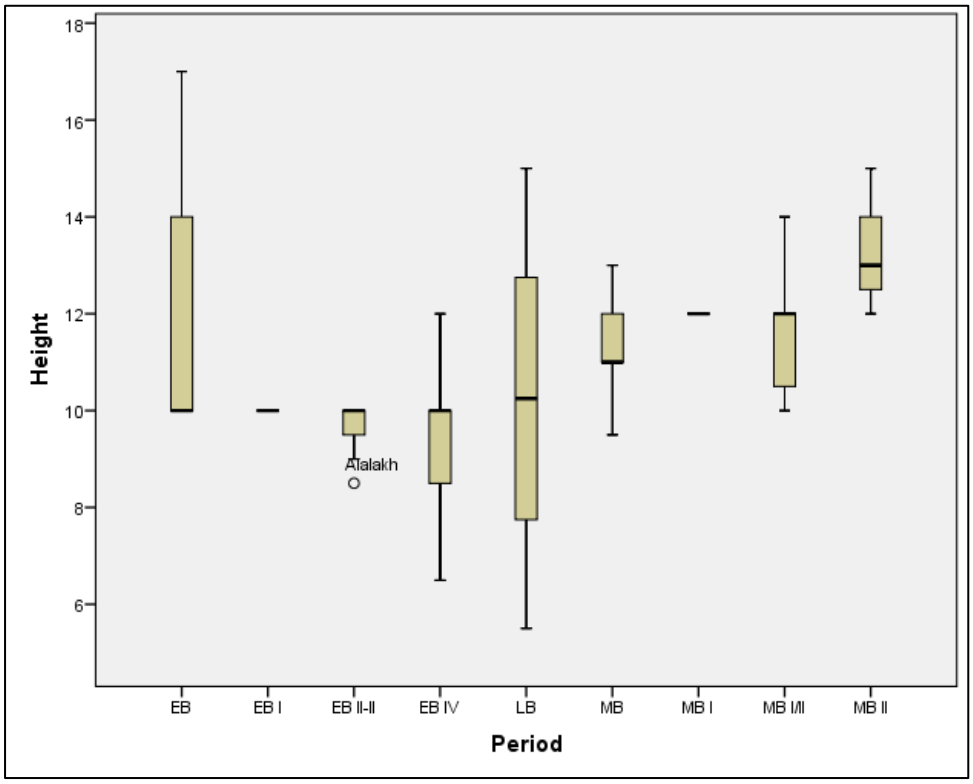

Figure 83. Box-plot showing the difference in brick height between different periods in the northern Levant.

Southern Levant

		Site	Period	Length	Width	Height
N	Valid	95	95	94	93	94
	Missing	0	0	1	2	1
Mean				45.0149	34.1903	11.73
Std. Error of Mean				1.37266	.97352	.230
Median				41.5000	35.0000	12.00
Mode				40.00	40.00	12
Std. Deviation				13.30839	9.38831	2.234
Variance				177.113	88.140	4.993
Skewness				.899	.114	1.052
Std. Error of Skewness				.249	.250	.249
Kurtosis				2.349	1.853	3.514
Std. Error of Kurtosis				.493	.495	.493
Range				85.00	60.00	15
Minimum				15.00	10.00	5
Maximum				100.00	70.00	20

Table 119. Statistical descriptions for bricks in the southern Levant.

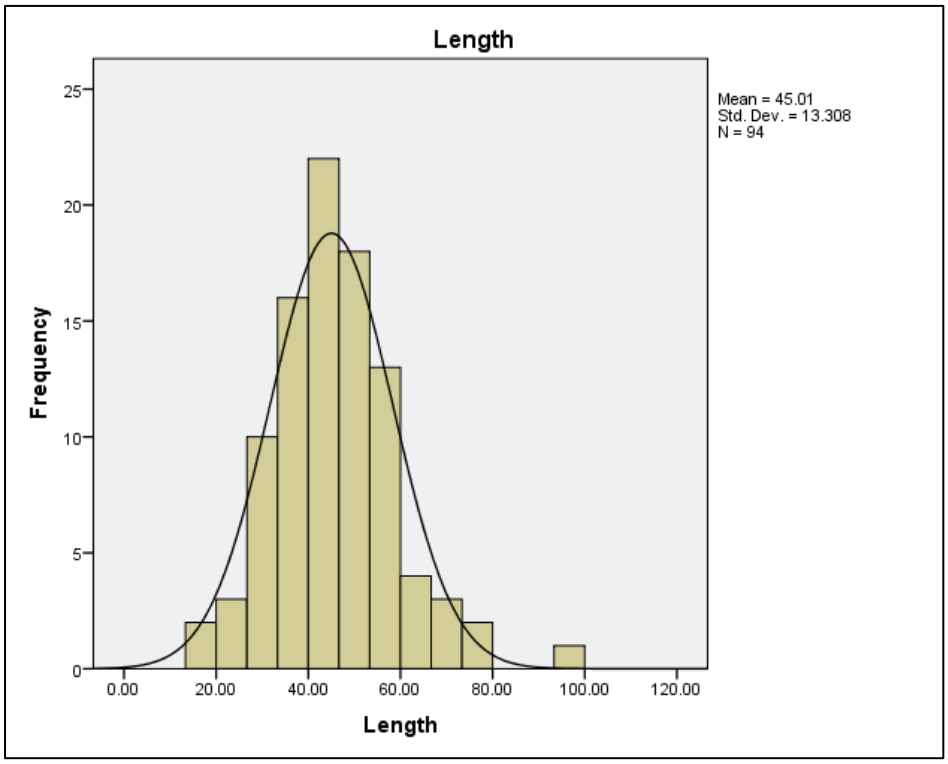

Figure 84. Histogram showing the frequencies of length for bricks in the southern Levant.

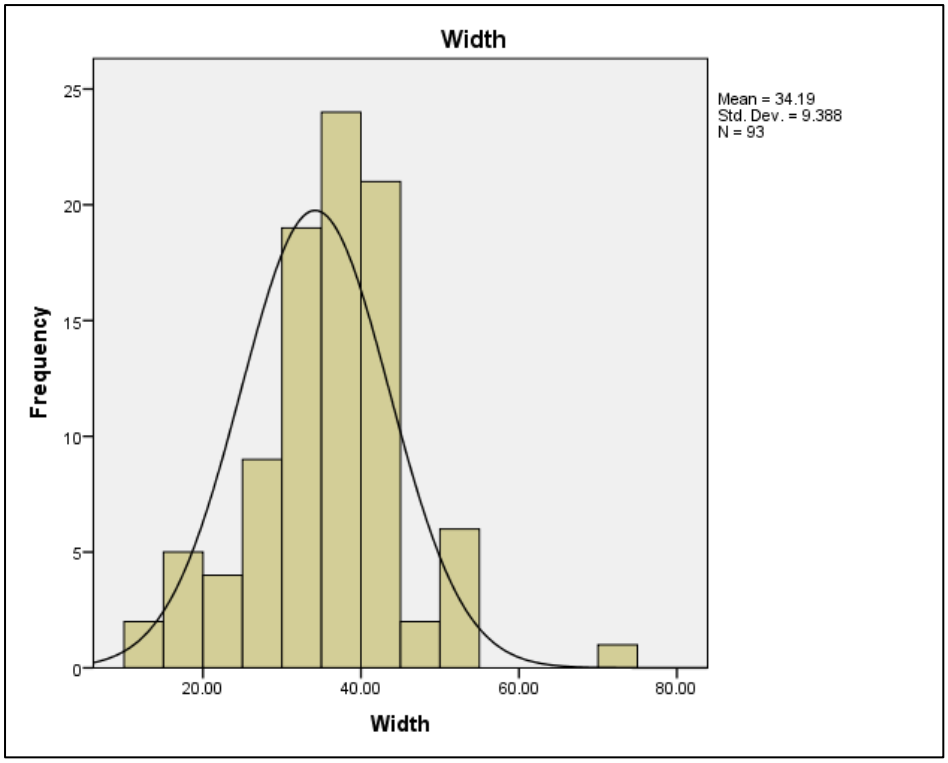

Figure 85. Histogram showing the frequencies of width for bricks in the southern Levant.

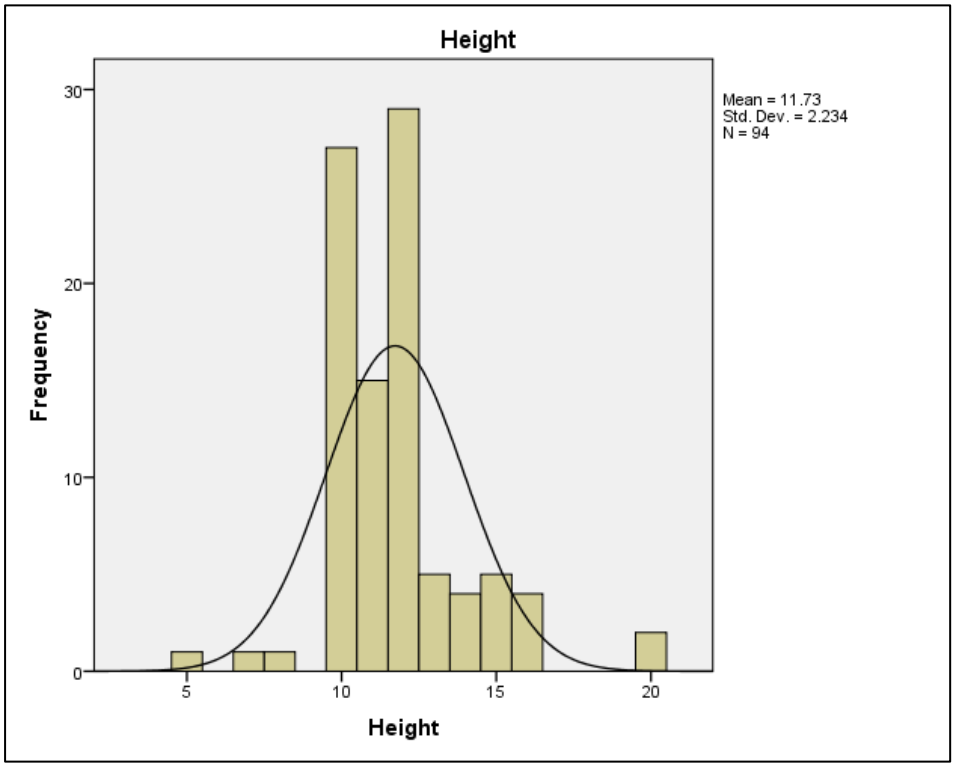

Figure 86. Histogram showing the frequencies of height for bricks in the southern Levant.

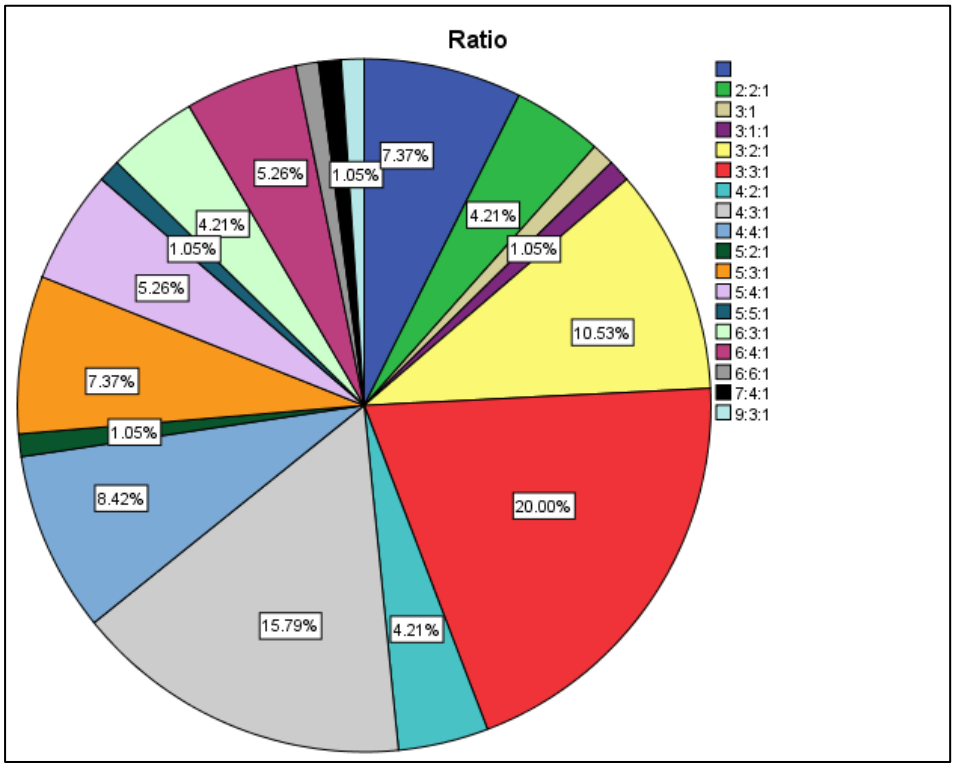

Figure 87. Pie chart showing the percentages of different ratios for bricks in the southern Levant.

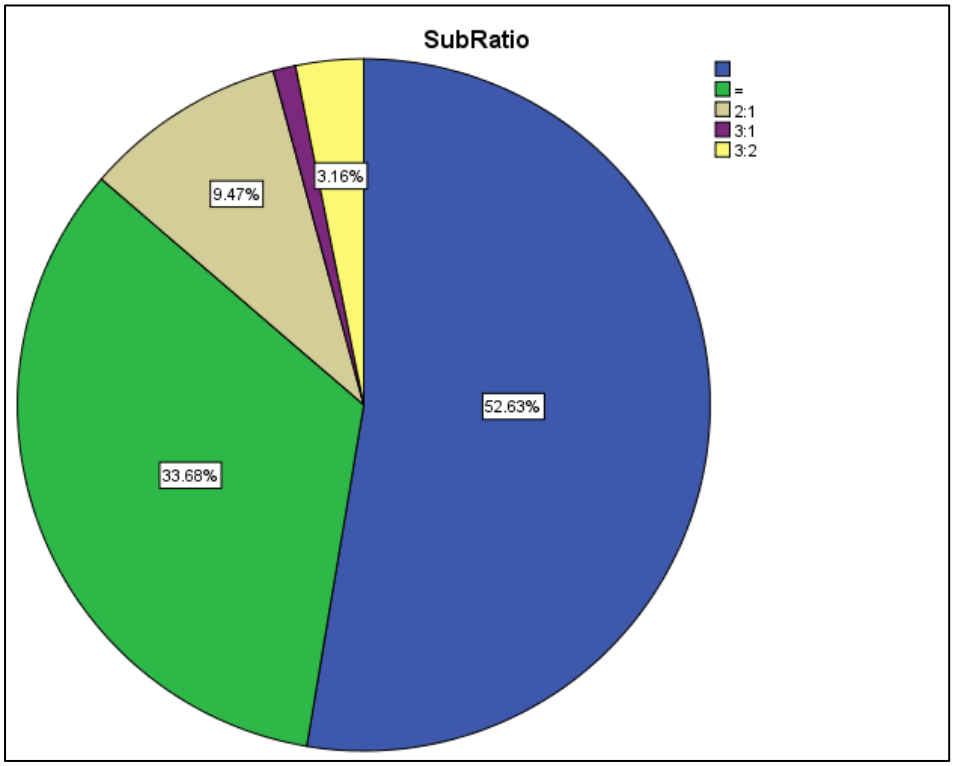

Figure 88. Pie chart showing the percentages of different sub-ratios for bricks in the southern Levant.

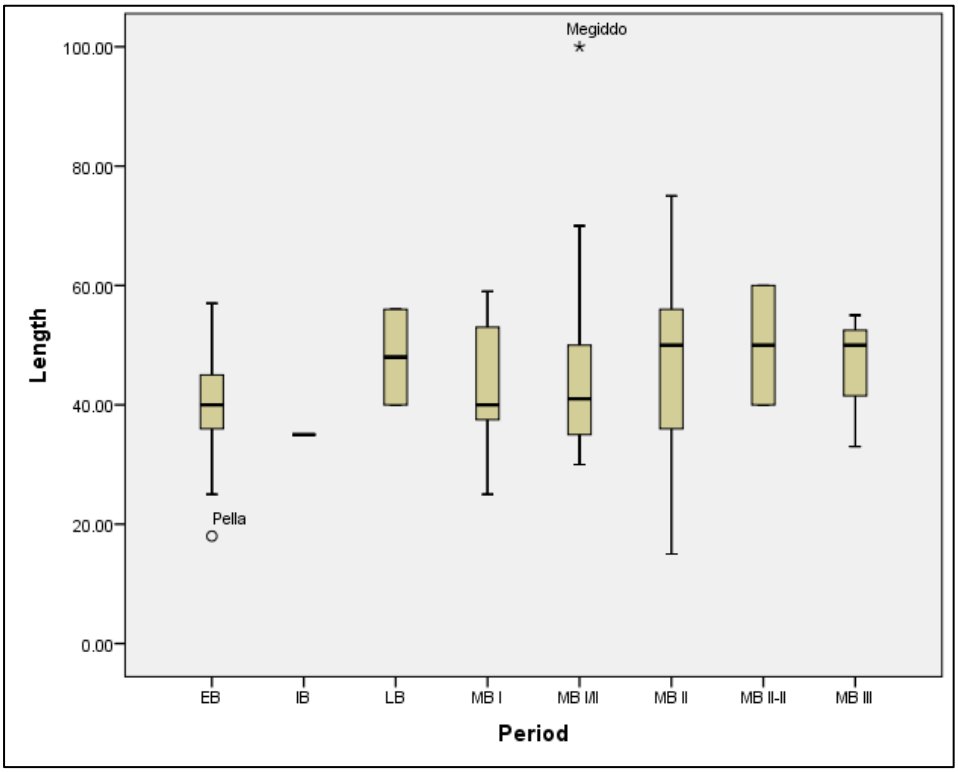

Figure 89. Box-plot showing the differences in brick length between different periods in the southern Levant.

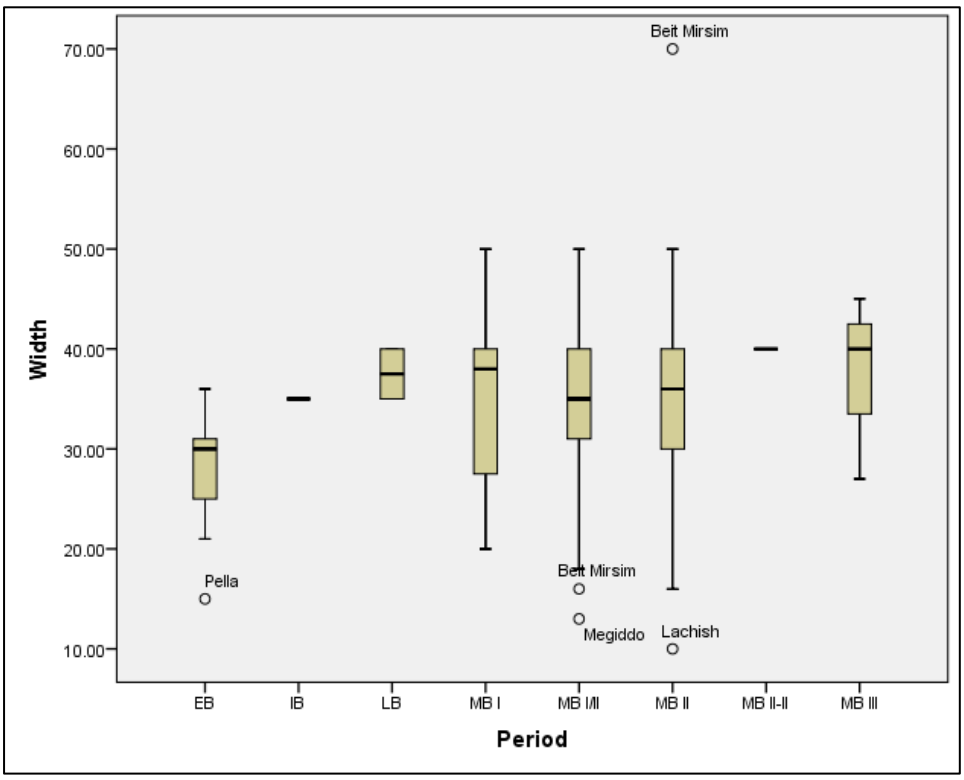

Figure 90. Box-plot showing the differences in brick width between different periods in the southern Levant.

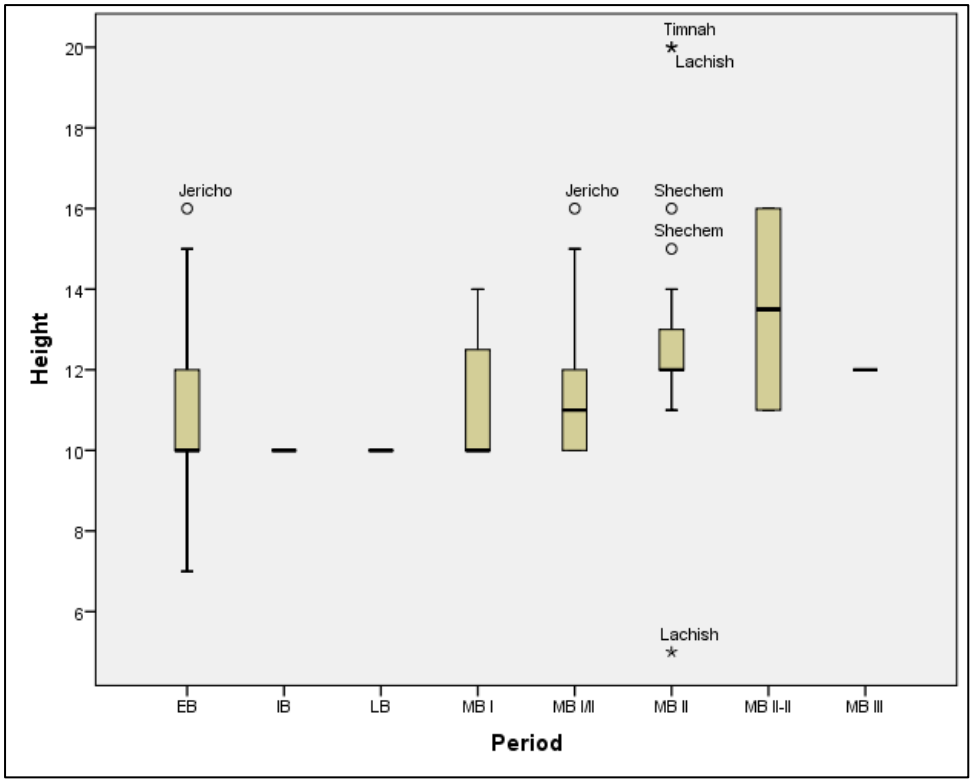

Figure 91. Box-plot showing the differences in brick height between different periods in the southern Levant.

2.2 WIDTHS OF WALLS

This database contains the widths of 206 walls in the Levant, from 51 sites ranging from the EB through the LB. These walls are categorized according to their type: (1) city walls (curtain walls), (2) walls belonging to fortification structures (e.g. towers, gates; not curtain walls), (3) walls belonging to public architecture, and (4) miscellaneous walls, that are generally domestic. I describe the cases using the following variables: 'Site', 'Period', 'Length', 'Width', Height', 'Foundation' (type), 'Architecture' (type), and 'Orientation/Location'. I use the following designations for different chronological periods, in order: EB (in general, where detailed information is lacking), EB I, EB II-III, EB IV (northern Levant), IB (southern Levant), MB (in general, where detailed information is lacking), MB I, MB I/II, MB II, MB II-III (where appropriate) and LB. Each of the following tables is arranged in chronological order. Where appropriate, I provide statistical descriptions following each category.

City walls

This database includes walls that are classified as city walls, meaning that they are curtain walls enclosing a settlement.

Table 120. Dimensions of walls in the Levant.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
‘Ai	EB II		5.0-6.0			City Wall		Urban C; Herzog 1997
Arad	EB II		2.25	*1.6*	stone	City Wall		St.III; no superstructure preserved; semi-circular/elliptical towers 5.5dia, inner chamber accessible through passage .6-.7 through wall, 20 apart on circular sections, 35 on straight; Herzog 1997
Far'ah, el- (N)	EB II		3		stone	City Wall	W	mudbrick; bastion or large buttress 2.5w at least 9L; a later 1.15w wall 3m outside; Mallet 1987
Far'ah, el- (N)	EB II		6		stone	City Wall	W, N	Stone expansion of earlier brick wall; a later 1.15w wall 3m outside; 5.5-7w in N with 1.7h 'glacis' of clay layers; 8w in NE with inner stone buttress 1w 2.5L; Mallet 1987
Keisan	EB II		5.00		stone	City Wall		Humbert 1993
Megiddo	EB II		4.5	*5*		City Wall	E	XVIIIB; Loud 1948
Ta'anach	EB II		4.2		stone	City Wall	S	Lapp 1969
Hesi, el-	EB II-III		5.0-6.0			City Wall		Doermann and Fargo 1985
Poran	EB II-III		5	*5*		City Wall		with a 1m sloping brick revetment on outer foot; Gophna 1992
Qashish	EB II-III		2.7		stone	City Wall		brick super; Ben-Tor *et al.* 2003
Rehov	EB II-III		9.5	*6.5*		City Wall	SW Upper Mound	Mudbrick; abutted on outside by earthen 'glacis'
Ta'anach	EB II-III		3.77	*2.4*	stone	City Wall	S	rubble-filled; Lapp 1969
Yarmut	EB II-III		5.6	*4.2*		City Wall	S	2.5w In NW; Herzog 1997
‘Ai	EB III		15			City Wall	W	Urban A addition to C; Herzog 1997
Beth Yerah	EB III		8	*2*		City Wall	S, E-W	consisting of 3 parts; Maisler et al. 1952 IEJ 2:165-73
Halif	EB III		3.5			City Wall		St.XV; Seger *et al.* 1990
Jericho	EB III		4		stone	City Wall		Wall C with 3.3-3.7w mudbrick super; Kenyon 1981
Yarmut	EB III		3			City Wall		Rebuild of Wall B; 2.6-3w; Herzog 1997
Ebla	EB IV		*6*	*3*		City Wall	NNW	bricks 60x40= Palace G; Matthiae 2000, 580

Table 120 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Kh. Iskander	EB IV		1.75-2			City Wall		Wall 8024; Herzog 1997
Alalakh	MB		4.5			City Wall	NW-SE	Yener 2010, 25; casemate
Carchemish	MB		8			City Wall		Woolley 1921: 209
Akko	MB I	*20*	2.5			City Wall	N	Dothan 1985; 1993
Akko	MB I		3.5	2.5		City Wall	N	huge boulders, mudbrick above with plastered surface; Dothan 1985
Aphek	MB I	*25*	2.25-2.50		stone	City Wall	N, E-W	C250; B V; outer buttresses ca. 15M apart; Yadin 2009
Dan	MB I		3.5			'Core' Wall	N, E-W	Mudbrick super; (area T) buttresses 2.9m long and 1.8 wide, spaced 2.2; "core" wall of rampart; Biran *et al.* 1996
Gerisa	MB I		1.7			City Wall	(SE)	Herzog 1993; brick strengthened by a glacis
Gerisa	MB I		2.2			City Wall	(SE)	Herzog 1993; slightly inside previous wall with elaborate glacis made of 13 tilted courses of bricks on slope interlocking with wall
Poleg	MB I		2.7			City Wall	E	Kochavi *et. al.* 1979, 133
Yoqneam	MB I		3		1 course stone	City Wall		XXIV; 2.5-3; Ben-Tor *et al*. 2005
Zeror	MB I		1		stone	City Wall		Ohata 1970, 58-61
Zeror	MB I		1.7		stone	City Wall		Ohata 1970, 58-61
Zeror	MB I		1.9	*1.1-1.4*	stone	City Wall		Ohata 1970, 58-61
Zeror	MB I		4	*1.5*	none	City Wall		Second phase, Ohata 1970, 58-61; 4.5w Herzog 1997
Beit Mirsim	MB I/II		3.7	*3.45*		City Wall		Stratum F addition of buttress wall .3-.5 wide *inside* G; Albright 1938
Beit Mirsim	MB I/II		3.2-3.3	*3.45*		City Wall		Stratum G; Albright 1938
Hadidi	MB I/II		3			City Wall	N	Area B; Level D; Dornemann 1979, 132
Hadidi	MB I/II		4.25			City Wall		Area B; Level E rebuilding of D; Dornemann 1979, 141
Hadidi	MB I/II		2			City Wall		Area P; 2 or more; Dornemann 197,: 144
Hazor	MB I/II		5			City Wall	NE	Walls 5530 and 5529 each 1.5w with 1.7 between; bridge depression connecting gate (S4) to rampart; Yadin 1972
Hazor	MB I/II		7.9	*5*	stone	City Wall	E, Upper	Foundation 8.8w 2h E 1.2h W; core built with little care, then careful dark, then strong light (.4-.5w); outer face plastered; Herzog 1997,123: 7.9w, contra. LB (Ben-Tor 1995)
Hazor	MB I/II		11.0-16.0			Core Wall	N	Area H: 8w at top; 'structural casemate' 3x5; vertical outer face with plaster; Yadin 1972
Jericho	MB I/II		2.3			City Wall	E	Marchetti 2000, 304-6; contra Kenyon's 3 separate phases
Jericho	MB I/II		3.5	*1.75*		City Wall	E	W. 7; Nigro 2000; Marchetti 2003; corresponds with Kenyon's HCJ and HCP; height of 12 courses
Jericho	MB I/II		5.75	*1.2*	fieldstone	City Wall	W	16 rows, 9 courses; crowning 1st rampart; Sarie 1998

Table 120 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Jericho	MB I/II		2-2.5			Tower Wall		Garstang 1932
Kabri	MB I/II		4.00		large stone	City Wall		W400; brick super 1h(?); inner retaining wall of rampart; Kempinski 2002
Kabri	MB I/II		*5.50*		large stones	Fort. Wall		W404/W1600; possibly revetment or outer fort. Wall; Kempinski 2002
Megiddo	MB I/II		1.8		stone	City Wall	N, E-W	AA XIII; buttressed in regular ca. 2.5L(?) intervals; Loud 1948
Megiddo	MB I/II		3		stone	City Wall	N, E-W	AA XIII; external to gate; Loud 1948
Megiddo	MB I/II		1.5		stone	City Wall	E, N-S	BB XIII; regularly spaced buttresses one brick thick; bricks of coarse brown clay; Loud 1948
Megiddo	MB I/II		1.5			City Wall	E, N-S	BB XII; doubles above; superior construction with white lime mortar; wider buttresses at longer intervals; Loud 1948
Megiddo	MB I/II		2			City Wall	S, E-W	CC XIII-XII; outer wall, also same inner wall dimension; Loud 1948
Pella	MB I/II		3.5	*7*	stone	City Wall	SE, N-S	Wall 41; interior and exterior (.88w) buttresses; in IIIF 6h (35 courses), 8 course stone foundation; lowest 20 courses (and highest) ashy grey with orange mortar, middle 1.2h green with brown mortar; mud plaster on both faces; McLaren 2003
Pella	MB I/II		3.58		none	City Wall	SE, E-W	Wall 7; later than 41; lower 42 courses orange with dark brown mortar, upper courses dark red with white mortar; McLaren 2003
Pella	MB I/II		2.5-3.0	*2*	stone	City Wall	S, E-W	Curtain Wall 9; W from Tower 1; set back 1.5 from tower face; running bond and integral to tower; lime plaster exterior; linked to tower with butt. 12; butt. 16 on interior 1w 2.5L; McLaren 2003
Pella	MB I/II		2.5-3.0	*0.4*	stone	City Wall	S, E-W	Curtain Wall 10; E from Tower 1; flush with tower; running bond and integral to tower; .5m sawtooth ca. 7m E of tower; McLaren 2003
Qashish	MB I/II		1.7			City Wall		Ben-Tor *et al.* 2003
Arqa	MB II		1.7		stone	City Wall		Stratum 13 (Thalmann 1991, 32); foundations more than 1 m high; walls 21.72 and 21.74 in Thalmann 1979, 67?
Arqa	MB II		2		stone	City Wall		Stratum 13 (Thalmann 2010,: 99)
Batash	MB II		2.4			City Wall		brick with rampart; Mazar 1997
Beit Mirsim	MB II		0.75			Inner City Wall		inner; 1.50 between; Albright 1938
Beit Mirsim	MB II		1.5			Outer City Wall		Outer; Albright 1938
Beth Shemesh	MB II		2		large stone blocks	City Wall		Mackenzie 1912-13; cf. Herzog 1997,162 2.2-2.4

Table 120 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Beth Shemesh	MB II		1.1			Inner City Wall		1.5-2.0 between; Herzog 1997
Beth Shemesh	MB II		1.4-1.6			Outer City Wall		Herzog 1997; Mackenzie 1912-13
Bethel	MB II		*3.5*	4.82		City Wall		H inc. (1.12m) 3 foundation courses; Kelso 1968
Gerisa	MB II		3			City Wall		above earlier fortifications; Herzog 1993
Gezer	MB II		4	*4.5*	cyclopean	City Wall		with towers set 20-30m apart, blocks of 10-12 x 5-7, one-two internal roomed of 12-13 x 8-9; glacis; Dever 1974; Finkelstein 2002
Hazor	MB II		5.25		stone *2h*	City Wall	NE	Walls 5528 and 5534 each 1.5w with 2.25 between; Yadin 1972
Jericho	MB II		2.0-2.8			City Wall		Kenyon 1981
Keisan	MB II		5.00	*5*	stone	City Wall		built of .5x.5 square stones; outer face vertical; supported by glacis; Humbert 1993
Lachish	MB II		3.2			City Wall		Mudbrick; post-dates earthworks as it's built on slope; Tufnell 1958, 48
Nagila	MB II		2.3-2.5			City Wall		Herzog 1997; with rampart and glacis
Nahariya	MB II		3.8		stone	City Wall		St.II; stone only; Yogev 1993
Shechem	MB II		2.65-2.85		stone	City Wall		Wall D, serves as a interior retainer for C Rampart; XX; Campbell 2002
Shechem	MB II			5		Retaining Wall		Wall C; XIX; of rampart C; Campbell 2002
Yoqneam	MB II		3	*1.6*	1 course stone	City Wall		XXIII; directly above earlier; Ben-Tor *et al.* 2005
Yoqneam	MB II		1.5			City Wall		XXII; possibly wider, but eroded; Ben-Tor *et al.* 2005
Zurekiyeh, 'ein	MB II		3.2	*0.6*	stone	City Wall		in both N and E, same width; Gophna & Ayalon 1982
Deir Alla	MB II-III		1	*2.5*		City Wall		Franken & Ibrahim 1978
Far'ah, el- (N)	MB II-III		2.2	*2.5*	stone	City Wall	N, W	ass. with gate and bastion; stone foundation preserved to 1-2.3h; constructed above EB wall; inner face (stone) buttresses .5-.8 deep, 1-1.4w, 2-2.8 intervals; Mallet 1987
Shechem	MB II-III		4	*10*		City Wall	NW	A, XVI; Campbell 2002

Table 120 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Shiloh	MB II-III		5	*6.7*	stone on bedrock	City Wall		St.VII; 2.8-3.8w in NE, av. Of 5m elsewhere; boulders; sawtooth projections at 5-7m intervals .60-.80 outward; offset by stone fill to counter weight of rampart; Finkelstein *et al.* 1993
Alalakh	LB		4.8			Inner City Wall	NE	Stratum II, 8 courses of wall preserved; Woolley 1938, 15; inner
Alalakh	LB		3		packed clay	Outer City Wall		Stratum II; Woolley 1938, 18; face of slope plastered with clay (17); outer
Alalakh	LB	11	4.8			Outer wall		Stratum I; Abuts palace outer wall; Woolley 193,: 21
Arqa	LB		1.4		stone	City Wall	W	Thalmann 2006, 72; Wall 12.25
Arqa	LB		1.15		stone	City Wall	W	Thalmann 2006, 72; Wall 12.26
Arqa	LB		1.6		stone	City Wall	W	Thalmann 2006, 72; Wall 12.28
Carchemish	LB		5.2			City Wall		Woolley 1921, 50; outer town wall
Gezer	LB		4			City Wall		with crude glacis; Dever 1974
Hazor	LB		5.4-6.0	*1.9*	stone	City Wall		Area B, St.XIII-XV, C-C; LB City Wall(?); 4-5 course stones; top of wall stepped; Yadin 1972
Hazor	LB		3		stone	City Wall	NE	5513; connected to Gate IB; Yadin 1972

Statistical descriptions of city walls

		Site	Region	Period	Width
N	Valid	21	21	21	21
	Missing	0	0	0	0
Mean					5.0414
Median					4.5000
Mode					3.00[a]
Std. Deviation					2.97911
Variance					8.875
Skewness					2.058
Std. Error of Skewness					.501
Kurtosis					5.610
Std. Error of Kurtosis					.972
Range					13.15
Minimum					1.85
Maximum					15.00

a. Multiple modes exist. The smallest value is shown

Table 121. Statistical descriptions of the widths of EB city walls.

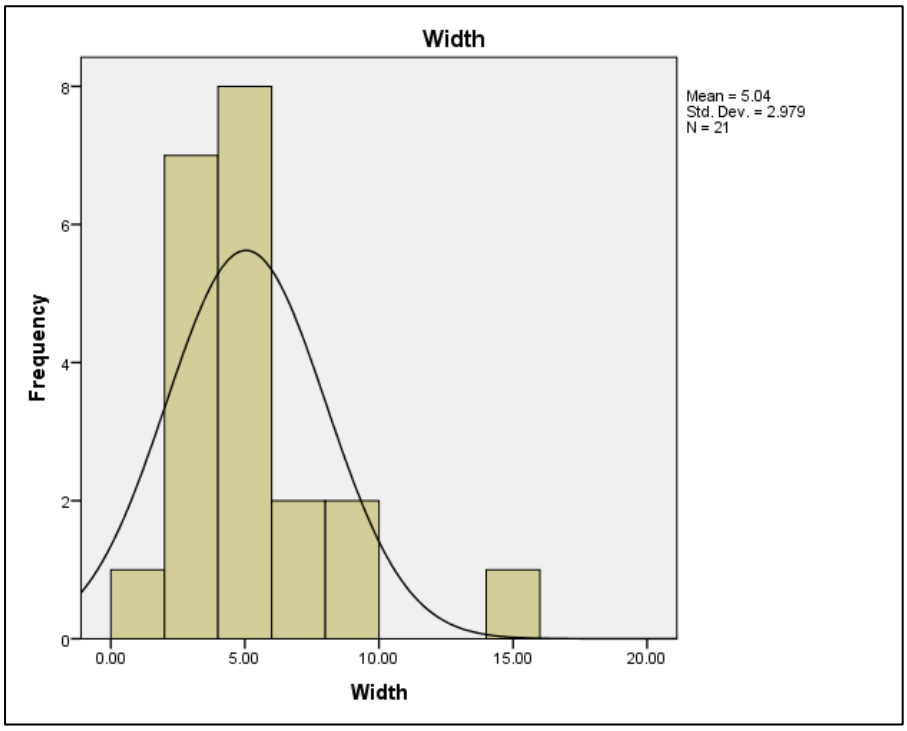

Figure 92. Histogram showing the frequencies of city wall widths in the EB.

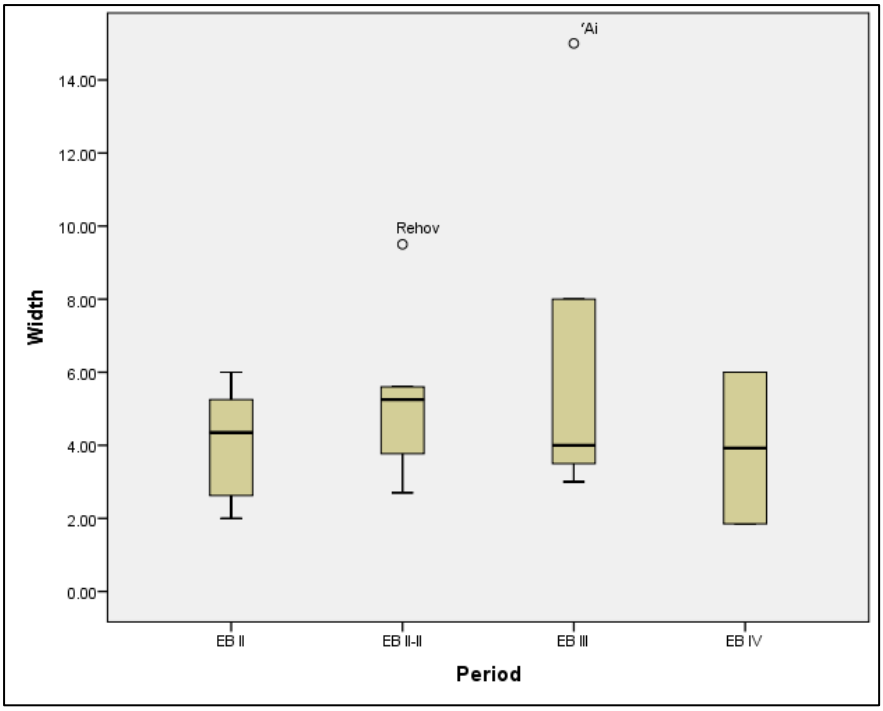

Figure 93. Box-plot showing the difference of city wall widths between different phases of the EB.

		Site	Period	Width	Construction
N	Valid	61	61	61	61
	Missing	0	0	0	0
Mean				3.2049	
Std. Error of Mean				.25680	
Median				2.7500	
Mode				2.00[a]	
Std. Deviation				2.00567	
Variance				4.023	
Skewness				2.708	
Std. Error of Skewness				.306	
Kurtosis				11.129	
Std. Error of Kurtosis				.604	
Range				12.75	
Minimum				.75	
Maximum				13.50	

a. Multiple modes exist. The smallest value is shown

Table 122. Statistical descriptions of the widths of city walls in the MB.

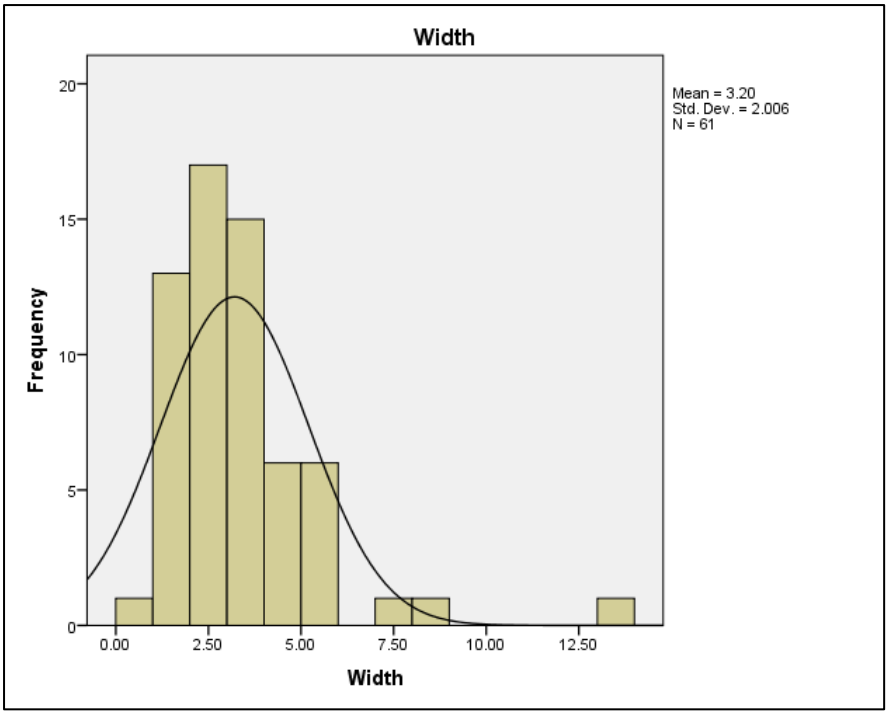

Figure 94. Histogram showing the frequencies of city wall widths in the MB.

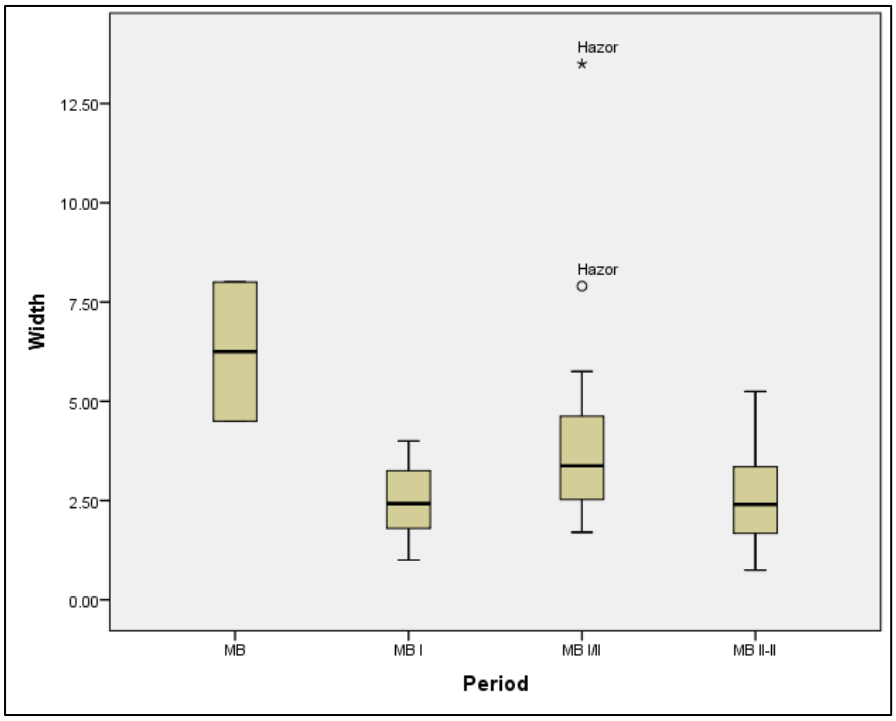

Figure 95. Box-plot showing the difference of city wall widths between different phases of the MB.

Fortification walls

This database includes walls that relate to fortifications, but are not directly associated with city walls. Since this database is limited, and comprises a variety of wall types, I made no statistical descriptions for it.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Arad	EB II		1.5-1.7			Bastion	C	Str.II; Herzog 1997
Far'ah, el- (N)	EB II		2		stone	Gate Walls	W	Gate flanked by towers; Mallet 1987
Far'ah, el- (N)	EB II		2		stone	Gate Wall	W	Gate flanked by towers; Mallet 1987
Ta'anach	EB II		2		stone	Tower	S	enclosing a space of 8x3.5; Herzog 1997; Lapp 1969
Dan	MB I		1.7	4		Gate Walls	N-S	inner wall; includes centre arch; Biran 1994; Brian *et al*. 1996
Dan	MB I		3.5	*7*		Gate Walls	N-S	E Wall; Biran 1994; Brian *et al*. 1996
Dan	MB I		1.85	2		Gate Walls	E-W	N and S walls of Gate passage; Biran 1994; Brian *et al*. 1996
Dan	MB I		2.8	*7*		Gate Walls	N-S	W Wall of Gate; Biran 1994; Brian *et al*. 1996
Ebla	MB I/II		3			Bastion	SE	Bastion M and W Fortress
Ebla	MB I/II		*2*			Bastion	N	N Fortress; Matthaie 2000
Ebla	MB I/II		2.5			Citadel		M4500; Matthaie 2000
Jericho	MB I/II		2-2.5			Tower		Garstang 1932
Bethel	MB II		1.5			Gate Walls	NW	minimum width
Jerusalem	MB II	*45*	3-3.05	*8*	stone	Fort. Wall	E-W	Wall 108 (N); 2.3 apart; large blocks of stone; Reich & Shukron 2010
Jerusalem	MB II	*45*	3-3.05		stone	Fort. Wall	E-W	Ibid. Wall 190 (S); Reich & Shukron 2010
Jerusalem	MB II		2.00		stone	Fort. Wall	N-S	Reich & Shukron 2010; Kenyon's NB
Kitan	MB II		2		stone	Fort. Wall		surround area of Temple st.IV; sq. mudbricks same as temple; Eisenberg 1993
Yavneh-Yam	MB II		2.4			Tower	E	Tower of gate II; Kaplan 1993
Yoqneam	MB II		1.5			Fort. Wall		XXIII; W.412; association with city wall and glacis unclear; Ben-Tor *et al.* 2005
Far'ah, el- (N)	MB II-III		1.5-1.8			Gate Walls	W	Mallet 1987

Table 123. Dimensions of various fortification walls (not necessarily related to city walls) in the Levant.

Walls from public buildings

The walls included in this database comprise various sorts of walls deriving from palaces or temples.

Table 124. Dimensions of walls from public architecture in the Levant.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
‘Ai	EB II		2			Temple	W	Urban C; 23x10; Herzog 1997
Alalakh	EB II-III		2.25			Palace		Stratum XII; Woolley 1955, 17
Alalakh	EB II-III		2.9			Temple		Back wall; Stratum XII; Woolley 1955, 47; wall replaced smaller one of level XIV
Alalakh	EB II-III		1.9			Temple		Front wall; Stratum XII; Woolley 1955, 47; wall replaced smaller one of level XIV
Megiddo	EB III		2			Temple	E	4040; XVIIIB; Loud 1948
Alalakh	EB IV		2.9			Palace		Stratum X; Woolley 1955, 26
Alalakh	EB IV		1.4-2.3			Palace		Stratum XI; Woolley 1955, 25
Alalakh	EB IV		2			Palace		Stratum XI; Woolley 1955, 25
Alalakh	EB IV		0.8			Temple		Platform; Stratum X; Woolley 1955, 55
Alalakh	EB IV		0.85-1.3			Temple		Platform; Stratum XI; Woolley 1955, 54
Ebla	EB IV		3.65			Temple		Red Temple, Area D; av. 3.5-3.8; Matthiae 7ICAANE 2010
Aphek	MB I		1.2		stone	Palace	N Acropolis, slightly angled	X17 Palace I, bricks with white plaster; Yadin 2009
Aphek	MB I	8.5	1.6		large, trimmed stone	Palace	NW	palace wall (L123); A XIVA, E. wall of courtyard; Yadin 2009
Qatna	MB I		10		mudbrick	Palace		Op.G; More than 10; Novak & Pfalzner 2002, 80; palace wall foundation depth 4 m
Qatna	MB I		9			Palace		Op.G; Novak & Pfalzner 2002, 87; wall between Rooms F and G; substruction for Rooms S and V
Qatna	MB I		4.5			Palace		Op.H; Barro 2002, 116; Room A walls (W, N, and E); depth 4 m

Table 124 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Qatna	MB I		1.8			Palace		Op.H; Barro 2002, 117; Wall 1026
Qatna	MB I		2.8			Palace		Op.H; Barro 2002, 116; Wall 1273
Qatna	MB I		2.8			Palace		Op.H; Barro 2002, 117; Wall 1278
Qatna	MB I		6.5			Palace		Op.H; Barro 2002, 116; E of Room A; Wall 942
Qatna	MB I		1.8			Palace		Op.H; Barro 2002, 116; E-W orientation; Wall 999
Alalakh	MB I/II		0.65		pebbles	Temple		Stratum VIII; Woolley 1955, 58; plastered and whitewashed
Ajjul	MB II		1.15		stone	Palace		Palace I; Cross-walls 1.15 thick; Petrie 1933
Ajjul	MB II		1.14			Palace		Palace I; dividing walls of chambers; W, 0.94-1.07N; Petrie 1933
Ajjul	MB II		1			Palace	N	Palace II; 1 header, 1 stretcher 36x56 and 8cm of clay between; Petrie 1933
Alalakh	MB II		2			Palace	NW	Stratum VII palace walls; Woolley 1955, 93
Alalakh	MB II		4		brick rubble	Temple		sanctuary'; Stratum VII; Woolley 1955, 59
Aphek	MB II		1.25		stone	Palace	N Acropolis	X15 Palace IV; Yadin 2009
Bethel	MB II	3.5	1.25			Palace		“Haram” area; doorway 1m; Kelso 1968
Hazor	MB II		2.3			Temple	N, Angled	Outer Temple Walls; Area H Temple St.3; Yadin 1972
Hazor	MB II		2.5		stone	Temple		doubled 1.25w walls; Yadin 1972
Hazor	MB II		2.5-3.0		stone	Temple/Palace Walls		Area F, St.3; Yadin 1972
Nahariya	MB II		0.9		partly hewn stone	Temple		rectangular temple; Yogev 1993
Qatna	MB II		10		mudbrick	Palace		Op.G; Novak & Pfalzner 2002, 81; Wall M65 substruction wall, E of Hall C; depth 4 m
Shechem	MB II-III		5.1		masonry'	Temple		*Migdal*; XVI; brick super; Campbell 2002
Alalakh	LB	11	4.8			Palace		Outer wall; Stratum I; Abuts palace outer wall; Woolley 1938, 21
Alalakh	LB		1.3		stone	Palace		Stratum V; Woolley 1955, 109
Alalakh	LB		2		limestone	Palace	NW	Stratum I; preserved to three courses; Woolley 1938, 20
Alalakh	LB		3.9			Palace		Outer Wall; Stratum I; on SE face are a series of rectangular buttresses 7.5 m apart (5 by 3.8 m); Woolley 1938, 21

Table 124 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Alalakh	LB		2.1		stone	Temple		Shrine B; Stratum III; Woolley 1955, 76
Alalakh	LB		1.15			Temple	NW-SW	Stratum IV; Woolley 1955, 71
Alalakh	LB		4.75		stone	Temple	NE	Stratum IV; Woolley 1955, 71
Alalakh	LB		1.3			Temple	SW	Stratum IV average outer wall width; Woolley 1955, 72
Alalakh	LB		3.5		stone	Temple	NW	Stratum III; Woolley 1955, 73; cross-wall between cella and antechamber
Alalakh	LB		2.7			Temple		Antechamber; Stratum III; Woolley 1955, 73
Hazor	LB		2.1			Temple	NW	Outer Temple Walls; Area H Temple St.IB; Yadin 1972
Hazor	LB		1.2			Temple	NW	Temple Porch Walls; Area H Temple St.IB; Yadin 1972

Statistical descriptions of public walls

		Site	Region	Period	Width
N	Valid	10	10	10	10
	Missing	0	0	0	0
Mean					1.9700
Median					2.0000
Mode					2.00
Std. Deviation					.66299
Variance					.440
Skewness					-.301
Std. Error of Skewness					.687
Kurtosis					.122
Std. Error of Kurtosis					1.334
Range					2.10
Minimum					.80
Maximum					2.90

Table 125. Statistical descriptions of public wall widths in the EB.

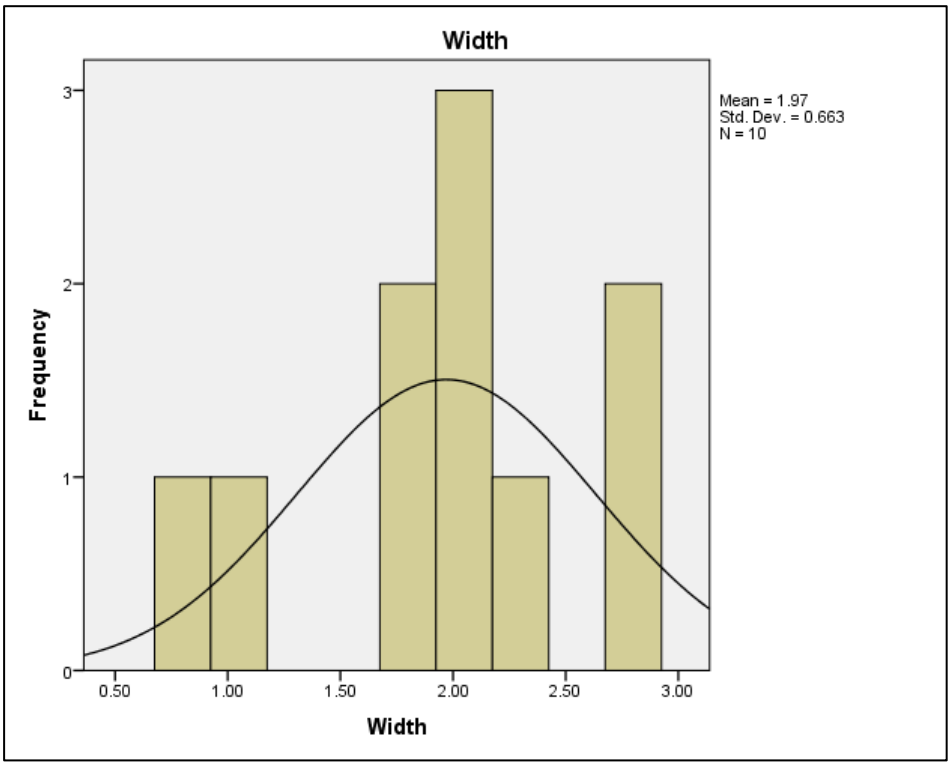

Figure 96. Histogram showing the frequencies of public wall widths in the EB.

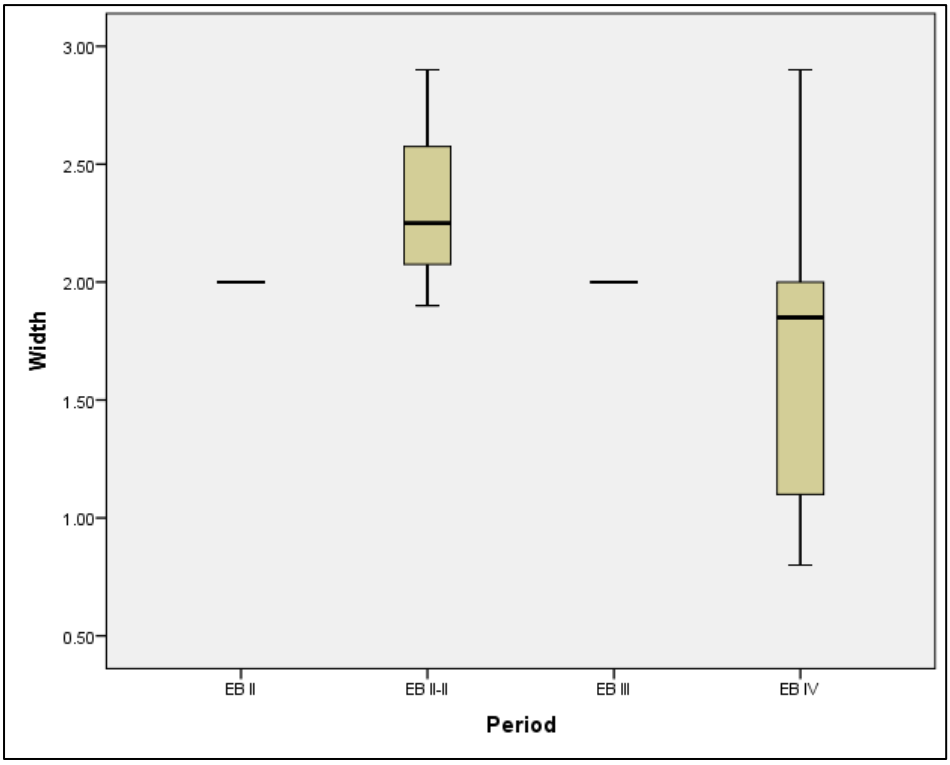

Figure 97. Box-plot showing the differences of public wall widths between different phases of the EB.

		Site	Region	Period	Width	Building
N	Valid	24	24	24	24	24
	Missing	0	0	0	0	0
Mean					3.2496	
Std. Error of Mean					.58563	
Median					2.1500	
Mode					1.25[a]	
Std. Deviation					2.86900	
Variance					8.231	
Skewness					1.505	
Std. Error of Skewness					.472	
Kurtosis					1.218	
Std. Error of Kurtosis					.918	
Range					9.35	
Minimum					.65	
Maximum					10.00	

a. Multiple modes exist. The smallest value is shown

Table 126. Statistical descriptions of public wall widths in the MB.

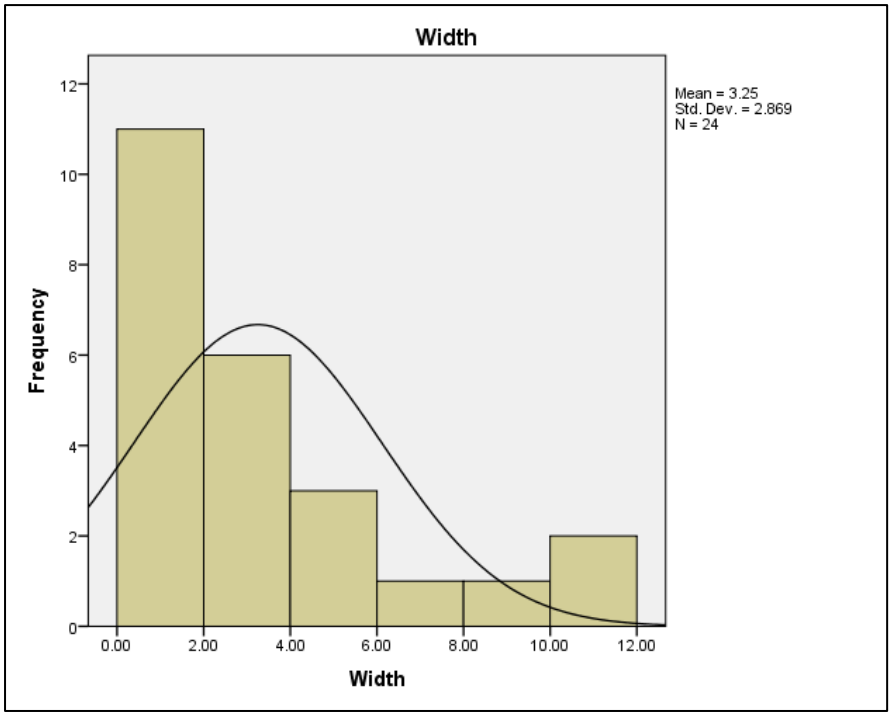

Figure 98. Histogram showing the frequencies of public wall widths in the MB.

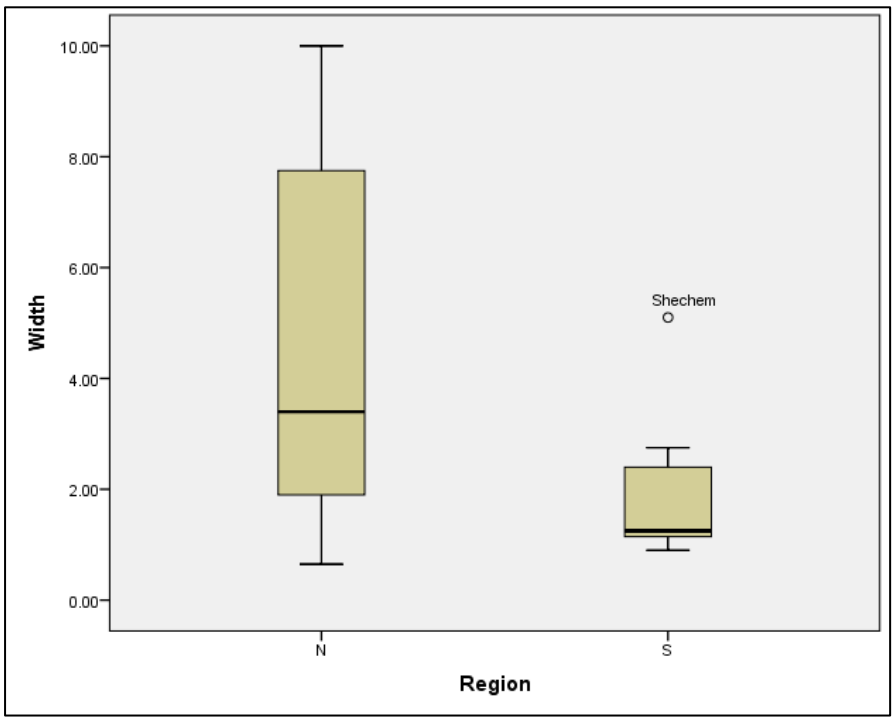

Figure 99. Box-plot showing the difference in public wall widths between the northern and southern Levant in the MB.

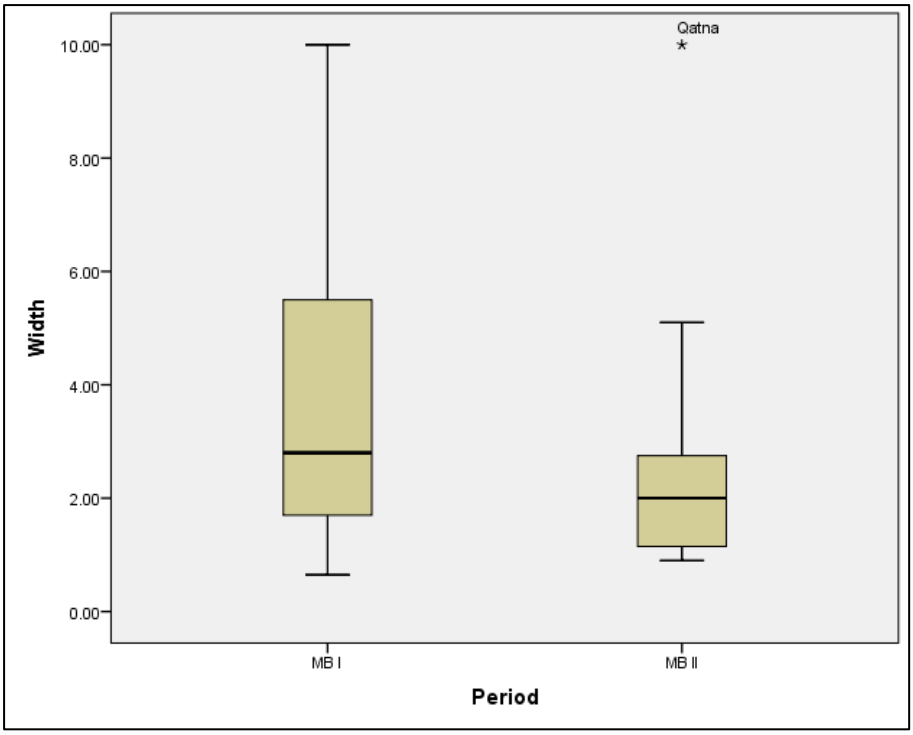

Figure 100. Box-plot showing the difference in public wall widths between MB I and MB II.

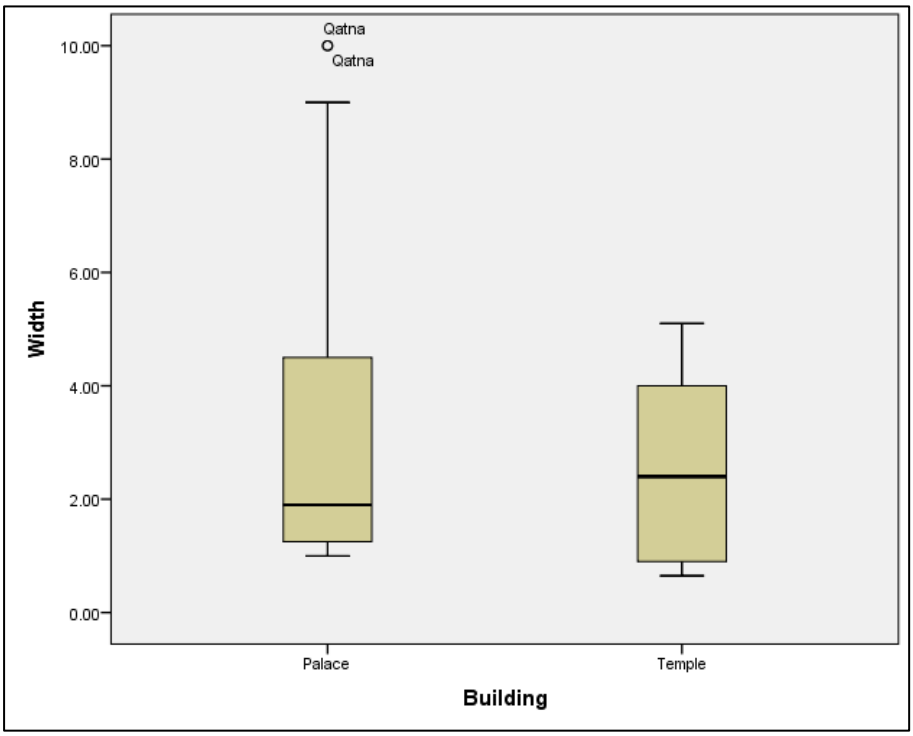

Figure 101. Box-plot showing the difference in wall widths between palaces and temples in the MB.

Miscellaneous walls

This database includes various types of walls that do not full under the previous classifications, and since it comprises a variety of wall types, I made no statistical descriptions for it.

Table 127. Dimensions of miscellaneous walls in the Levant.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Alalakh	EB I		1.45			Domestic		Stratum XIV; Woolley 1955, 14
Yarmut	EB III		2			Enclosure Wall		Reinforced by buttresses 2m apart, projecting 1.9 inward; Herzog 1997
Arqa	EB IV		0.7		stone	Domestic		Thalmann 2006, 21; average house wall thicknesses
Arqa	EB IV			2	stone	Domestic		Stratum 16, stone walls (Thalmann 1991, 27)
Arqa	EB IV		0.8			Wall	W	Thalmann 2006, 22; Wall 16.45
Alalakh	MB		4.5			City Wall	NW-SE	Yener 2010, 25; casemate
Aphek	MB I		0.8		stone	Courtyard Wall	NW	Palace courtyard (421/60); A XIVA; Yadin 2009
Lachish	MB I		0.5	*4*	stone	Wall		Area D; walls 7045,7115; one brick wide; parallel; Ussishkin 2004
Lachish	MB I		1.75		stone	Wall		Area D; wall 9510; stone, terrace? Ussishkin 2004
Poleg	MB I		2.7			City Wall	E	Kochavi *et. al.* 1979, 133
Poleg	MB I		5			Wall	SW	Kochavi *et. al.* 1979, 133
Qatna	MB I		0.95-1.1		stone	Wall		Wall M1300; Al-Maqdissi & Badawi 2002, 49; N wall Room loci S1305-1306
Beit Mirsim	MB I/II		0.8			Domestic		Albright 1933
Hadidi	MB I/II		*0.5*		stone	Domestic		Area B; Dornemann 1979, 132; walls 1.5 bricks wide
Haror	MB I/II		1.2		stone	enclosure	SW	lower city; around a cultic/ceremonial complex; Oren 1993; 1996
Ifshar	MB I/II		0.4		stone	Wall		mud plastered, sometimes painted with white or red; Paley & Porat 1993; 1997
Ifshar	MB I/II		0.6		stone	Wall		mud plastered, sometimes painted with white or red; Paley & Porat 1993; 1997
Ifshar	MB I/II		1		stone	Wall		mud plastered, sometimes painted with white or red; Paley & Porat 1993; 1997

Table 127 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Pella	MB I/II		1.5			Wall	S, N-S	Casemate divider?; Integral to Wall 10; McLaren 2003
Ajjul	MB II		1.78			Courtyard Wall		Palace I; “like the outer wall”; Petrie 1931
Ajjul	MB II		0.56			Wall		Bricks often laid as headers; Petrie 1931
Arqa	MB II		0.5			Domestic		Thalmann 2006, 56; square AK20 Stratum 13
Beth Shean	MB II	5.1	*1*			Domestic		Rowe 1940
Beth Shean	MB II	2.1	0.4			Terrace? Wall		Rowe 1940
Beth Shean	MB II		0.6			Wall		Rowe 1940
Beth Shean	MB II		.6-.7			Wall		3x6 room; Rowe 1940
Bethel	MB II		1.25			Domestic		Kelso 1968
Bethel	MB II		1.07			Wall		stone socle; Kelso 1968
Lachish	MB II		0.36		stone	Wall		Area D; wall 7121; one brick wide; Ussishkin 2004
Michal	MB II		0.64	*3.27*	none	Retaining Wall	N	Wall S156; ST.XVII; hamra brick; supporting the platform 782 at the junction with rampart fill; Herzog 1989
Michal	MB II		0.8		stone	wall	C	Wall N156; St.XVII; two rows of fieldstones with hamra brick superstructure; Herzog 1989
Nagila	MB II		1.5			Wall		wall of large building; Amiran & Eitan 1993
Pella	MB II		1.05	*1.42*	stone	Domestic	SE, E-W	Wall 10; 8 courses of hard, light-brown; McLaren 2003
Shechem	MB II		0.4		stone	Partition		XX; wall 974; Campbell 2002
Shechem	MB II		0.5		stone	Partition		XX; walls 967, 941 and 965; Campbell 2002
Shechem	MB II		0.6		stone	Partition		XX; 970 and 980; Campbell 2002
Shechem	MB II		1.1	*1.5*	stone	Wall		XX; 989; mudbrick super laid in alternating courses of light and dark; wall 989 1m wide; Campbell 2002
Shechem	MB II		0.7		stone	Wall		XX; 958a, 904b and 934; Campbell 2002
Ta'anach	MB II-III		0.75		stone	Wall	N-S	along street; Lapp 1964; 1967; 1969

Table 127 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Ta'anach	MB II-III		0.8		stone	Wall	E-W	Lapp 1964; 1967; 1969
Ta'anach	MB II-III		0.35		stone	Wall		Lapp 1964; 1967; 1969
Beth Shean	MB III		.9-1.1			Wall		Building 7x7; Rowe 1940
Bethel	MB III		0.75			Courtyard Wall		N wall of courtyard (P. House); Kelso 1968
Bethel	MB III		1.4			Wall		Kelso 1968
Bethel	LB		.70-.80			Domestic		Kelso 1968
Qatna	LB	*7.9*	0.75			Wall		Luciani 2002, 152; Building 5; Wall 1143
Qatna	LB	*12.2*	1			Wall		Luciani 2002, 152; Building 5; Wall 1152
Qatna	LB		5.9			Wall		Luciani 2002, 147; Room A, Building 6; plastered with lime or chalk; Wall 1378
Qatna	LB		1.15			Wall		Luciani 2002, 147; Room A, Building 6; plastered with lime or chalk; Walls 1345, 1421, 1422

2.3 DIMENSIONS OF ARCHITECTURE

This database contains the dimensions of structures, both interior and exterior, wherever these data were available from 51 sites ranging from the EB through LB. The 215 cases include the dimensions of: gates, towers (including 'bastions'), earthworks, public buildings, interiors of public buildings, courtyards, miscellaneous external dimensions, and miscellaneous internal dimensions. Each of the following tables is arranged in chronological order. Where appropriate, I provide statistical descriptions following each category.

Gates

Table 128. Dimensions of gates in the Levant.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Arad	EB II		*5.5*			Gate	N	St.III; flanked by semi-circular tower; 2.8w passage; Herzog 1997
Arad	EB II		*5.5*			Gate	S	St.III; flanked by rect tower; 3.4w passage; Herzog 1997
Far'ah, el- (N)	EB II	*18*	*7.5*		stone	Gate	W	2.5w opening flanked by towers; passageway 7 x 3.5; *in situ* door sockets; Mallet 1987
Megiddo	EB II					Gate	E	St.XVIIIB; 1.7w opening; flanked by towers(?); at turning point in wall; Loud 1948
Alalakh	LB	13	11		stone	Gate		Woolley 1955, 161; Stratum IV
Hazor	LB	20	16		Built of ashlars	Gates	NE	1-2; same plan as 3; Yadin 1972
Akko	MB I	20		*3*		Gate	NW	Sea' gate; two chambers, three pairs of asymmetrical pilasters; stone fore-chamber, brick 2nd chamber; Dothan 1993
Ashkelon	MB I	20	12			Gate	N	1; corbeled vault 3 x 9; 2.3m passage; Voss 2002
Ashkelon	MB I	27			Ashlar blocks	Gate	N	2; barrel vault (9m long); indirect approach; sandstone ashlar blocks 80x40-50x25-30 (3:2:1?); 2.8m towers; Voss 2002

Table 128 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Dan	MB I	15.45	13.5	*7*		Gate	E, N-S	2 towers 5.15w, flanking recessed arched gateway of same width, recessed 1.15 (E) .8 (W); arch is 3 radial courses 1.25 at spring .95 at top and spanning 2.4; entrance 3.1h (E) 2.5h (C,W); passage 10.5L; 3 arches; Biran 1994; Brian *et al.* 1996
Ebla	MB I	10.5				Gate	SW, WSW-ENE	Damascus Gate; outer gateway, four-pier; 3w entries; door sockets just inside first piers; trapazoidal courtyard between inner (six-pier) and outer gateways; Matthiae 2000
Ebla	MB I	20				Gate	NE	Euphrates Gate; Six-Pier; 3.2w(?) passage; Matthiae 2000
Poleg	MB I					Gate	NW	righthand side of gatehouse, indirect approach; Gophna 1993
Ashkelon	MB I/II					Gate	N	3; 5.5m wide entry; separate lower gate; Voss 2002
Hazor	MB I/II	*19*	8		trimmed stone 60h	Gate	NE	4; Flanked by 8 x 8 towers; recessed 22m from slope; gentle ascent; connected to rampart by walls (bridging depression) each 1.5w with 1.7 between (=5w); Yadin 1972
Megiddo	MB I	*10*	*10*			Gate	N	AA XIII; Single chamber, indirect entry, stepped approach; 1 tower; two sets of piers(?); Loud 1948
Yavneh-Yam	MB I/II					Gate	E	III; 6 pier; flanked by towers; thick rubble walls on outside; Kaplan 1993
Alalakh	MB II		23		stone	Gate		Woolley 1955, 147; Stratum VII
Ashkelon	MB II	3.9	3.7			Gate	N	4; 1.5m entry; Voss 2002
Beit Mirsim	MB II					Gate		One(?) pair of piers; Albright 1933
Beth Shemesh	MB II	16.5	12.4			Fort-gate		Herzog 1997
Bethel	MB II	14.6	9.7	2		Gate	NW	9.2w in W; Kelso 1968
Gezer	MB II	22	14			Gate	S	Six-pier; 2.9w entry flanked by towers; Dever 1974
Hazor	MB II	20	16			Gate	NE	3; three pairs of pilasters (each 2.25L); passage 3m; flanked by towers 16x6.5, divided into two interconnected chambers with entrance in the passage; indirect entry but with art. Platform in front; Yadin 1972

Table 128 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Jaffa	MB II					Gate		(three pier?); St.VIII; 2.3m long pilasters, projecting 1.10, 2.65 between; Kaplan & Ritter-Kaplan 1993
Yavneh-Yam	MB II					Gate	E	II; 4 pier; flanked by towers; thick rubble walls on outside; one tower with staircase (?); Kaplan 1993
Far'ah, el- (N)	MB II-III	6	3.5			Gate	W	Directly on the EB brick bastion; direct-entrance; protrudes 5m from wall; single broadroom (dim.); outer doorway 2.5w inner 3w; walls 1.5-1.8 thick; Mallet 1987
Shechem	MB II	18.3	16.8			Gate	NW	16.2 wide in interior; towers project 4.3-5 outward from Wall A; Six-piers (made of orthostats, 2m deep, 2.8m passage), towers flanked the whole length (5.5 and 4.9 wide on exterior), inner staircases; Herzog 1997
Shechem	MB II	18.2	13.8			Gate	E	17.8 and 13.3 on smaller sides; Four-piers; in Wall B (XV); towers projected 2.5-9m out from wall B; Herzog 1997

Statistical descriptions of gates

		Site	Period	Length	Width	Piers	Entry
N	Valid	29	29	21	22	29	14
	Missing	0	0	8	7	0	15
Mean				15.7595	10.7864		2.8214
Std. Error of Mean				1.31968	1.06055		.25009
Median				18.0000	10.5000		2.8000
Mode				20.00	3.70[a]		2.50[a]
Std. Deviation				6.04755	4.97444		.93577
Variance				36.573	24.745		.876
Skewness				-.626	.411		1.695
Std. Error of Skewness				.501	.491		.597
Kurtosis				.020	.149		5.156
Std. Error of Kurtosis				.972	.953		1.154
Range				23.10	19.50		4.00
Minimum				3.90	3.50		1.50
Maximum				27.00	23.00		5.50

a. Multiple modes exist. The smallest value is shown

Table 129. Statistical descriptions of gates in the Levant.

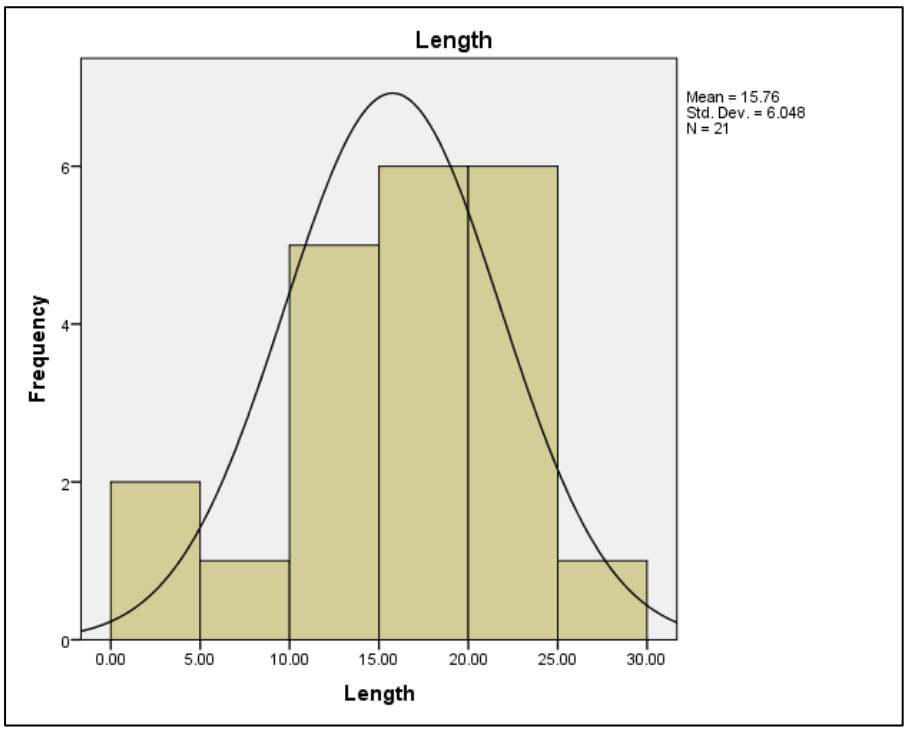

Figure 102. Histogram showing the frequencies of lengths of gates in the Levant.

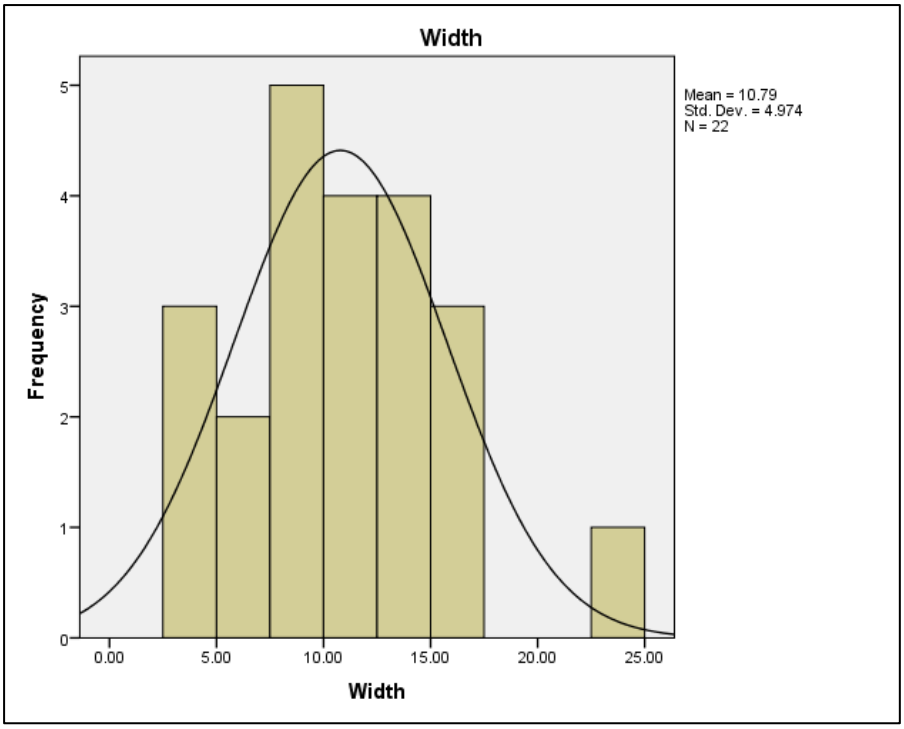

Figure 103. Histogram showing the frequencies of widths of gates in the Levant.

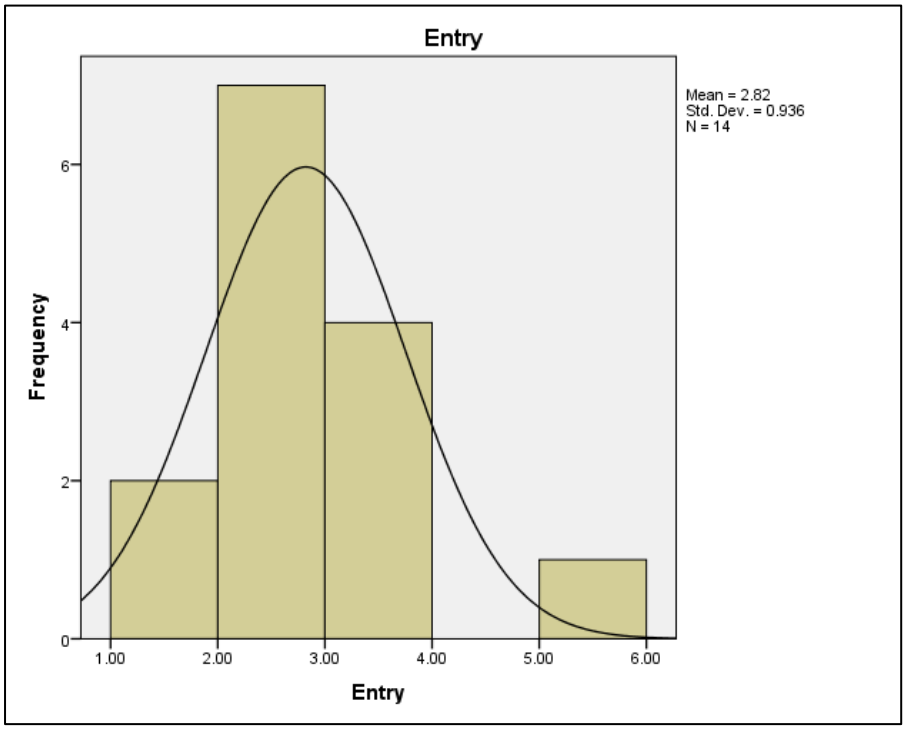

Figure 104. Histogram showing the frequencies of the size of entry in gates in the Levant.

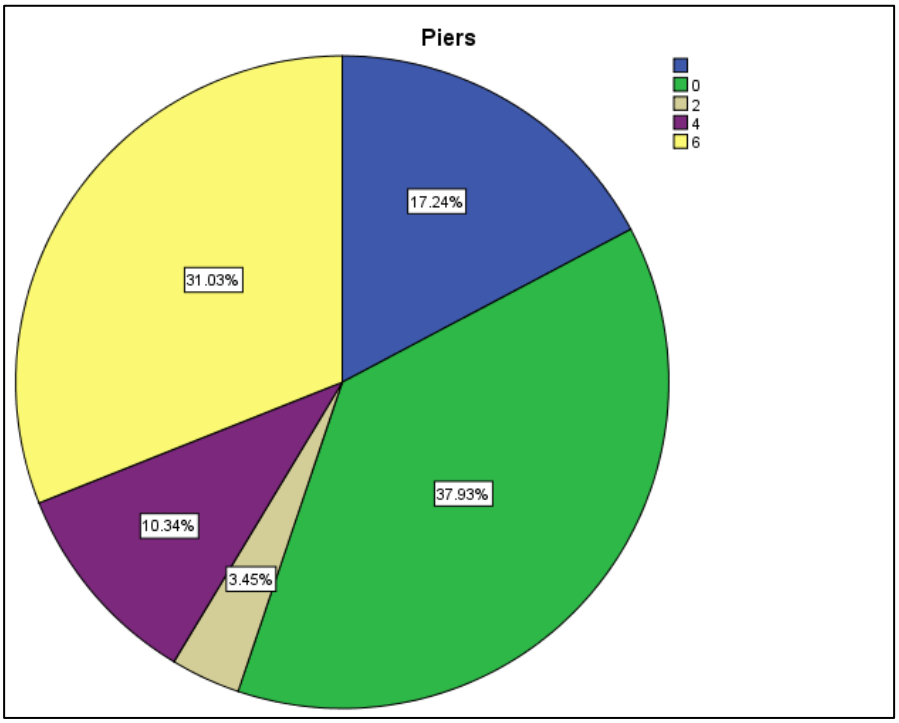

Figure 105. Pie chart showing the percentages of the number of piers in gates in the Levant.

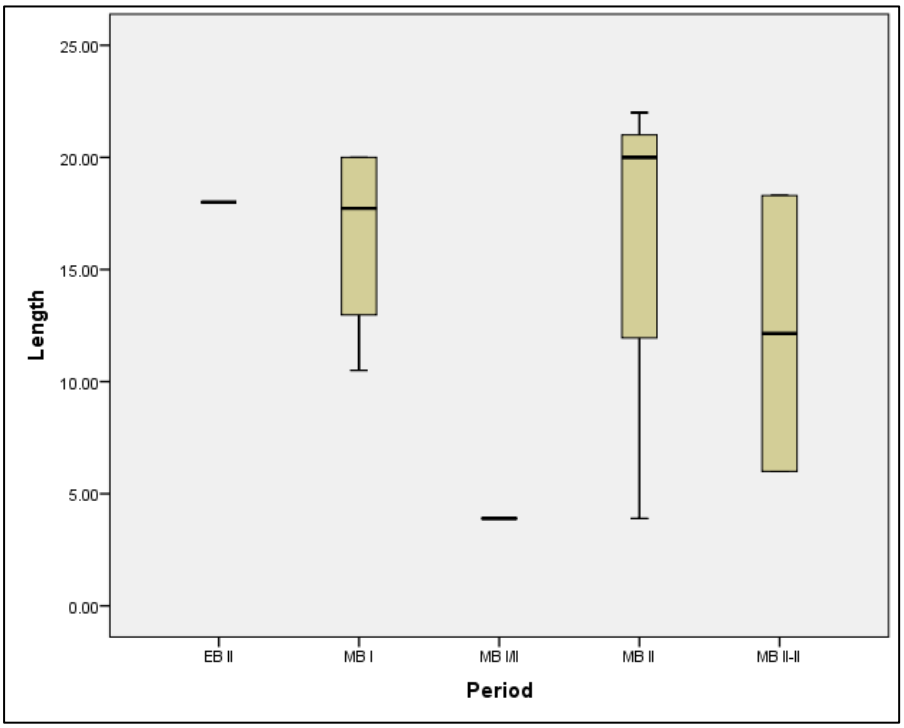

Figure 106. Box-plot showing the differences in the lengths of gates between different periods.

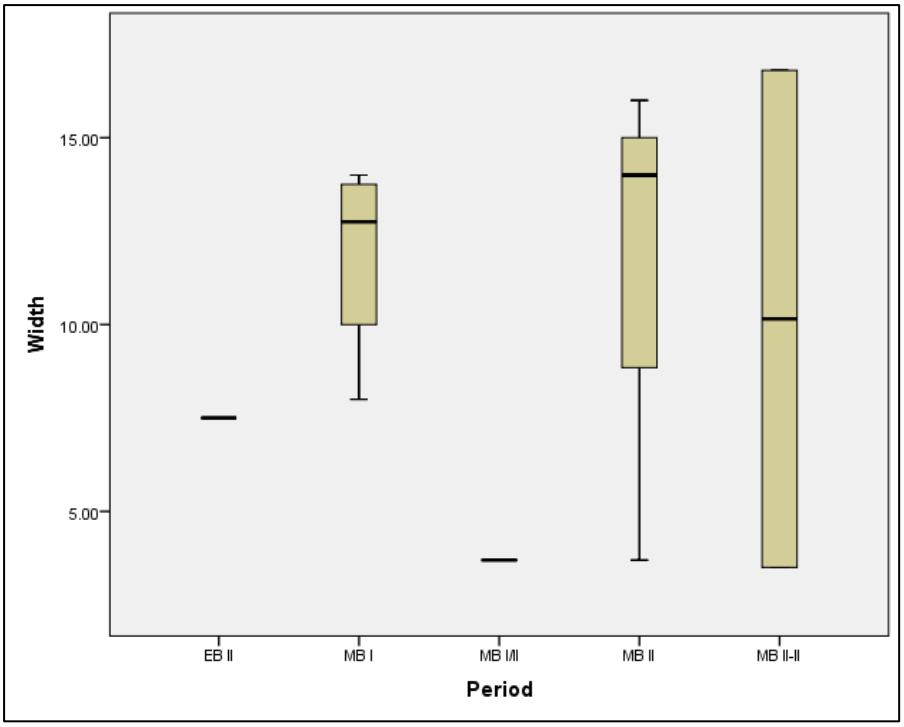

Figure 107. Box-plot showing the differences in the widths of gates between different periods.

Towers

Table 130. Dimensions of towers (including bastions) in the Levant.

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Arad	EB II	18	9.5			Bastion	C	St.II; connected to water reservoir; walls 1.5-1.7w; Herzog 1997
Arad	EB II		5.5			Tower		St.III; semi-circular/elliptical towers, inner chamber accessible through passage .6-.7 through wall, 20m apart on circular sections, 35m on straight; Herzog 1997
Hesi, el-	EB II-III	40	10			Bastion	SE	two rooms 4x5 connected by 2w corridor; Bliss 1894,85-6
Hesi, el-	EB II-III	18	9			Bastion	NE	Bliss 1894,85-6
Jericho	EB II-III	16	9			Bastion	SE	one room 6x4.5 and two 1w; controlled water spring; Kenyon 1981
Jericho	EB II-III	12.2	5.8			Bastion	NW	Kenyon 1981
Ta'anach	EB II-III	20	10			Bastion		Herzog 1997
Ta'anach	EB II-III	20.5	9.85			Tower		Phase III, with Wall 28; Lapp 1969
Yarmut	EB II-III	25	13			Bastion	W	35x20 with stone glacis at base; Herzog 1997
Yarmut	EB II-III	12	8.2			Bastion	W	“buttress”; Herzog 1997
Yarmut	EB II-III	15	9			Bastion	W	“buttress”; Herzog 1997
‘Ai	EB III	30	9	*4*		Bastion	W	Urban A; Not projecting outward, but within city; Herzog 1997
Halif	EB III		7.5			Bastion		St.XV
Kh. Zeiraqoun	EB III	30	7.5			Bastion	W, N-S	upper city; Herzog 1997
Yarmut	EB III	30	8		cyclopean (outer)	Bastion		about a dozen observed; free-standing and not integrated into wall; 30-40x8-12.5; Herzog 1997
Yarmut	EB III	40	12.5		cyclopean (outer)	Bastion		about a dozen observed; free-standing and not integrated into wall; 30-40x8-12.5; Herzog 1997
Kh. Iskander	EB IV	16	6			Bastion		Herzog 1997
Akko	MB I	14	19	*3*		Bastion	N	Fortress, Building A; Dothan 1993

Table 130 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Mevorakh	MB I					Fortress		St.XV-XIV; Stern 1984
Poleg	MB I	15	8.5	*2*		Bastion	SW	Adjoining walls 5w, 3.4w; Kochavi *et. al.* 1979:133; Herzog 1997; Gophna 1993
Zeror	MB I	*15*	7.4-7.7		stone	Tower	W, NNE-SSW	Ohata 1970, 58-61
Beit Mirsim	MB I/II	10.0 – 10.5	6			Towers	SE	project ca. 1.5m into the city and at least as much outside; 23m apart; Albright 1933
Ebla	MB I/II	27	12.5			Bastion	SE	Bastion M; long side aligned with rampart; exterior walls 3w; six rooms paved with bricks; second story; Matthiae 2000
Ebla	MB I/II	26	16			Bastion	W	W Fortress; walls slightly less than 3w; bricks similar to other MB; Matthiae 2000
Ebla	MB I/II	25	12			Bastions		Typical; average of 250-300m apart; staircase on one side of a court; internal plan of two rows with three rooms each; Matthiae 2000
Hadidi	MB I/II		7		stone	Tower?		Dornemann 1979, 141
Jericho	MB I/II	16.25	10			Tower		Garstang 1932
Jericho	MB I/II	7.5				Tower	SW	Marchetti & Yasin 2000
Megiddo	MB I/II	*10.5*	*5*		stone	Tower	E, N-S	BB XII; small and large rooms; Loud 1948
Pella	MB I/II	12	8	*5*	stone	Tower	S, N-S	Tower 1; XXVIIIC; 1h foundation; 43 courses in N; revetment skin of 1 row, 18 courses on W; 5 courses of stone cut into bedrock; McLaren 2003
Qashish	MB I/II	5.5	4.5			Tower	NE	projects 2.5m inward, and possibly 1.5 outward on the E side (flush with W); small cell inside 1.8x.7; Ben-Tor *et al.* 2003
Arqa	MB II	12	*6*		stone	Bastion?		10-12xmore than 6; Stratum 13 (Thalmann 2010, 99)
Beth Shemesh	MB II	11	7			Bastion	S	Herzog 1997
Beth Shemesh	MB II	9	5			Bastion	NE	Herzog 1997
Beth Shemesh	MB II	16	8			Bastion	W	Herzog 1997
Gezer	MB II	*30*	16			Tower	S	5017; Dever 1974

Table 130 (cont.).

Site	Period	Length	Width	Height	Foundation	Architecture	Orientation/ Location	Comment
Jerusalem	MB II	16	16	*4*	Boulders	Tower		Spring Tower; large rock boulders; walls 5.5-7w; Reich & Shukron 2010,144
Mevorakh	MB II					Fortress		St.XIII; Stern 1984
Nagila	MB II	*15*	7.5			Bastion		Herzog 1997; internal division of 3(?) rooms
Yoqneam	MB II	4	4			Tower		XXIII; Ben-Tor *et al.* 2005
Far'ah, el- (N)	MB II-III	12.7	3			Bastion	SW	Containing 2 interconnected rooms (4.5 x 3.5, 1.8 x 3.5) accessible from inside the city; Mallet 1987

Statistical descriptions of towers and bastions

Towers

		Site	Period	Length	Width	Architecture
N	Valid	9	9	7	8	9
	Missing	0	0	2	1	0
Mean				14.5000	8.1313	
Std. Error of Mean				2.81524	1.25581	
Median				12.0000	7.2750	
Mode				7.50[a]	5.00[a]	
Std. Deviation				7.44843	3.55195	
Variance				55.479	12.616	
Skewness				1.824	1.843	
Std. Error of Skewness				.794	.752	
Kurtosis				3.811	3.743	
Std. Error of Kurtosis				1.587	1.481	
Range				22.50	11.00	
Minimum				7.50	5.00	
Maximum				30.00	16.00	

a. Multiple modes exist. The smallest value is shown

Table 131. Statistical description of towers in the MB

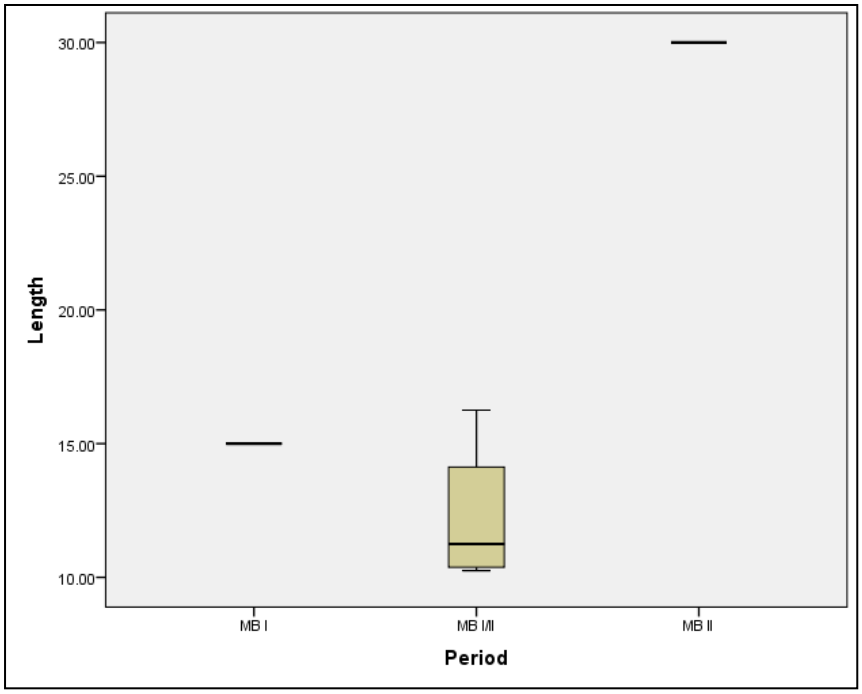

Figure 108. Box-plot showing the differences in length of towers between different phases of the MB.

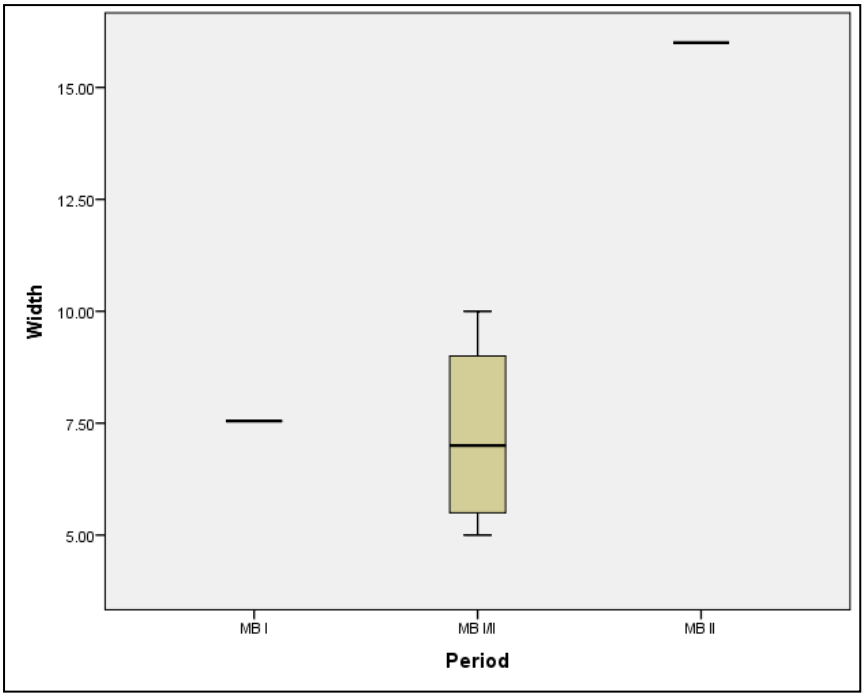

Figure 109. Box-plot showing the differences in width of towers between different phases of the MB.

Bastions

		Site	Period	Length	Width	Architecture
N	Valid	23	23	22	23	23
	Missing	0	0	1	0	0
Mean				19.4045	8.6087	
Std. Error of Mean				1.93416	.66067	
Median				16.0000	8.2000	
Mode				15.00[a]	9.00	
Std. Deviation				9.07201	3.16844	
Variance				82.301	10.039	
Skewness				1.226	1.537	
Std. Error of Skewness				.491	.481	
Kurtosis				.529	4.601	
Std. Error of Kurtosis				.953	.935	
Range				31.00	16.00	
Minimum				9.00	3.00	
Maximum				40.00	19.00	

a. Multiple modes exist. The smallest value is shown

Table 132. Statistical descriptions of bastions in the Levant.

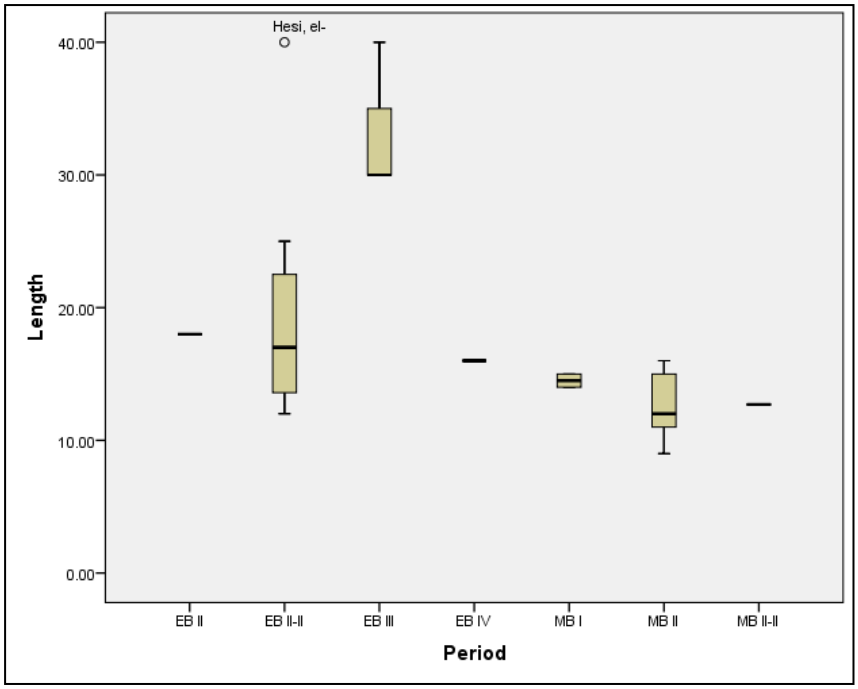

Figure 110. Box-plot showing the differences in the length of bastions between different periods.

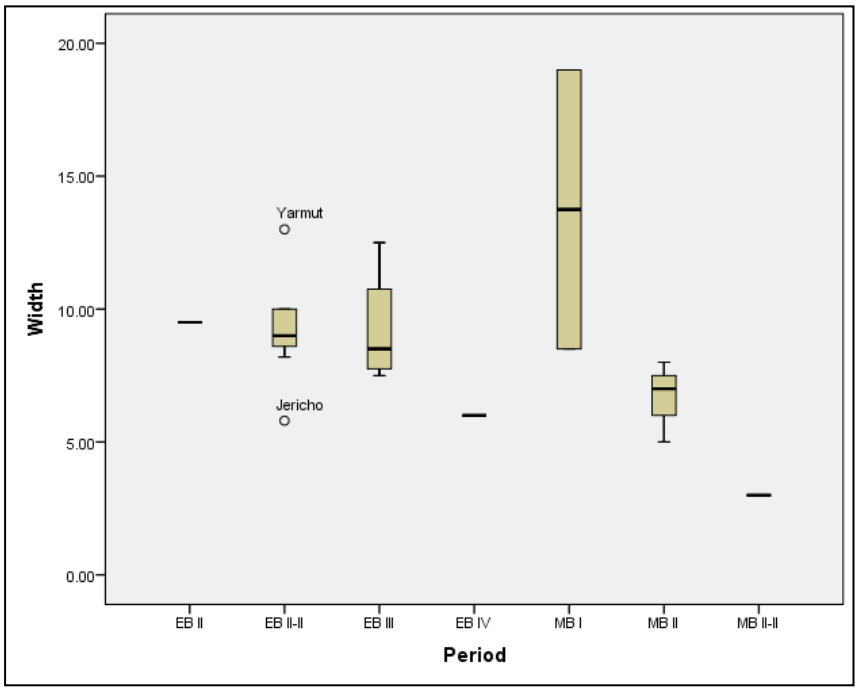

Figure 111 Box-plot showing the differences in the width of bastions between different periods.

Earthworks

Table 133. Dimensions of earthworks in the Levant.

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Akko	MB I						Earthen Rampart		clay/hamra; Dothan 1993
Achziv	MB II		20	10			Earthen Rampart		embankment, core, glacis, revetment, fosse; Prausnitz 1975
Ajjul	MB II	*914.4*	9.14	6.1			Fosse	N	With a 25? ft-wide causeway; Petrie 1933
Ashkelon	MB I						Earthen Rampart	N	fosse, 20m wide sandstone causeway; Voss 2002
Batash	MB II		20	*4.5*			Earthen Rampart		alternating layers; Mazar 1997
Beit Mirsim	MB II						Earthen Rampart		*terre pisee* with stone revetment; stone glacis? Albright 1933
Dan	MB I		27	*10*			Earthen Rampart		6.5m wide stone core; Biran *et al.* 1996
Ebla	MB I		31	*14*			Earthen Glacis		Acropolis; stone revetment 2w; 'citadel' revetment = mudbrick glacis 5.7h 7w atop glacis at foot of citadel; Matthiae 2000
Ebla	MB I		50	12			Earthen Rampart		see Burke 2008:199; cf. Matthiae 1979:15; 20-22h over plain; also stone revetment at base; core = EB IV wall
Far'ah, el- (N)	MB II-III						Earthen 'Glacis'	W, NW	compact, sterile black earth; actually seems to be an earthen counterscarp across a 10w stone-lined fosse (which narrows near gate); Mallet 1987
Far'ah, el- (N)	MB II-III		16				Earthen 'Glacis'	W, NW	sterile red earth; crescent-shaped; covered preceding to the wall; heavy stone revetment at base 2.8h; Mallet 1987
Gerisa	MB I						Earthen Rampart		kurkar surface, 1-2 courses of bricks above which were alternating layers of earth and sand 2-3h; Herzog 1993
Gezer	MB II		10	5			Earthen Rampart		45° slope, level at top; Dever *et al.* 1970
Halif	EB III						Glacis		with retaining wall at foot; Seger et al. 1990
Haror	MB II	1115	20	7.0-8.0			Earthen Rampart		trapezoidal; Oren 1996,2

Table 133 (cont.).

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Hazor	MB I/II		90	15			Earthen Rampart	W	S larger than N; 20w at top; In Area H (N): 39(?)w 8.5h; 6w at top; outer face covered by beaten chalky layer .15; brick core 8w at top 11-16w at bottom, structural casemate 3x5; Yadin 1972
Hazor	MB I/II	600	80	*15*			Fosse	W	40w at bottom; vol. 540,000; Yadin 1972
Hesi, el-	EB II-III						Glacis		Herzog 1997
Jaffa	MB II						Earthen Rampart		crushed kurkar; built against gate; Kaplan & Ritter-Kaplan 1993
Jericho	MB I/II		24	*7*			Earthen Rampart	W	Marchetti 2003
Jericho	MB II-III						Earthen Rampart		Mudbrick glacis (1.25w) several rows, revetment wall, etc.; cf. Kenyon1981
Kabri	MB I/II		35	*6.0-8.0*			Earthen Rampart		Kempinski 2002
Keisan	MB II		21				Earthen Rampart		Supp.; supported wall; 21m outward, revetment, plaster and pebble glacis; 2m thick near wall; Humbert 1993
Keisan	MB II		25				Earthen Rampart		Latter; another revetment at base; Humbert1993
Lachish	MB II		30	*7*			Earthen Rampart	NW	from top to fosse; might have originally stood 16.6h from valley; lime-plastered glacis 29°; Tufnell 1958, 45ff
Lachish	MB II		9	2			Fosse	NW	bound by revetment 2.5w; Ussishkin 2004
Mevorakh	MB II						Earthen Rampart		rectilinear; inner core strengthened by brick walls of previous strata; having a clayey glacis; Stern 1984
Michal	MB II						Earthen Rampart		rectilinear?; Herzog 1989
Nagila	MB II						Earthen Rampart		core of piled earth on mound slope with fort. Wall built in its inner slope and having a glacis layer on top and face of wall, with fosse; Amiran & Eitan 1993
Poran	MB I/II						Earthen Rampart		Supplementary, built against and using the EB brick wall; Gophna 1992
Qashish	MB I/II						Glacis		mostly crushed stones, 45°; Ben-Tor *et al.* 2003
Rehov	EB II-III		13	3.5			Earthen 'Glacis'	SW Upper Mound	Mazar 1993

Table 133 (cont.).

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Shechem	MB II		*27*				Earthen Rampart		XIX; freestanding; Herzog 1997; 37m including Walls C and D (Campbell 2002, 45); with 5h retaining wall C
Ta'anach	EB II-III						Glacis	W	rubble heaped against wall, plastered over; Herzog 1997
Ta'anach	MB II-III		*20*				Earthen Rampart		essentially of three phases (?); Herzog 1997
Yarmut	EB II-III		15	*5*			Earthen 'Glacis'		30°; earth and stone; Herzog 1997
Yavneh-Yam	MB II						Earthen Rampart		Rectalinear; Kaplan 1993
Yoqneam	MB I						Earthen Rampart	N	XXIII; Supplementary, mostly crushed limestone fill with glacis coating; Ben-Tor *et al.* 2005
Yoqneam	MB II						Earthen Rampart	N	XXIII; Supplementary, above earlier; several layers of fill, mostly small stones, mudbrick material and white glacis; Ben-Tor *et al.* 2005
Zeror	MB I						Earthen Rampart		Ohata 1970: 58-61

Public buildings (exterior)

Table 134. External dimensions of public buildings in the Levant.

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
'Ai	EB II	23	10				Temple	W	Urban C; walls 2w; flat stones; temenos; Herzog 1997
Kh. Zeiraqoun	EB III	11	10				Temple	W, Angled	Upper city; main broad room and broad ante-chamber; part of cultic complex; Herzog 1997
Kh. Zeiraqoun	EB III	12.5	11				Temple	W, Angled	Upper city; broad room and interleading room; part of cultic complex; Herzog 1997
Megiddo	EB III	18.4	17.7			large stones	Temple	E	4040; St.XVII; walls 2w; main hall 13.7x9.6, front porch with open portico; Loud 1948
Yarmut	EB III	85	70				Administrative Building?		2m wide enclosure wall; at least 2 large courtyards and series of rooms; Herzog 1997
Yarmut	EB III	13.5	6.75				Temple	W	Area C; broad-room house so-called "White Building"; Herzog1997
Ebla	EB IV	24	17				Temple		Red Temple; Area D; Kuras' Temple (?); red bricks; deep vestibule; Matthiae 2000
Bethel	MB I	11.35	3.5				Temple	NW	Identical in size with the N corridor of the gateway that rests upon it; E wall 3.25m long with 1m doorway; Kelso 1968
Hayyat, el-	MB I	7.6	7.6				Temple		4; mudbrick; inset-offset niching on outside; benches and brick alter inside; Bourke 2006; Maier 2010
Hayyat, el-	MB I	7.6	7.6				Temple		*5; terre pisee* construction; two projecting 'buttresses' at entrance; surrounded by *tp* enclosure wall; Bourke 2006; Maeir 2010
Qatna	MB I	36	36				Palace		Op.G; Novak & Pfalzner 2002:,80; Hall C
Qatna	MB I	13	4.2				Palace		Op.H; Barro 2002, 117; Room AA
Qatna	MB I	4.2	3.6				Palace		Op.H; Barro 2002, 117; Room AC
Qatna	MB I	9.4	9.1				Palace		Op.H; Barro 2002, 117; Room Z
Qatna	MB I	13	4.2				Palace		Op.H; Barro 2002, 116; Rooms Y and AB
Ebla	MB I/II	33	20				Temple	N-S	Temple P2; lower city; hall 20x12; Matthiae 1995,173
Ebla	MB I/II	52.5	42				Temple	E-W	Monument P3; lower city; inside 23x12; Matthiae 1995,175; sides angled upward

Table 134 (cont.).

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Ajjul	MB II	50.3	38.7			sandstone slabs 76x15-23	Palace	N, E-W	Palace I; Cross-walls 1.15 thick; Petrie 1933; square court surrounded by chambers
Ajjul	MB II	20	12.5				Palace	N	Palace II; Petrie 1933
Bethel	MB II	*28*	*5*				Palace		"Haram" area
Hazor	MB II	16.2	11.6			stone	Temple	Angled	Long Temple' Area A; 4 orthostats (.8x.6x.2) in threshold, 2 on either side (1.2x.65x.35); painted plaster inside; Yadin 1972
Hazor	MB II	19.75	18				Temple	NW, Angle	(2175); Area H, S3; main cella 13.5x8.9 with three small rooms in front (middle 4.9x4.3, separated from others, 4.25x2.7, by 1.5 walls), facing onto large open courtyard; Yadin 1972
Hazor	MB II	48.5	24.5				Temple/Palace	Angled	Area F, St.3; walls 2.5-3w; drain below; Yadin 1972
Kitan	MB II	6.9	5.5			stone	Temple	E-W	St.V; megaron; entrance faced east on courtyard; facade and pilasters; Eisenberg 1993
Kitan	MB II	14.3	11.5			stone	Temple	E-W	St.IV; around earlier temple; 2.6w entrance; same sq. bricks as city wall; Eisenberg 1993
Nahariya	MB II	6	6	*0.8*			Temple	S	associated with a 6m dia. Bamah; Yogev 1993
Shechem	MB II	26.3	21.2			Well-dressed	Temple	NW	*Migdal* tower temple; XVI; central-axis access; cella 13.5 x 11; tower-like rooms (7x5) flank entrance; Herzog 1997
Hayyat, el-	MB II-III	11	10			5-course stone	Temple		2; interior walls and floor plastered; exterior walls plastered and painted red; Maier 2010; Bourke 2006
Pella	MB II-III	32	24				Temple	E-W	Migdal; tower in SE, flanking entrance; two rooms; Bourke 2007
Carchemish	LB	18	18				Palace		Woolley 1921, 179
Hazor	LB	18	18				Temple	Angled	Area F, St.2; internal closed courtyard 4x4, walls 2w; Yadin 1972
Hazor	LB						Temple	NW, Angle	Area H, St.1B; main hall 13.3x8, middle room 5.8x5, porch 9.8x4.8; Yadin 1972
Hazor	LB	19.75	18				Temple	NW, Angle	(2133); Area H, St.2; gateway added in courtyard; yadin 1972
Beth Shean	LB I	14.85	14.2-13.25			none	Temple		Amenophis III; = Amenhotep III, excluding ante-room; Mazar & Mulilns 2007

Statistical descriptions of public buildings (exterior)

Palaces

		Site	Period	Length	Width	Architecture
N	Valid	10	10	10	10	10
	Missing	0	0	0	0	0
Mean				27.6900	20.1300	
Std. Error of Mean				7.69973	6.89430	
Median				19.0000	10.8000	
Mode				13.00	4.20	
Std. Deviation				24.34869	21.80168	
Variance				592.859	475.313	
Skewness				1.670	1.562	
Std. Error of Skewness				.687	.687	
Kurtosis				2.849	2.077	
Std. Error of Kurtosis				1.334	1.334	
Range				80.80	66.40	
Minimum				4.20	3.60	
Maximum				85.00	70.00	

Table 135. Statistical descriptions of palaces in the Levant.

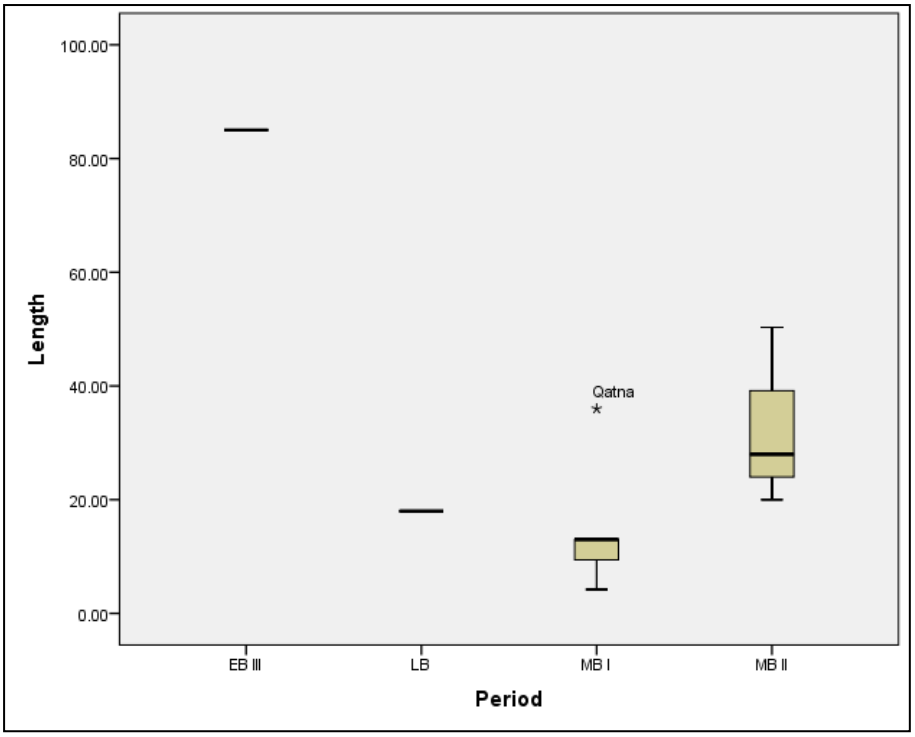

Figure 112. Box-plot showing the differences in the length of palaces between different periods.

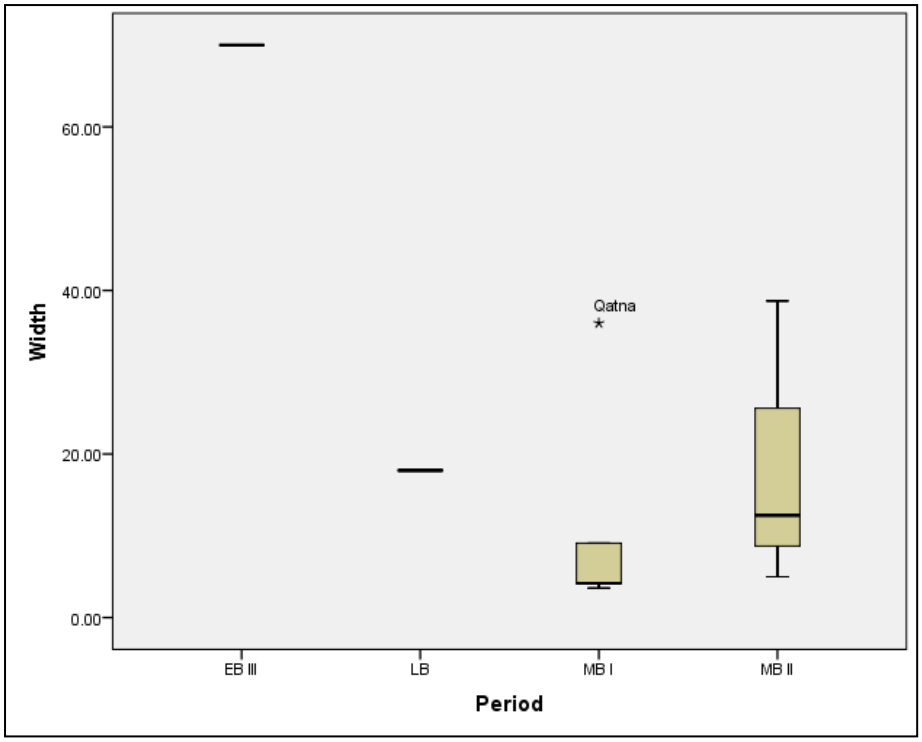

Figure 113. Box-plot showing the differences in the width of palaces between different periods.

Temples

		Site	Period	Length	Width	Architecture
N	Valid	19	19	19	19	19
	Missing	0	0	0	0	0
Mean				18.0605	13.9500	
Std. Error of Mean				2.70445	2.01688	
Median				14.3000	11.0000	
Mode				7.60	7.60[a]	
Std. Deviation				11.78844	8.79136	
Variance				138.967	77.288	
Skewness				1.523	1.951	
Std. Error of Skewness				.524	.524	
Kurtosis				2.776	4.891	
Std. Error of Kurtosis				1.014	1.014	
Range				46.50	36.50	
Minimum				6.00	5.50	
Maximum				52.50	42.00	

a. Multiple modes exist. The smallest value is shown

Table 136. Statistical descriptions of temples in the Levant.

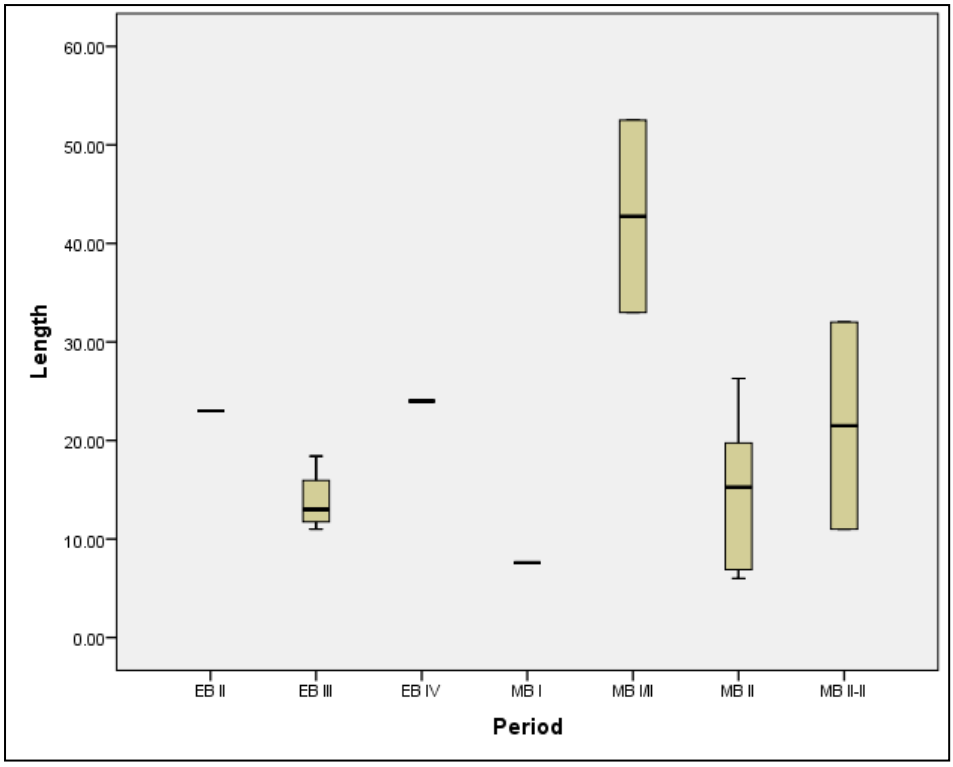

Figure 114. Box-plot showing the differences in the length of temples between different periods.

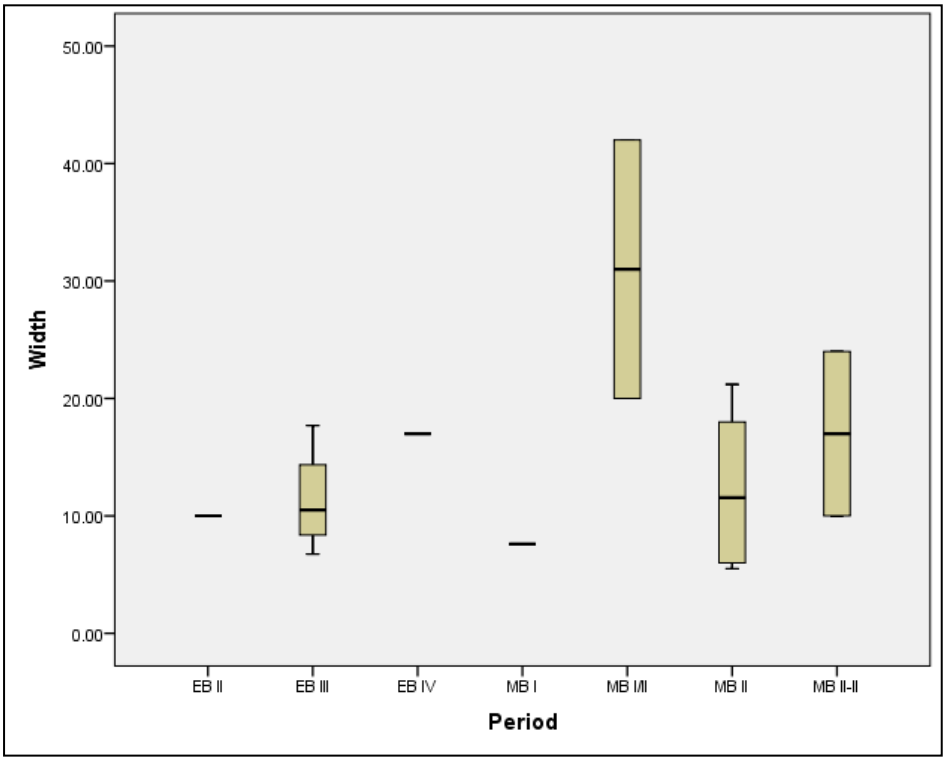

Figure 115. Box-plot showing the differences in the length of temples between different periods.

Public buildings (interior)

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Ajjul	MB II	10.1	2.4				Inner Palace	N	II Long Hall OH; Petrie 1933
Ajjul	MB II	6.7	6.4				Inner Palace	N	II Main Hall OG; Petrie 1933
Alalakh	MB II	20	6				Inner Palace		"Grand Salon"; Woolley 1955, 94; Stratum VII
Alalakh	MB II	11.5	9.65			brick rubble/matting	Inner Temple		sanctuary; Woolley 1955, 59; Stratum VII
Aphek	MB I	18	10				Palace Room	N Acropolis	(6107); X16 Palace III; 2 stone pillar bases, 3m entrance; Yadin 2009
Aphek	MB I	4.5	3.5				Palace Room	N Acropolis	(6184); X16 Palace III, doorway 1.5m; Yadin 2009
Aphek	MB I	5	4				Palace Room	N Acropolis	(6240); X16 Palace III; Yadin 2009
Beit Mirsim	MB I	20	6.5				Inner Palace		Hall; Albright claims it to be late 3rd Mill., but puts it in Strat. G. Of the *Briethaus* type; Albright 1933
Ebla	MB I/II	20	12				Inner Temple	N-S	Temple P2; lower city; hall 20x12; Matthiae 1995,173
Ebla	MB I/II	23	12				Inner Temple	E-W	Monument P3; lower city; inside 23x12; Matthiae 1995,175; sides angled upward
Hazor	LB	13.3	8				Inner Temple	NW, Angle	Area H, St.1B; main hall 13.3x8, middle room 5.8x5, porch 9.8x4.8; Yadin 1972
Hazor	LB	5.8	5				Inner Temple	NW, Angle	Ibid.
Kitan	MB II	4.6	4.3				Inner Temple	E-W	St.V; Eisenberg 1977
Lachish	MB II	3	3				Inner Palace		St.V; unit 3347/5271; Ussishkin 2004
Lachish	MB II	6	6				Inner Palace		St.IV; room 5023; Ussishkin 2004
Lachish	LB	10	5				Inner Temple	N-S	Structure I; Hall; Tufnell 1958,36
Lachish	LB	10.4	10				Inner Temple	N-S	Structure II; Hall; Tufnell 1958,36
Nahariya	MB II	10.7	6.2	*1.15*			Inner Temple	S, E-W	Rectangular hall flanked by 2 small rooms on its short sides; Yogev 1993

Table 137. Dimensions of the interior spaces of public buildings.

Miscellaneous buildings (exterior)

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
‘Ai	EB II	18	10				Building	W	195; Urban C; three-roomed house blocks access to postern gate; Herzog 1997
Alalakh	EB II	7.4	3.9	*1.4*		potsherds	Domestic		Woolley 1955, 14; Stratum XIII
Arqa	EB IV	4.25	1.1				Domestic		Thalmann 2006, 22; rooms 16.46, 16.48; storage
Arqa	EB IV	4.25	1.6				Domestic		Thalmann 2006, 22; room 16.50; storage
Arqa	EB IV	3.2	2.1				Domestic		Thalmann 2006, 30; Room 15.48
Arqa	EB IV	3.3	1.2				Domestic		Thalmann 2006, 30; Room 15.51
Arqa	MB I	9	8			stone	Domestic		Stratum 14, Thalmann 2006, 44; one-room house
Arqa	MB II	2.5	2				Domestic		Thalmann 2006, 56; room 13.26
Ashkelon	MB II	10.5	8.7				Courtyard Building	N	(179); Foot of Rampart; six small rooms; courtyard 4.5x7m; Voss 2002
Beth Shean	MB III	7	7				Building		Walls 0.9-1.1w; Mazar & Mullins 2007
Bethel	MB III	8.6	4.25				Patrician House		Kelso 1968
Nagila	MB II	7	6				Dom. Building		of which there are two rows with common back walls; rectangular courtyard with ovens and small rooms on 1 or 2 sides; 14.5m between two 1.5w streets; Amiran & Eitan 1993
Qatna	LB	4.2	3.3				Ceramic workshop	NS orientation	Al-Maqdissi & Badawi 2002: 37

Table 138. Dimensions of the exteriors of miscellaneous buildings in the Levant.

Miscellaneous rooms and courtyards

Table 139. Dimensions of miscellaneous rooms and courtyards in the Levant.

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Ajjul	MB II	2.85	1.27				Room	N	'Privy' DK; Petrie 1933
Alalakh	EB I	4.9	4.6				Domestic courtyard		Woolley 1955, 13-14; Stratum XIV
Alalakh	MB II	21	9				Palace court	NW	Woolley 1955, 92: Stratum VII
Aphek	MB I	15	20				Palace Courtyard	NW	(60); A XIVA; Yadin 2009
Arqa	EB IV		2			stone	contiguous rooms	W	Stratum 16 (Thalmann 1991, 27)
Arqa	EB IV		3.5			stone	contiguous rooms	W	Stratum 16 (Thalmann 1991, 27)
Arqa	LB	6	6	0.6		stone	courtyard		Stratum 12 (Thalmann 1991, 34); squares AK and AL21
Arqa	LB	4	3.5			stone	Room		Thalmann 2006, 72; 12.33
Arqa	LB	4.8	3.4				Room		Thalmann 2006: 73; 12.31; N terrace B
Arqa	LB	4.3	3.4				Room		Thalmann 2006, 12.08; N terrace B; door 1.2w
Arqa	LB	2.5	2.5			stone	Room		Thalmann 2006:, 74; Terrace C
Ashkelon	MB II	7	4.5				Dom. Courtyard	N	Building 179; six small rooms; Voss 2002
Batash	MB II	9	3				Room	NE	W wall 4w; Mazar 1997
Beth Shean	MB II	6	3				Room		Wall .6-.7; Mazar & Mullins 2007
Beth Shean	MB II	4.5	2.5				Room		79148; Mazar & Mullins 2007
Beth Shean	MB III	2.8	2.6				Room		98516; Mazar & Mullins 2007

Table 139 (cont.).

Site	Period	Length	Width	Height	Ratio	Foundation	Architecture	Orientation/ Location	Comment
Far'ah, el- (N)	MB I/II	7.5	3.5				Dom. Rooms	W	Largest of continuous series of rooms 48L; interrupted by a passage(?); not interconnected; entrances through doors on eastern sides; Mallet 1987
Far'ah, el- (N)	MB II-III	4.5	3.5				Bastion room	SW	Mallet 1987
Far'ah, el- (N)	MB II-III	1.8	3.5				Bastion room	SW	Mallet 1987
Gezer	MB I	5.25	4.8				Room		Internal 2.75 x 4; Dever *et al*. 1970
Hesi, el-	EB II-III	5	4				Bastion Rooms		two rooms 4x5 connected by 2w corridor; Bliss 1894, 85-6
Qatna	MB I	8.1	5.2				Room		Al-Maqdissi & Badawi 2002: 49; square E. VII/o.18
Qatna	MB I	12.3	7.3				Room		Al-Maqdissi & Badawi 2002: 50; squares E. VII/o-p.18 and E VII/o.17