

The Early Bronze Age Seal-Impressed Vessels from Ḥirbet ez-Zeraqōn



The Early Bronze Age Seal-Impressed Vessels from Ḥirbet ez-Zeraqōn

Pot-Sealing Practices in the Levant
and Northeastern Syria in the Fourth
and Third Millennia BCE

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To Ale and to my father, and in memory of Siegfried Mittmann
'The roots and the ruins are the same thing' (Karate, The Roots and the Ruins)

To Sara, because we will burn it down

Contents

List of Figures and Tables.....	iii
Acknowledgements	viii
Chapter 1. The practice of impressing vessels with seals in the Levant and northeastern Syria in the 4th and 3rd millennia BCE. Geographical setting, chronology, history of research, materials and methods.....	1
Introduction	1
Structure of the study	1
Geographical background.....	2
Chronological framework and periodisation	3
Seal-impressed pots in the 4th and 3rd millennia BCE and beyond.....	8
Brief history of research	10
Materials.....	10
Methods.....	12
Chapter 2. <i>Ḥirbet ez-Zeraqōn</i>: an Early Bronze Age site in the northern Jordan Valley	15
Location and ecology	15
Excavations and previous works	15
Layout and building history of the Early Bronze Age settlement.....	16
Layout of the site	18
Stratigraphy and Chronology	21
EB II-III at <i>Ḥirbet ez-Zeraqōn</i> , a short outline	23
Chapter 3. The seal-impressed pottery from <i>Ḥirbet ez-Zeraqōn</i>.....	26
Materials.....	26
Methods.....	26
Assessment and quantification.....	27
Stratigraphic attributions	27
Seal-impressed vessels	29
Representations	36
Sealing techniques.....	49
The archaeological contexts	56
Overview of the distribution pattern and relationship with architectural units.....	63
Discussion.....	69
Chapter 4. Southern Levant	72
Introduction	72
Chronology	72
Archaeological contexts.....	78
Pottery types and wares	79
Sealing techniques.....	82
Representations	85
Discussion.....	91
Chapter 5. Central Levant	93
Introduction	93
Chronology	94
Archaeological contexts.....	100
Pottery types and wares	101
Sealing technique	103
Representations	105
Discussion.....	109

Chapter 6. Northern Levant	112
Introduction	112
Chronology	112
Archaeological contexts.....	122
Pottery types and wares	124
Sealing techniques.....	130
Representations	132
Discussion.....	139
Chapter 7. Middle Euphrates	141
Introduction	141
Chronology	141
Archaeological contexts.....	146
Pottery types and wares	146
Sealing techniques.....	147
Representations	149
Discussion.....	152
Chapter 8. Jezirah	155
Introduction	155
Chronology	155
Archaeological contexts.....	159
Pottery types and wares	160
Sealing techniques.....	160
Representations	162
Discussion.....	165
Chapter 9. Developments of the vessel-sealing phenomenon in the Levant and northeastern Syria in the 4th and 3rd millennia BCE	168
Patterns of regionalisms.....	168
The ceramic containers	168
Sealing techniques.....	169
Spatial and chronological developments of representation types	170
Diachronic developments of pot-sealing practices in the Levant and northeastern Syria	185
Regional trajectories, circulations, and interregional connectivity	196
Chapter 10. Conclusion: features and meaning of the pot-sealing practices	200
<i>Ḥirbet ez-Zeraqōn</i> as a case study	200
Pot-sealing practices in the Levant and northeastern Syria in the Early Bronze Age: filling gaps and connecting pieces	200
Investigating meaning(s) and function(s) of seal-impressed pots.....	203
Pot-sealing: glyptic traditions, ceramic manufacture, and communities of practice	205
Summary	209
References	215
Catalogue. Ḥirbet ez-Zeraqōn	243
Appendix A. Table of Finds – Southern Levant	348
Appendix B. Table of Finds – Central Levant	410
Appendix C. Table of Finds – Northern Levant	448
Appendix D. Table of Finds – Middle Euphrates	486
Appendix E. Table of Finds – Jezirah	499

List of Figures and Tables

Chapter 1

Figure 1.1.	Map of regions included in the present study (map by C. Forster - Datalino, Berlin; graphic elaboration by V. Tumolo).....	2
Figure 1.2.	Chronological chart showing regional sequences for Southern, Central, and Northern Levant, Middle Euphrates, and Jezirah between the mid 4th and end of the 3rd millennium BCE, following recent proposals on chronologies, as described in the text.....	3
Figure 1.3.	Map with location of sites included in the present study (map by C. Forster - Datalino, Berlin; graphic elaboration by V. Tumolo)	11

Chapter 2

Figure 2.1.	Map of the Southern Levant with location of <i>Ḥirbet ez-Zeraqōn</i> (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo)	15
Figure 2.2.	<i>Ḥirbet ez-Zeraqōn</i> , topographic plan (courtesy of the <i>Ḥirbet ez-Zeraqōn</i> archaeological expedition)	17
Figure 2.3.	<i>Ḥirbet ez-Zeraqōn</i> , upper town plan (drawing by M. Speidel; graphic elaboration by V. Tumolo; courtesy of the <i>Ḥirbet ez-Zeraqōn</i> archaeological expedition)	18
Figure 2.4.	<i>Ḥirbet ez-Zeraqōn</i> , lower town plan, Late Horizon (drawing by M. Speidel; graphic elaboration by V. Tumolo; courtesy of the <i>Ḥirbet ez-Zeraqōn</i> archaeological expedition)	19
Figure 2.5.	Individual calibration of radiocarbon determinations from <i>Ḥirbet ez-Zeraqōn</i> (after Tumolo and Höflmayer 2020: Fig. 13.4).....	22
Figure 2.6.	Chronological chart indicating the setting of the Early, Middle and Late Horizon occupations at <i>Ḥirbet ez-Zeraqōn</i> in relation to regional chronologies of Southern, Central, and Northern Levant, Middle Euphrates, and Jezirah between the mid 4th and end of the 3rd millennium BCE	23

Chapter 3

Table 3.1.	Sealings consisting of potsherds joining or having identical features (*sherd not available for examination)	27
Table 3.2.	List of items impressed by the same seals and possibly parts of the same vessels (*sherd not available for examination).....	28
Figure 3.1.	Proportions of seal-impressed vessels by provenience. Under ‘unstratified contexts’ are the surface finds and items collected from other mixed or unstratified contexts. Under ‘stratified’ are the items collected from EB II-III occupation stages	28
Figure 3.2.	Proportion of types within the assemblage of seal-impressed vessels	29
Figure 3.3.	Types of seal-impressed vessels at <i>Ḥirbet ez-Zeraqōn</i> . Figure 3.3.a. Vessel type L (redrawn after Genz 2002: 27, figs 7, 12). Figure 3.3.b. Vessels type K (redrawn after Genz 2002: 27, figs 6, 11)	30
Figure 3.4.	The seal-impressed pithos HZ88-430 (after Genz 2002: pl. 27)	30
Figure 3.5.	Proportion of detected ware-types for seal-impressed items	31
Figure 3.6.	Wares and ceramic types of seal-impressed items	33
Figure 3.7.	Numerical relationship between sealed and unsealed vessels of Ware g, c, and d. Note: ‘Ware g’ also includes items classified as ‘Ware g or Ware c’ and ‘Ware g or Ware d’; ‘Ware c’ also includes items classified as ‘Ware c or Ware d’	33
Figure 3.8.	Distribution of seal-impressed vessels by provenience with indication of ware type.....	34
Figure 3.9.	Ratio of unsealed and seal-impressed Ware g vessels in the Early Horizon, Middle Horizon and Late Horizon. Note: EH ‘Ware g sealed’ includes also one item classified as ‘Ware g or Ware c’ (EH: after Genz 2002: tab. 53; MH: after Genz 2002: tab. 52; LH: after Genz 2002: tab. 51).....	34
Figure 3.10.	Ratio of ware groups in the Early Horizon, Middle Horizon and Late Horizon, as documented by plain (EH: after Genz 2002: tab. 53; MH: after Genz 2002: tab. 52; LH: after Genz 2002: tab. 51) and seal-impressed pottery. Note: EH ‘Ware g sealed’ includes also one item classified as ‘Ware g or Ware c’	34
Figure 3.11.	Frequency of representation types, geometric and figurative	37
Figure 3.12.	Chronological distribution of representation types.....	37
Figure 3.13.	Net pattern representations. Figure 3.13.a. HZ87-115; Figure 3.13.b. HZ88-321; Figure 3.13.c. HZ85-21; Figure 3.13.d. HZ91-357; Figure 3.13.e. HZ93-167	38
Figure 3.14.	Lozenges/triangles representations. Figure 3.14.a. HZ91-607; Figure 3.14.b. HZ84-16; Figure 3.14.c. HZ85-76	38
Figure 3.15.	Lozenges/triangles representations. Figure 3.15.a. HZ87-15; Figure 3.15.b. HZ91-450.....	39
Figure 3.16.	Spirals/circles + lozenges/triangle representations. Figure 3.16.a. HZ88-352 + HZ88-370; Figure 3.16.b. HZ88-398; Figure 3.16.c. HZ84-3.....	40
Figure 3.17.	Spirals/circles + herringbone/net representations. Figure 3.17.a. HZ88-208; Figure 3.17.b. HZ88-100; Figure 3.17.c. HZ87-112 + HZ87-113	40
Figure 3.18.	Zigzag/herringbone representations. Figure 3.18.a. HZ93-54; Figure 3.18.b. HZ94-77.....	41
Figure 3.19.	Ladder + herringbone representations. Figure 3.19.a. HZ91-32; Figure 3.19.b. HZ91-116	41
Figure 3.20.	Net pattern + ladder + herringbone and Zigzag + net pattern representations. Figure 3.20.a. HZ91-468 + HZ91-646; Figure 3.20.b. HZ93-95; Figure 3.20.c. HZ91-380	42
Figure 3.21.	Rectangles in row/ladder pattern and geometric miscellaneous representations. Figure 3.21.a. HZ87-330; Figure 3.21.b. HZ93-222; Figure 3.21.c. HZ91-171	42
Figure 3.22.	Representations of animals, and animals and geometric elements. Figure 3.22.a. HZ94-53; Figure 3.22.b. HZ84-2; Figure 3.22.c. HZ84-24.....	43

Figure 3.23.	Figure and geometric elements representation: HZ88-101	43
Figure 3.24.	Meeting scene representations. Figure 3.24.a. HZ91-170; Figure 3.24.b. HZ88-6; Figure 3.24.c. HZ91-214; Figure 3.24.d. HZ84-11; Figure 3.24.e. HZ88-69; Figure 3.24.f. HZ84-1; Figure 3.24.g. HZ88-445; Figure 3.24.h. HZ88-5; Figure 3.24.i. HZ85-3	45
Figure 3.25.	Dance and erotic scene representations. Figure 3.25.a. HZ91-101; Figure 3.25.b. HZ91-579; Figure 3.25.c. HZ91-813; Figure 3.25.d. HZ93-166; Figure 3.25.e. HZ91-26	47
Figure 3.26.	Herding scene representations. Figure 3.26.a. HZ88-430; Figure 3.26.b. HZ64-1; Figure 3.26.c. HZ93-150; Figure 3.26.d. Reconstruction proposal of the complete herding scene impressing HZ64-1, HZ93-150, HZ84-33, HZ91-608, HZ84-30, HZ91-75, and HZ88-430; Figure 3.26.e. HZ91-173	48
Figure 3.27.	Stone seals. Figure 3.27.a. Seal HZ87-269; Figure 3.27.b. The unfinished seal HZ88-413 (courtesy of the <i>Ḥirbet ez-Zeraqōn</i> archaeological expedition)	50
Figure 3.28.	Calculated dimensions of the seals, as suggested by impressions preserved in their whole height and entire rolling length	51
Table 3.3.	List of dimensions of the fully and almost fully preserved impressions	52
Figure 3.29.	Reconstruction of the complete impression on pithos HZ88-430	53
Figure 3.30.	Examples of overlapping motifs. Figure 3.30.a. HZ91-73; Figure 3.30.b. HZ88-107; Figure 3.30.c. HZ84-36; Figure 3.30.d. HZ93-177	53
Figure 3.31.	Impressions and combing. Figure 3.31.a. Particular of pithos HZ88-430 (not in scale). Figure 3.31.b. Impressed sherd HZ93-166	54
Figure 3.32.	Topographical provenance and chronological attribution of seal-impressed items	55
Figure 3.33.	Distribution pattern of seal-impressed items in the lower town	55
Figure 3.34.	Distribution pattern of seal-impressed items in the upper town	56
Figure 3.35.	Distribution pattern of seal-impressed items in the lower town in the Early Horizon	57
Figure 3.36.	Distribution pattern of seal-impressed items in the upper town in the Early Horizon	58
Figure 3.37.	Distribution pattern of seal-impressed items in the lower town in the Middle Horizon	59
Figure 3.38.	Distribution pattern of seal-impressed items in the upper town in the Middle Horizon	60
Figure 3.39.	Distribution pattern of seal-impressed items in the lower town in the Late Horizon	61
Figure 3.40.	Distribution pattern of seal-impressed items in the upper town in the Late Horizon	62
Figure 3.41.	Find contexts of the seals HZ87-269 and HZ88-413 in the upper town	63
Table 3.4.	Distribution and quantity of seal-impressed items in the lower town according to architectural units and chrono-stratigraphic stages	64
Table 3.5.	Distribution and quantity of seal-impressed items in the upper town according to architectural units and chrono-stratigraphic stages	64
Figure 3.42.	Broad spatial distribution of geometric and figurative representations	65
Figure 3.43.	Spatial and stratigraphic distribution of the geometric and figurative representations attributed to the Early, Middle, and Late Horizon	65
Figure 3.44.	Spatial distribution of representation types	66
Table 3.6.	Distribution of representation types in the lower town according to architectural units and chrono-stratigraphic stages	66
Table 3.7.	Distribution of representation types in the upper town according to architectural units and chrono-stratigraphic stages	67
Figure 3.45.	Find spots of the seal-impressed items HZ93-150, HZ84-33, HZ91-608, HZ84-30, and HZ88-430 in the upper town	68
Figure 3.46.	Seal-impressed sherd SL-021.01 from 'Arqūb ez-Zahar /el-Ḥuǧāǧ (courtesy of the <i>Ḥirbet ez-Zeraqōn</i> archaeological expedition)	71

Chapter 4

Figure 4.1.	Map of distribution of seal-impressed vessels in Southern Levant during the Early Bronze Age (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo)	73
Figure 4.2.	Chronological breakdown of evidence from Southern Levant, including the assemblage from <i>Ḥirbet ez-Zeraqōn</i> ..	74
Figure 4.3.	EB IB seal-impressed items from <i>Tell el-Mutesellim</i> /Megiddo. Figure 4.3.a. Bow-rim jar SL-038.02 (redrawn after Engberg and Shipton 1934b: 91); Figure 4.3.b. Sherd SL-038.04 (redrawn after Engberg and Shipton 1934a: Figs 10:C, 11:C)	75
Figure 4.4.	Seal-impressed sherd SL-062.15 from <i>Bāb edh-Dhrā'</i> (redrawn after Lapp 1989: 7, fig. 6; courtesy of N. Lapp)	77
Figure 4.5.	Proportions of seal-impressed ceramic types in Southern Levant, including the assemblage from <i>Ḥirbet ez-Zeraqōn</i>	79
Figure 4.6.	Chronological distribution of seal-impressed ceramic types in Southern Levant, including the assemblage from <i>Ḥirbet ez-Zeraqōn</i>	81
Figure 4.7.	Breakdown of the main representation types in Southern Levant, including the assemblage from <i>Ḥirbet ez-Zeraqōn</i> . Under 'Net, herringbones, zigzags, lines, circles' are grouped the <i>Ḥirbet ez-Zeraqōn</i> types Zer.RG.7-NetLadder, Zer.RG.8-ZigzagNet, Zer.RG.9-Rectangles. Under 'Animals' are included the <i>Ḥirbet ez-Zeraqōn</i> types Zer.RF.2-AnimalsGeom and HZ84-2 of the Zer.RF.1-Animals type, while HZ94-53 has been included in the category 'Feline chasing quadruped'	84
Figure 4.8.	Chronological distribution of representation types in Southern Levant, including the evidence from <i>Ḥirbet ez-Zeraqōn</i> . Under 'Net, herringbones, zigzags, lines, circles' are grouped the <i>Ḥirbet ez-Zeraqōn</i> types Zer.RG.7-NetLadder, Zer.RG.8-ZigzagNet, Zer.RG.9-Rectangles. Under 'Animals' are included the <i>Ḥirbet ez-Zeraqōn</i> types Zer.RF.2-AnimalsGeom and HZ84-2 of the Zer.RF.1-Animals type, while HZ94-53 has been included in the category 'Feline chasing quadruped'	86
Figure 4.9.	Distribution of representations in relation to ceramic types in Southern Levant, including the assemblage from <i>Ḥirbet ez-Zeraqōn</i> . Under 'Net, herringbone, zigzags, lines, circles' are grouped the <i>Ḥirbet ez-Zeraqōn</i>	

	types Zer.RG.7-NetLadder, Zer.RG.8-ZigzagNet, Zer.RG.9-Rectangles. Under ‘Animals’ are included the <i>Hirbet ez-Zeraqōn</i> types Zer.RF.2-AnimalsGeom and HZ84-2 of the Zer.RF.1-Animals type, while HZ94-53 has been included in the category ‘Feline chasing quadruped’	87
Figure 4.10.	Dance scenes. Figure 4.10.a. Reconstruction of the scene on sherd HZ91-101 from <i>Hirbet ez-Zeraqōn</i> . Figure 4.10.b. Seal-impressed sherd SL-062.16 from <i>Bāb edh-Dhrā</i> (redrawn after Lapp 1989: 5-7, fig. 5; courtesy of N. Lapp).....	90
Chapter 5		
Figure 5.1.	Map of distribution of seal-impressed vessels in Central Levant during the Early Bronze Age (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo).....	93
Figure 5.2.	Breakdown of the Central Levantine evidence according to spatial distribution	94
Figure 5.3.	Seal-impressed jar B-35-7-41 from the tomb G 2370 at Giza and detail of the impression (redrawn after Reiser and Smith 1955: fig. 98 and Pl. 53b)	95
Figure 5.4.	Chronological breakdown of evidence from Central Levant.....	95
Figure 5.5.	LC/EB I seal-impressed items. Figure 5.5.a. CL-002.01 from <i>Tell Fad’ūs/Kfar ‘Abida</i> (copyright: the Tell Fadous-Kfarabida Excavation Project; courtesy of H. Genz); Figure 5.5.b. CL-003.32 from <i>Byblos</i> (redrawn after Dunand 1945: 32-35, no. 14, fig. 5c, pl. Vd).....	96
Figure 5.6.	Seal-impressed jar CL-001.01 from <i>Tell ‘Arqa</i> (courtesy of M. Jean Mission de Tell Arqa). Figure 5.6.a. Drawing of the jar with emphasis on the impressions (Thalmann 2013: fig. 15); Figure 5.6.b. Particular of impressions on the upper body (not in scale); Figure 5.6.c. Particular of the impression applied at the bottom of the jar (Thalmann 2013: fig. 21).....	98
Figure 5.7.	Seal-impressed items from <i>Tell Fad’ūs/Kfar ‘Abida</i> (copyright: the Tell Fadous-Kfarabida Excavation Project; courtesy of H. Genz). Figure 5.7.a. CL-002.13 from <i>Tell Fad’ūs/Kfar ‘Abida</i> ; Figure 5.7.b. CL-002.08 from <i>Tell Fad’ūs/Kfar ‘Abida</i>	99
Figure 5.8.	Proportions of seal-impressed ceramic types in Central Levant.....	102
Figure 5.9.	Chronological distribution of seal-impressed ceramic types in Central Levant.....	103
Figure 5.10.	Breakdown of the main representation types in Central Levant. The vessel CL-001.01 from <i>Tell ‘Arqa</i> has been included in the ‘Net pattern’ group.....	106
Figure 5.11.	Chronological distribution of representation types in Central Levant. The vessel CL-001.01 from <i>Tell ‘Arqa</i> has been included in the ‘Net pattern’ group.....	107
Figure 5.12.	Distribution of representations in relation to ceramic types in Central Levant	108
Figure 5.13.	Chronological distribution of the evidence from the Central Levant in relation to site assemblages. The evidence attributed to a broad 3100-2500 BCE period has been not included. The evidence respectively attributed to the 2800-2500 BCE and 2700-2500 BCE has been included in the 2800/2700-2500 BCE time-block ..	110
Chapter 6		
Figure 6.1.	Map of distribution of seal-impressed vessels in Northern Levant during the Early Bronze Age (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo).....	113
Figure 6.2.	Breakdown of the Northern Levantine evidence according to spatial distribution. Under ‘Northern sites’ is grouped the evidence from sites to the north of <i>Tell Mardīh/Ebla</i> , including <i>Tell Tūqān</i> , while under ‘Southern sites’ is grouped the evidence from sites to the south of <i>Tell Mardīh/Ebla</i> , except <i>Ḥama</i> , including <i>Rās Šamra/Ugarit</i> and <i>Tell Siyānū</i>	114
Figure 6.3.	Chronological breakdown of evidence from Northern Levant	114
Figure 6.4.	Seal-impressed sherd NL-012.01 from <i>Tell Tūqān</i> (courtesy of L. Peyronel)	115
Figure 6.5.	Seal-impressed items with geometric and figurative representations. Figure 6.5.a. NL-018.01 from <i>Ḥama</i> (courtesy of G. Mouamar and National Museum of Denmark); Figure 6.5.b. NL-010.01 from <i>Tell Umm el-Marrā</i> (after Dunham 2024: Fig. 4.1:c, courtesy of G. Schwartz); Figure 6.5.c. NL-021.01 from <i>Tell es-Sour</i> (redrawn after Al-Maqdissi and Ishaq 2012: 8-9, Fig. 3a-b. Picture by E. Ishaq; drawing by M. Hamoudé; courtesy of M. al-Maqdissi).....	116
Figure 6.6.	Seal-impressed items from <i>Tell Mardīh/Ebla</i> (copyright: Missione Archeologica Italiana in Siria di Sapienza Università di Roma; courtesy of D. Nadali) and <i>Ḥama</i> (courtesy of G. Mouamar and National Museum of Denmark). Figure 6.6.a. NL-013.08 from <i>Tell Mardīh/Ebla</i> ; Figure 6.6.b. NL-018.04 from <i>Ḥama</i> ; Figure 6.6.c. NL-013.18 from <i>Tell Mardīh/Ebla</i> ; Figure 6.6.d. NL-018.21 from <i>Ḥama</i>	117
Figure 6.7.	Seal-impressed items from <i>Tell Mardīh/Ebla</i> (copyright: Missione Archeologica Italiana in Siria di Sapienza Università di Roma; courtesy of D. Nadali) and <i>Ḥama</i> (courtesy of G. Mouamar and National Museum of Denmark). Figure 6.7.a. NL-018.33 from <i>Ḥama</i> ; Figure 6.7.b. NL-018.28 from <i>Ḥama</i> ; Figure 6.7.c. NL-013.34 from <i>Tell Mardīh/Ebla</i> ; Figure 6.7.d. NL-013.36 from <i>Tell Mardīh/Ebla</i>	118
Figure 6.8.	Seal-impressed items with figurative representations from <i>Tell Mardīh/Ebla</i> (copyright: Missione Archeologica Italiana in Siria di Sapienza Università di Roma; courtesy of D. Nadali) and <i>Ḥama</i> (courtesy of G. Mouamar and National Museum of Denmark). Figure 6.8.a. NL-013.48 from <i>Tell Mardīh/Ebla</i> ; Figure 6.8.b. NL-013.49 from <i>Tell Mardīh/Ebla</i> ; Figure 6.8.c. NL-018.31 from <i>Ḥama</i> ; Figure 6.8.d. NL-013.46 from <i>Tell Mardīh/Ebla</i> ; Figure 6.8.e. NL-013.45 from <i>Tell Mardīh/Ebla</i> ; Figure 6.8.f. NL-013.44 from <i>Tell Mardīh/Ebla</i>	119
Figure 6.9.	Seal-impressed items with figurative representations. Figure 6.9.a. NL-020.01(-02) from <i>Tell el-Mišrefe/Qatna</i> (credits Missione Archeologica dell’Università di Udine a Mishrifef/Qatna; courtesy of D. Morandi-Bonacossi); Figure 6.9.b. NL-013.52 from <i>Tell Mardīh/Ebla</i> (copyright: Missione Archeologica Italiana in Siria di Sapienza Università di Roma; courtesy of D. Nadali); Figure 6.9.c. NL-010.02 from <i>Tell Umm el-Marrā</i> (drawing after Dunham 2024: Fig. 4.2 and courtesy of G. Schwartz; picture courtesy of G. Schwartz).....	120

Figure 6.10.	Seal-impressed items from <i>Tell Mardih/Ebla</i> (copyright: Missione Archeologica Italiana in Siria di Sapienza Università di Roma; courtesy of D. Nadali). Figure 6.10:a. NL-013.55 from <i>Mardih/Ebla</i> ; Figure 6.10:b. NL-013.54 from <i>Mardih/Ebla</i> ; Figure 6.10:c. NL-013.58 from <i>Mardih/Ebla</i>	122
Figure 6.11.	Proportions of seal-impressed ceramic types in Northern Levant.....	125
Figure 6.12.	Chronological distribution of seal-impressed ceramic types in Northern Levant.....	125
Figure 6.13.	Globular pots with seal impressions from <i>Hama</i> (courtesy of National Museum of Denmark; elaborated after Tumolo 2022: Fig. 5). Figure 6.13:a, Figure 6.13:b. With vertical rim (NL-018.04 and NL-018.09); Figure 6.13:c. Hole-mouth (NL-018.07).....	126
Figure 6.14.	Map of distribution of seal-impressed globular pots (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo; elaborated after Tumolo 2022: Fig. 4).....	127
Figure 6.15.	Thickened-rim ovoid jars with seal impressions from <i>Tell Mardih/Ebla</i> (elaborated after Tumolo 2022: Fig. 4). Figure 6.15:a. NL-013.49 (courtesy of D. Nadali, redrawn after Mazzoni 1992: pl. XXV: A16); Figure 6.15:b. NL-013.34 (courtesy of D. Nadali, redrawn after Mazzoni 1992: pl. XXIV: A15).....	128
Figure 6.16.	Map of distribution of seal-impressed ovoid jars with thickened rim (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo; elaborated after Tumolo 2022: Fig. 6).....	129
Figure 6.17.	Breakdown of the main representation types in Northern Levant.....	133
Figure 6.18.	Chronological distribution of representation types in Northern Levant.....	134
Figure 6.19.	Distribution of representations in relation to ceramic types in Northern Levant.....	135
Chapter 7		
Figure 7.1.	Map of distribution of seal-impressed vessels in the Middle Euphrates during the Early Bronze Age. Note: in brackets location of evidence from Jezirah (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo).....	142
Figure 7.2.	Chronological breakdown of evidence from the Middle Euphrates. The evidence included under the 3100-2900 BCE time-block belongs to the LC (c. 3400/3300-3100 BCE)/EME 1 (c. 3100-2900 BCE) transition.....	143
Figure 7.3.	Seal-impressed items from <i>Tell el-'Abd</i> (courtesy of U. Finkbeiner). Figure 7.3:a. ME-009.01; Figure 7.3:b. ME-009.02; Figure 7.3:c. ME-009.03; Figure 7.3:d. ME-009.04; Figure 7.3:e. ME-009.05.....	144
Figure 7.4.	Seal-impressed sherd ME-005.01 from <i>Tell Šiyuḥ Taḥtāni</i> (courtesy of G. Falsone and P. Sconzo).....	145
Figure 7.5.	Seal-impressed jar ME-007.01 from <i>Tell al-Banāt</i> (courtesy of A. Porter; credit: Euphrates Archaeology; drawing by A. McCarthy).....	145
Figure 7.6.	Breakdown of the main representation types in the Middle Euphrates.....	148
Figure 7.7.	Chronological distribution of representation types in the Middle Euphrates. The evidence included under the 3100-2900 BCE time-block belongs to the LC (c. 3400/3300-3100 BCE)/EME 1 (c. 3100-2900 BCE) transition.....	150
Figure 7.8.	Chronological distribution of the evidence from the Middle Euphrates in relation to site assemblages. The evidence attributed to 2900-2450 BCE has been included in the 2900-2700 BCE time-block. The evidence attributed to 2700-2300 BCE has been included in the 2700-2450 BCE time-block.....	153
Chapter 8		
Figure 8.1.	Map of distribution of seal-impressed vessels in the Jezirah during the Early Bronze Age. Note: in brackets location of evidence from Middle Euphrates (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo).....	156
Figure 8.2.	Chronological breakdown of evidence from the Jezirah.....	157
Figure 8.3.	EJZ 3 seal-impressed items. Figure 8.3:a. JZ-003.01 from <i>Tell Muḥammed Kebīr</i> (redrawn after Meijer 1986: no. 231b, fig. 9; courtesy of D.J.W. Meijer); Figure 8.3:b. JZ-005.01 from <i>Tell Beydar</i> (redrawn after Rova 2006: Fig. 1; courtesy of E. Rova); Figure 8.3:c. JZ-001.03 from <i>Tell Mōzān</i> (redrawn after Dohmann-Pfälzner and Pfälzner 2000: Fig. 29; courtesy of P. Pfälzner); Figure 8.3:d. JZ-002.01 from <i>Tell Lēlān</i> (redrawn after Parayre 1990: fig. 28,4; credits H. Weiss, Yale University Tell Leilan Project; courtesy of H. Weiss); Figure 8.3:e. JZ-009.01 from <i>Tell Khuera</i> (redraw after Helms <i>et al.</i> 2013: Fig. 18; courtesy of T. Helms and A. Pruß).....	158
Figure 8.4.	Breakdown of the main representation types in the Jezirah.....	162
Figure 8.5.	Chronological distribution of representation types in the Jezirah.....	163
Figure 8.6.	Chronological distributions of the evidence from the Jezirah in relation to site assemblages. The evidence associated with the broad 2550-2340 BCE period has been included in the 2430-2340 BCE time-block.....	166
Chapter 9		
Figure 9.1.	Breakdown of numbers of seal-impressed vessels related to regional entities.....	169
Figure 9.2.	Breakdown of numbers of sites with evidence of pot-sealing per region.....	169
Figure 9.3.	Locations of sites with seal-impressed examples depicting dance scenes.....	178
Figure 9.4.	Locations of sites with seal-impressed examples depicting herding scenes.....	181
Figure 9.5.	Chronological analysis of evidence related to regional entities. Note: the Southern Levant EB IA group (c. 3700-3300 BCE) also includes material dated to EB IA-IB (c. 3700-3100 BCE), EB IA-II (c. 3700-2900), and EB IA-III (c. 3700-2500); the EB IB group (c. 3300-3100 BCE) also includes material dated to EB IB (c. 3300-2900 BCE) and EB IB-III (c. 3300-2500 BCE); the EB II group (c. 3100-2900/2800 BCE) also includes material dated to the EB II-early EB III of Southern Levant (c. 3100-2750 BCE) and the EB II-EB II/EB III transition for Central Levant (c. 3100-2700 BCE); the EME 2 group (c. 2900-2700/2650 BCE) of the Middle Euphrates also includes items assigned to a broad EME 2-3 period (c. 2900-2450 BCE); the EB III group (c. 2900-2900/2800 BCE) also includes material dated to the EB II EB III of Southern Levant (c. 3100-2500 BCE) and the EB II-III (c. 3100-2500 BCE) and EB II/III transition - EB III (c. 2800-2500 BCE) for Central Levant; the EB III group of Northern Levant (c. 2750-2550 BCE) also includes one item attributed to EB III-IVA (ca. 2759-2300 BCE); the EME 3 group for the Middle Euphrates (c. 2700/2650-2450 BCE) also includes an item assigned to a broad EME 3-4 period (c. 2700/2650 -2300 BCE); the EJZ 2 period (c. 2750-2550 BCE) for the Jezirah also includes items attributed to a broad EJZ1-2	

	(c. 2900-2550 BCE) and Late EJZ 2 period (c. 2600-2550 BCE); the EB IVA group of Northern Levant (c. 2550-2300 BCE) also includes items attributed to the periods c. 2450-2200 and 2450-2000 BCE; the EJZ 3 (c. 2550-2340 BCE) period also includes items dated to EJZ 3a (c. 2550-2430 BCE) and EJZ 3b (c. 2430-2340 BCE).....	183
Figure 9.6.	Location of sites with seal-impressed examples and quantities for the period c. (3900)/3700-3300 BCE. Note: the EB IA group (c. 3700-3300 BCE) of Southern Levant also includes material dated to EB IA-IB (c. 3700-3100 BCE), EB IA-II (c. 3700-2900 BCE), and EB IA-III (c. 3700-2500 BCE).....	184
Figure 9.7.	Location of sites with seal-impressed examples and quantities for the period c. 3900/3700-3300 BCE. Note: the EB IB group (c. 3300-3100 BCE) of Southern Levant also includes materials dated to EB IB (c. 3300-2900 BCE), and EB IB-III (c. 3300-2500 BCE).....	186
Figure 9.8.	Location of sites with seal-impressed examples and quantities for the period c. 3100-2900 BCE. Note: the EB II group (c. 3100-2900/2800 BCE) also includes materials dated to EB II-early EB III of Southern Levant (c. 3100-2750 BCE) and the EB II-EB II/EB III transition for Central Levant (c. 3100-2700 BCE).....	188
Figure 9.9.	Location of sites with seal-impressed examples and quantities for the period c. 2900-2750/2700 BCE. Note: the EME 2 group (c. 2900-2700/2650 BCE) of the Middle Euphrates also includes items assigned to a broad EME 2-3 period (c. 2900-2450 BCE).....	190
Figure 9.10.	Location of sites with seal-impressed examples and quantities for the period c. 2750/2700-2500 BCE. Note: the EB III group (c. 2900-2900/2800 BCE) also includes material dated to EB II EB III of Southern Levant (c. 3100-2500 BCE) and EB II-III (c. 3100-2500 BCE) and EB II/III transition - EB III (ac. 2800-2500 BCE) for Central Levant; the EB III group of Northern Levant (c. 2750-2550 BCE) also includes one item attributed to EB III-IVA (c. 2759-2300 BCE); the EME 3 group for the Middle Euphrates (c. 2700/265-2450 BCE) also includes an item assigned to a broad EME 3-4 period (c. 2700/2650-2300 BCE); the EJZ 2 period (c. 2750-2550 BCE) for the Jezirah also includes items attributed to both EJZ1-2 (c. 2900-2550 BCE) and Late EJZ 2 (c. 2600-2550 BCE).....	191
Figure 9.11.	Location of sites with seal-impressed examples and quantities for the period c. 2550/2500-2300 BCE. Note: the EB IVA group of Northern Levant (c. 2550-2300 BCE) also includes items attributed to the stages c. 2450-2200 and 2450-2000 BCE; the EJZ 3 (c. 2550-2340 BCE) includes items dated to EJZ 3a (c. 2550-2430 BCE) and EJZ 3b (c. 2430-2340 BCE).....	193
Figure 9.12.	Location of sites with seal-impressed examples and quantities for the period c. 2300-2000 BCE.....	195
Figure 9.13.	Map showing sites with evidence of stamp seals and stamp-seal impressions with ovoid sealing face and net pattern designs, and with circular sealing face and cross design (map by C. Forster, Datalino - Berlin; graphic elaboration by V. Tumolo; elaborated after Tumolo 2022: Fig. 3).....	198
Chapter 10		
Figure 10.1.	Schematic diagram for an interpretation of Early Bronze Age pot-sealing practices in the Levant and northeastern Syria.....	213

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Chapter 1

The practice of impressing vessels with seals in the Levant and northeastern Syria in the 4th and 3rd millennia BCE. Geographical setting, chronology, history of research, materials and methods

Introduction

The present study deals with the practice of impressing ceramic vessels with seals before firing in the Levant and northeastern Syria during the 4th and 3rd millennia BCE. It provides a detailed and updated reflection on the practice, from its first appearance and development through to its demise, based on both the analysis of the substantial and previously unpublished assemblage of seal-impressed vessels from *Ḥirbet ez-Zeraqōn*, northern Jordan, and the chronological reassessment of the evidence from the entire Levant and northeastern Syria. This is done in light of recent work that has redefined the complex chronological sequences of the region that is the focus of this study. It is, in fact, clear that only by setting the evidence within a robust chronological framework will it be possible to address the origin and development of the practice in the area and, thus, to offer new insights for a better comprehension of its *raison d'être*. Tackling the topic in the broadest and most comprehensive way possible, this study helps fill some important gaps in our understanding of distribution and use of seal-impressed vessels, while addressing the long-standing questions about their function(s) and meaning(s), and, at the same time, recognising that future discoveries could radically challenge our present views.

The phenomenon of impressing ceramics with seals is of great interest for the archaeology of southwest Asia and the Mediterranean for several reasons. Although the custom of applying seal impressions on ceramic containers might seem unusual with respect to the most widespread sealing practices that characterised the entire area from prehistoric to historic times, this was a widespread and flexible practice that appears and re-appears over time.¹ It was adaptable to the lifestyle of some inhabitants of southwest Asia from the 4th millennium BCE until the Iron Age, but it seems to have especially answered the needs of Early Bronze Age populations in the Levant. In this case, it seems to have emerged as an original custom, possibly

¹ Both the singular 'pot-sealing practice' and the plural 'pot-sealing practices' are used here. The first expression designates the custom of impressing vessels with seals, while the plural 'practices' refers to the different ways in which this custom is applied in the various geographical and chronological contexts, as suggested by Thalmann (2013: 28).

independent from the sealing practices of Northern Mesopotamian origin and, instead, being built on the prehistoric local tradition of stamps. The impressed vessels were likely the expression of social components independent of centralised controls and, in particular, of the communities of ceramic practice and their organisation, especially in relation to the production of containers for food storage and preparation. At the same time, pot-sealing reflects the intertwining of pottery and glyptic manufactures, and these latter reveal nuanced relationships with the clay-sealing practices. The images depicted on the impressions offer a novel glimpse into the representative and symbolic systems of individual communities and provide hints for investigating the role played by the distribution of impressed vessels in the circulation of ideas, as well as the creation and transformation of imagery through the various regions.

Structure of the study

The structure of the present work is built around the analysis of the assemblage of seal-impressed pots from *Ḥirbet ez-Zeraqōn* in light of the development of the settlement during the Early Bronze Age, and, at the same time, on the evaluation of the evidence from the rest of the Levant and northeastern Syria. Following the introduction (presented in Chapter 1), Chapter 2 deals with the site of *Ḥirbet ez-Zeraqōn*, describing the location, topography, layout, and chrono-stratigraphic sequence of the site. Chapter 3 reports on the analyses of the glyptic repertoire from the site. Ceramic features, technical aspects, and images of the seal-impressed items are evaluated in light of the stratigraphy and architecture of the site, as well as the broader aspects of pottery manufacturing. The ceramics with impressions from the rest of the Levant and northeastern Syria are treated in Chapters 4-8: each of these chapters is dedicated to the analysis of the assemblage from a specific region (see below), encompassing the 'Southern Levant' (Chapter 4), 'Central Levant' (Chapter 5), 'Northern Levant' (Chapter 6), 'Middle Euphrates' (Chapter 7), and the 'Jezirah' (Chapter 8). For each region, a chronological assessment of the local evidence is followed by a more in-depth analysis, focusing on the nature of the find contexts, the ceramic features, the sealing techniques, and the images depicted on the impressions. In Chapter 9, a

comprehensive diachronic and geographical overview of the pot-sealing phenomenon in the Early Bronze Age is offered, as it emerges from the integration of the regional analyses. In Chapter 10, the main features of the practice(s) of pot-sealing are discussed, as they appear in the archaeological record, encompassing both specificities and aspects shared across various sub-regions. A particular focus is given to the contribution offered by the study of the seal-impressed pottery from *Ḥirbet ez-Zeraqŏn*, not only because of the volume of this assemblage, but also because of the new data offered by the analysis of the seal-impressed materials within the broader developments of ceramic manufacturing and use at the site. Finally, existing interpretations of function(s) and meaning(s) of Early Bronze Age seal-impressed vessels in the Levant and northeastern Syria proposed by other scholars are evaluated, and my reconstruction of the possible significance of the pot-sealing practices in the region is discussed, in relation to the aspects that have emerged from the present study. The Figures in the text and the Plates are at a scale of 1:1, except when otherwise indicated within the image or the figure caption.

Geographical background

The geographical focus of the present study corresponds to regions of southwest Asia, including the modern sociopolitical entities of Syria, Lebanon, Palestine, Israel, Jordan, and part of southeastern Turkey. Archaeologically, this region has also traditionally been referred to as Syria-Palestine, or the Levant and northeastern Syria.² The area is comprised of several sub-regions defined on the basis of both physical and cultural aspects,³ and identified within studies on the prehistory and the protohistory of southwest Asia, including the ARCANÉ Project,⁴ as well as previous research on Early Bronze Age seal-impressed vessels.⁵ These entities are the ‘Southern Levant’ (SL), ‘Central Levant’ (CL),⁶ ‘Northern Levant’ (NL), ‘Middle Euphrates’ (ME), and ‘Jezirah’ (JZ) (Figure 1.1).

Although such classification into geographical units mirrors Early Bronze Age cultural *nuclei*, these



Figure 1.1. Map of regions included in the present study (map by C. Forster - Datalino, Berlin; graphic elaboration by V. Tumolo).

entities were not defined by sharp and rigid borders. Their identification as entities and the attribution of sites to each of them might be somewhat artificial in some cases. This applies, for example, to sites such as *Tilbešar* and *Tell Umm el-Marrā*, respectively in the *Sajur* and the *Jabbul* areas, whose material culture in the Early Bronze Age shares aspects with both the contemporary traditions of the Middle Euphrates and northwestern Syria.⁷ In the present study, these sites have been included respectively within the Middle Euphrates and the Northern Levant, following the customary attribution given in the literature,⁸ but with the awareness that incorporation into specific regional groupings cannot homogenise the specificities of each assemblage. The same applies to another ‘frontier’ site, *Ḥirbet el-Umbāši*, located in the *Kraa* volcanic area of the *Harra* in modern Syria, which has been treated here together with Southern Levantine settlements. This site was occupied in the Early Bronze Age by inhabitants devoted to a highly mobile lifestyle and characterised by a quite independent material culture, which, on the

² See Suriano 2014: 9–10, and references therein; see also Greenberg 2019: 3–5.

³ These regional or sub-regional entities are defined here on the basis of cultural aspects as evident from Early Bronze Age material culture. They do not refer to modern sociopolitical entities and borders.

⁴ <http://www.arcane.uni-tuebingen.de/arcanemap.html> (accessed 27 September 2022). See also Lebeau 2011a: 3–7; Lebeau and de Miroschedji 2014, ix; Thalmann 2013: 280. Although the ‘Central Levant’ has been considered as part of the ‘Northern Levant’ in some research (e.g. Genz 2012b), it is treated here as a specific regional entity because of the specificity of its socio-cultural trajectories, as also expressed by the seal-impressed vessels.

⁵ E.g. Felli 2015; Mazzoni 1992; 1993; 2009; 2013a; 2017; McCarthy 2007; 2011; Rova 2006.

⁶ Coastal Syria and Lebanon: <http://www.arcane.uni-tuebingen.de/rq2/FinalReport-NL.pdf>.

⁷ Vacca 2021: 205.

⁸ See Lebeau (ed.) 2014; Finkbeiner *et al.* (eds) 2015.

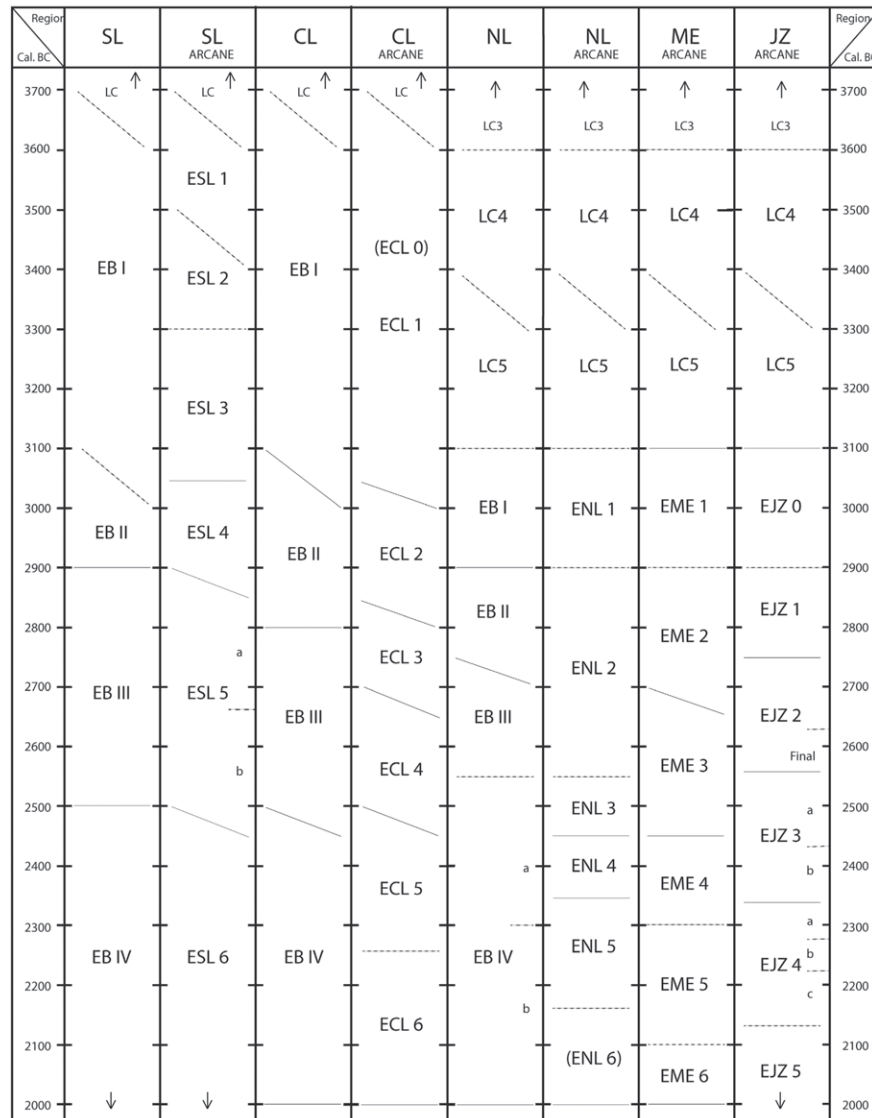


Figure 1.2. Chronological chart showing regional sequences for Southern, Central, and Northern Levant, Middle Euphrates, and Jezirah between the mid 4th and end of the 3rd millennium BCE, following recent proposals on chronologies, as described in the text.

other hand, shared features with Southern Levantine materials.⁹

Chronological framework and periodisation

One of the most complex issues regarding the evaluation of the pot-sealing practice phenomenon during the Early Bronze Age (henceforth EBA or EB) is that this particular period of prehistory and protohistory is plagued by chronological inconsistencies and debates. It is defined somewhat differently in each of the sub-regions and divided into several sub-phases of various temporal lengths. These chronological issues are further complicated by the absence of agreed dates

for the start and end of the EBA. In fact, while the beginning of the Syrian EBA roughly corresponds to the end of the 4th millennium BCE, the EBA of the Central and the Southern Levant is dated already c. the mid 4th millennium, or even earlier, being contemporary with the latest developments of the Syrian Late Chalcolithic (henceforth LC). Further difficulties for defining consistent chronological sequences and robust interregional correlations are represented by the use of diverse terminologies, i.e. ‘*Énéolithique récent*’ for part of the Chalcolithic/EBA horizon(s) of *Byblos*,¹⁰ or by the attribution of different meanings to the same labels, e.g. the four-staged division of the EBA in the Southern

⁹ See Braemer et al. 2004: 364-367; Nicolle 2023: 9-12.

¹⁰ See Genz 2014a: 292-296.

Levant¹¹ when applied to sequences of western Syria¹² and the Middle Euphrates.¹³ Similar issues exist for the Southern Mesopotamian periodisation (i.e. Jemdet Nasr, Early Dynastic I-III, Akkadian, Ur III periods), which has often been borrowed for the EBA site-sequences of the Jezirah, and used together with chronological schemes more specifically reflecting local cultural developments (e.g. Early Jezirah/EJ 0-V).¹⁴

Although the definitions of cultural sequences and boundaries are in some cases still quite blurry, it is possible to suggest a revision of the relative chronologies and the correlation of these to chronometric dates, thanks to recent syntheses of local periodisation and interregional synchronisations. In fact, over the last decades, several research projects have sought to reassess the regional chrono-stratigraphic sequences, including efforts by the ARCANE Project, aimed at synchronising the 3rd-millennium BCE chronologies across the entire Ancient Near East and Eastern Mediterranean.¹⁵ Similar revaluations of the traditional periodisation have been embraced by other projects working in the various regions of the Levant, which have proposed new insights based on both the reevaluation of ceramic chrono-stratigraphic sequences and data given by radiocarbon determinations.¹⁶

The chronological framework used in the present study, including the synchronisation of regional sequences and correlation with chronometric dates, is shown in Figure 1.2. Such a chronological scheme represents the results of the elaboration of outputs taken from recent publications (see below) and is proposed here, with the awareness that a general consensus has yet to be reached because of the incomplete nature of some archaeological records and the assumed fluidity of cultural transitions more broadly. For the 3rd millennium BCE, we follow the periodisation offered by the ARCANE Project for the Jezirah and the Middle Euphrates,¹⁷ while the traditional Early Bronze Age terminology is used for the sequences of the Northern, Central, and Southern Levant. A correlation with the periods suggested by the ARCANE Project¹⁸ is stressed, for the provision of more

precise chronological indications. The EBA terminology is used for the second half of the 4th millennium in the Southern and Central Levant as well, corresponding to the beginning of the EBA, while for Syria, the second half of the 4th millennium corresponds to the two last periods of the LC.

For the Southern Levant, the EBA regional sequence was traditionally defined on the basis of correlations with Egyptian chronology, and has been the object of substantial revisions in the last decades, especially thanks to several studies based on radiocarbon determinations supporting earlier dates than those indicated by traditional chronological models.¹⁹ For the correlation between the EBA sequence and the Early Southern Levant (ESL) ARCANE Project periodisation, the adjustments suggested by Sowada (2020: 154, fig. 8) are followed in this work, both for the internal partition of ESL5 in sub-periods falling at c. 2650 BCE, as well as for the transition between the latter phase and ESL 6. The beginning of EBA in the region might have already started c. 3700 BCE, if not even earlier, i.e. from c. 3900/3800 BCE,²⁰ covering a long interval that would be contemporary with the beginning of the LC/EB I - EB IA of the Central Levant (see below). A transition placed c. 3350/3250 BCE might divide two main EB I sub-phases, an early EB I/EB IA and a late EB I/EB IB, respectively, each characterised by quite specific developments in settlement pattern, architectural features, and material culture.²¹ Such a transition roughly corresponds to the ESL 2 of the ARCANE periodisation and, possibly, even to a larger time span, i.e. between c. 3450 and c. 3100 BCE. This suggests the existence of a quite nuanced reality,²² where the transition between the two sub-phases would not occur simultaneously over the entire region.²³

A similar situation might apply to the boundary between EB I and EB II, which, although mostly occurring c. 3100-3000 BCE,²⁴ took place earlier in some cases c. 3200 BCE, or later, c. 2900 BCE, with some settlements sequences being characterised by a 'final EB IB' that already manifests some hallmarks of the following EB II material culture features.²⁵ If the beginning

¹¹ See Chapman 2009; Genz 2002: 1-6; Sharon 2014: 44-53.

¹² See Akkermans and Schwartz 2003: 233-287; Cooper 2014: 278-280; Matthews 1996: 122; Matthiae 2013: 181-183. Mazzoni 1991. The Cilician chronological periodisation (EB I-III) was defined by Mellink (1967) on the basis of the stratigraphy of *Gözü Kule/Tarsus*.

¹³ See Sconzo 2013: 4-8, and references therein.

¹⁴ For a general overview of the terminologies used in defining the Jezirah chronology, see Lebeau 2011a: 9-13.

¹⁵ <http://www.arcane.uni-tuebingen.de>; Finkbeiner *et al.* (eds) 2015; Lebeau (ed.) 2011; Lebeau and de Miroschedji (eds) 2014.

¹⁶ E.g. Fall *et al.* 2021; 2022; Höflmayer *et al.* 2014; Köhler and Thalmann 2014; Regev *et al.* 2012a; 2012b; 2014; 2020; Tumolo and Höflmayer 2020; Vacca 2020; Welton 2017; 2022.

¹⁷ Finkbeiner *et al.* (eds) 2015; Lebeau (ed.) 2011.

¹⁸ Lebeau and de Miroschedji 2014, xi. The results of the project for the Levantine regions remain unpublished thus far, and some revisions to the earliest chronological scheme proposed have been suggested through time (e.g. Sowada 2020: 154, fig. 8).

¹⁹ E.g. Regev *et al.* 2012a; 2012b; 2014; 2020; Tumolo and Höflmayer 2020.

²⁰ See Regev *et al.* 2012a: 526, 555-556, and references therein.

²¹ Regev *et al.* 2012a: 526, 558.

²² Braun 2012: 26.

²³ Regev *et al.* 2012a: 561. The transition between EB IA and EB IB occurred possibly c. 3400/3330 BCE at *Ḥirbet el-Kerak* (Regev *et al.* 2020: 18). The EB I settlement of *Ġawā*, beginning at c. 3500-3400 BCE, could be assigned to the EB IB (Müller-Neuhof *et al.* 2015; Müller-Neuhof 2017: 124-125).

²⁴ Regev *et al.* 2014: 258.

²⁵ Regev *et al.* 2012a: 528-529, 561. This EB I-II transition would completely correspond, according to de Miroschedji (2022: 253-245), to the ESL 3 of the ARCANE sequence, while the EB II would equate the ESL 2.

of EB III can be placed c. 2900 BCE,²⁶ then the end of the period would fall c. 2500 BCE, or slightly earlier,²⁷ contemporary with the end of EB III in the Central Levant.²⁸ An internal distinction between EB IIIA and EB IIIB might have occurred c. 2800/2750 BCE, or even earlier,²⁹ while the end of EB IV can be placed c. 1950 BCE,³⁰ or even 1900 BCE.³¹ In light of this evidence, the chronological outline illustrated in Figure 1.2 is used in the present work.³²

The absence of a strong chronological framework for the LC and the EBA of the Central Levant thus far remains a major issue. In sum, 'we presently lack a proper chronological framework. The threefold subdivision of the period as used in the southern Levant, or the different systems currently in use in inner Syria, are of little help for the classification of recently excavated material from Lebanon. We need a new system derived from local stratigraphies correlated through typological comparisons and absolute 14C dates.' (Thalmann 2009: 16).³³ The most problematic aspect in this sense is the identification and dating of the beginning of the EBA, and its relationship to preceding Chalcolithic phases, due to the limited exposure of settlements that can be assigned to both the EB I and EB II,³⁴ as well as the uncertain nature of the 'Chalcolithic' of *Sidon-Dakerman* and the 'Énéolithique récent' (Énéolithique B)/Inst. II of *Byblos*, which evidence the main issue in relation to this matter. In fact, these horizons, which still lack both radiocarbon data and comparative ceramic assemblages,³⁵ have been either attributed to EB I³⁶ and/or LC.³⁷ In the first case, the 'Énéolithique récent' of *Byblos* would have corresponded to an EB I cultural stage, dated c. 3700-3000 cal BC, for the correlation with the material culture remains of the EB I of the Southern Levant,³⁸ which follow the local LC represented by the 'Énéolithique ancien' (c. 4500-3700 cal BC). On the other hand, on the basis of similarities to the ceramic assemblage of Phase I at *Tell Fad'ūs/Kfar 'Abīda*,³⁹ comparable to the 'Énéolithique récent'

(Énéolithique B)/Inst. II of *Byblos*, with the preceding Chalcolithic periods, this period has been attributed to the LC, starting at the beginning of the 4th millennium BCE.⁴⁰ One of the main sources of these chronological conundra is the lack of evidence of material culture that shows a differentiation between a full/late EB I and the previous Chalcolithic tradition. In fact, the end of the 'Énéolithique récent' horizon remains still elusive, and this would coincide at *Tell Fad'ūs/Kfar 'Abīda* with the beginning of a gap that separates Phase I from Phase II, and that is assigned by the excavator to a broad period including the EB I and EB II.⁴¹ It can be suggested that such a mature/late EB I (or EB IB) period might correspond to Dunand's *Installation III* at *Byblos*, which follows the 'Énéolithique récent' (Énéolithique B)/*Installation II*, probably after a gap,⁴² as well as to the proto-Urban phase of Lauffray (2008), assigned to a late EB I or very early EB II. This corresponds, for the Early Central Levant (ECL) ARCANE periodisation, to the ECL 1.⁴³ Therefore, the *Installation III*/Proto-Urban stage of *Byblos* would match the EB IB of the Southern Levant, while the previous the 'Énéolithique récent'/*Installation IIB* would correlate with the EB IA.⁴⁴ With the awareness of all these still critical issues, on the basis of the available evidence, the LC/EB I is divided here into two periods,⁴⁵ roughly corresponding to the ECL 0 and ECL1 of the ARCANE periodisation. More specifically, the label LC/EB I or EB IA, which would correspond to the phase preceding the ECL according to ARCANE, is used for defining the stage represented by the 'Énéolithique récent' (Énéolithique B)/*Installation II'* of *Byblos* and Phase I at *Tell Fad'ūs/Kfar 'Abīda*, because of the appearance of new ceramic types that might support the attribution to an EB cultural phase, despite continuities with the previous LC tradition.⁴⁶ On the basis of this evidence, a conventional date for the beginning of this LC/EB I stage can be placed in the early 4th millennium, perhaps already c. 3900 BCE,⁴⁷ while the end would have occurred at the mid 4th millennium BCE, c. 3600/3500 BCE, or c. 3500/3400 BCE, matching the end of both the LC4 in the Northern Levant, and the ESL 1/2 in the Southern Levant (see above and below). A subsequent later EB I (or EB IB?), still poorly defined and probably corresponding to the ECL 1 of the ARCANE periodisation, would be represented by the *Installation III*/Proto-Urban stage of *Byblos*, probably Stratum I

²⁶ Regev et al. 2012a: 559, 561.

²⁷ Fall et al. 2021: 63, 65; 2022: 11; Regev et al. 2012a: 559, 561; 2012b: 522-523.

²⁸ Höflmayer et al. 2014: 539.

²⁹ Regev et al. 2014: 522.

³⁰ Regev et al. 2012a: 556.

³¹ Fall et al. 2021: 65, 68.

³² EB I c. 3700-3100/(3050) BCE, divided into EB IA (= ESL 1(-2)) c. 3700-3350/3250 BCE and EB IB (= ESL 3) c. 3350/3250-3100/(3050) BCE; EB II (= ESL 4) c. 3100/(3050)-2900 BCE; EB III (= ESL 5) c. 2900-2500 BCE, divided into EB IIIA c. 2900-2750 BCE and EB IIIB c. 2750-2500 BCE; EB IV (= ESL 6) c. 2500-1950 BCE.

³³ For an overview on the lack of general consensus on chronological terminology and definitions for sub-periods, see Genz 2014a: 292.

³⁴ Genz 2014a: 297.

³⁵ Artin 2009: 27; 2010: 75; Genz 2007-2009: 55; 2014a: 294, Tab. 2.

³⁶ Artin 2010: 75; 2014-2015: Tab. 1; Genz 2014a: 293-296.

³⁷ Genz et al. 2021: 36-38.

³⁸ Artin 2010: 75; 2014-2015: Tab. 1.

³⁹ The evidence included under Phase I at *Tell Fad'ūs/Kfar 'Abīda* consists mostly of unstratified ceramic evidence; no actual architectural evidence has been uncovered (Badreshany et al. 2005:

27-29, 39; Genz 2010a: 103-104; 2012a: 22-23; 2014b: 70; Genz and Ahrens 2021: 49; Genz et al. 2021: 36).

⁴⁰ See Genz and Ahrens 2021: 49-50, 61; Genz et al. 2021: 36-38, 79. This is also suggested by a single radiocarbon determination from a jar burial of Phase I at *Tell Fad'ūs/Kfar 'Abīda* (Genz 2010a: 104; Höflmayer et al. 2014: 533-534, Fig. 1).

⁴¹ See Genz and Ahrens 2021: 49-50; Genz et al. 2021: 79.

⁴² See Mazzoni 1992: 83, and references therein.

⁴³ de Vreeze and Badreshany 2023: 111.

⁴⁴ Nigro 2007: 3, Tab. 1.

⁴⁵ After Artin 2014-2015: Tab. 1; Genz 2014a: 294, Tab. 2.1; Genz et al. 2021: 36-38.

⁴⁶ See Genz et al. 2021: 36.

⁴⁷ Genz and Ahrens 2021: 49; Genz et al. 2021: 79.

at *Sidōn/Ṣaidā*,⁴⁸ as well as the first part of the hiatus between Phases I and II at *Tell Fad'ūs/Kfar 'Abīd*. It should have covered the second half of the 4th millennium BCE,⁴⁹ ending c. 3100/(3000) BCE, with the beginning of the EB II.

For the following periods, the EBA standard chronology,⁵⁰ recently revised on the basis of radiocarbon determinations,⁵¹ is less controversial, and has quite direct correlation with the ARCANE ECL sequence.⁵² In the same way as for the Southern Levant, the ECL terminology is used in the present study for supporting the chronological assessments of the EBA sequence, following Sowada (2020: 154, fig. 8). An EB II-III transitional phase (c. 2800-2700/2650 BCE = ECL 3), directly associated with the EB II tradition,⁵³ is represented by the *Niveau 18* at *Tell 'Arqa*, that ended in destruction c. 2700/2650 BCE.⁵⁴ Instead, the following EB III, represented by Stratum 6 of *Sidōn/Ṣaidā*,⁵⁵ ends c. 2450/2500 BCE,⁵⁶ corresponding to the boundary between *Tell 'Arqa Niveau 17* and 16.⁵⁷ The end of the final *Niveau 16* (A-B) at *Tell 'Arqa*⁵⁸ marks the transition between EB IVA and EB IVB, placed c. 2250/2200 BCE, while the EB IVB would cease at c. 2000 BCE.⁵⁹ The chronological outline used in the present work for the Central Levant is illustrated in Figure 1.2.⁶⁰

For Syria, the second half of the 4th millennium corresponds to LC4 and LC5, the periods of Uruk presence (late Middle Uruk and Late Uruk respectively) in northern Mesopotamia. These are dated c. 3600-3100 BCE, or 3600-(3400)/3300 BCE for the LC4, and (3400)/3300-3100 BCE for the LC5, according to the most used chronological scheme for the LC of Northern Mesopotamia (Santa Fe chronology; Rothman (ed.) 2001), although some radiocarbon dates still present contradictions.⁶¹ Following these periods, the beginning of the EBA is thus set at c. 3100 BCE. On the other hand, for the Northern Levant the nature and length of the LC4 and LC5 are still poorly defined in respect of the rest of Syria, and the possibility of reconstructing a robust sequence is especially complicated by the still

uncertain length of the 'Amūq F phase, which could correspond to LC5, or had an earlier start. There is also a gap, of undefined extent, that probably separated this stage from the previous 'Amūq Phase E.⁶² The beginning of the EBA is traditionally dated to the end of the 4th millennium,⁶³ or, even more precisely, to c. 3100 BCE, as seems hinted by evidence from *Tell Afis*,⁶⁴ although only a few radiocarbon dates are available. If those from the 'Amūq G phase of *Tell el Ġudēde* suggest a date between 3000 and 2800 cal BC,⁶⁵ determinations for *Tell en-Nebī Mend/Qadeš* set the beginning of the EBA horizon already at 3400/3300 cal BC.⁶⁶ Moreover, the definition of the nature and length of an EB I and an EB II periods still represents a conundrum, and similar issues partially affect the EB III horizon as well. The identification of EB I and EB II horizons is limited by the paucity of evidence.⁶⁷ Moreover, the relationship between the 'Amūq G-H phases and the EB I-III chronologies is also still uncertain. If the transition between Phases G and H might be placed c. 2900 BCE, with Phase G dated to c. 3100-2900 BCE and H to c. 2900-2550 BCE, Phase G (c. 3100-2900 BCE) might equate to the EB I, with H (c. 2900-2550 BCE) corresponding to EB II-III.⁶⁸ On the other hand, Phase 'Amūq G (c. 3100-2900 BCE) might correlate with EB I-II, which corresponds, for the Early Northern Levant (ENL) ARCANE periodisation, to the ENL 1 (c. 3100-2900 BCE), while Phase H with EB III/ENL 2 (c. 2900-2550 BCE).⁶⁹ While the beginning of EB III is set here c. 2750/2700 BCE, following proposals made on the basis of radiocarbon determination for phase *Mardikh IIA3* at *Tell Mardīh/Ebla*,⁷⁰ the end is placed c. (2600)/2550 BCE. The subsequent period, dated to c. (2600)/2550-2450 BCE, and covered by the ENL 3 of the ARCANE sequence, is named here EB IVA1, following the definition used for *Mardikh IIB1a* at *Tell Mardīh/Ebla*, dated to c. 2550-2450 BCE,⁷¹ and distinguished from EB IVA2, equivalent to *Mardikh IIB1b-c* (c. 2450-2300 BCE).⁷² Although I also acknowledge that the period c. 2550-2450 BCE is characterised instead by EB III cultural facies at some sites, e.g. *Tell Umm el-Marrā*, where the local Period VI, radiocarbon dated to c. 2600-2450 BCE, is attributed to EB III/ENL 3/EME 3.⁷³

⁴⁸ Doumet-Serhal 2006a: 56-57.

⁴⁹ Genz *et al.* 2021: 79; Höflmayer *et al.* 2014: 534, Fig. 1.

⁵⁰ See Doumet-Serhal 2006a: 69-70; Genz 2014a: 294, Tab. 2.1.

⁵¹ Höflmayer *et al.* 2014: 539; Köhler and Thalmann 2014: 189.

⁵² Jean 2020: 139, Tab. 1; Thalmann 2013: 258, fig. 1.

⁵³ Genz *et al.* 2021: Tab. 9; Genz and Ahrens 2021: tab. 1; 2023: tab. 1.

⁵⁴ Jean 2020: 139, Tab. 1; Köhler and Thalmann 2014: 189; Thalmann 2013: 258, fig. 1.

⁵⁵ Genz 2015: 100-101, and references therein.

⁵⁶ Höflmayer *et al.* 2014: 537-539.

⁵⁷ Köhler and Thalmann 2014: 189.

⁵⁸ Jean 2020: 139, Tab. 1; Thalmann 2009: 17; 2013: 258, fig. 1.

⁵⁹ Genz 2015: 101; 2017: 75.

⁶⁰ EB II (= ECL2) c. 3100/(3000)-2800 BCE; late EB II/transition EB II-III (=ECL 3) c. 2800-2700/(2650) BCE; EB III (=ECL 4) c. 2700/(2650)-2500/(2450) BCE; EB IVA (= ECL 5) c. (2450)/2500-2250/(2200) BCE; EB IVB (= ECL6) c. 2250/(2200)-2000 BCE.

⁶¹ Lawrence and Wilkinson 2015: 239; McMahon 2020: 293-294; Wilkinson *et al.* 2014: Tab.1.

⁶² Philip 2002: 210-213; Welton 2017: 1-7; 2022: 21.

⁶³ Welton 2017: 22; 2022: 25.

⁶⁴ Vacca 2020: 2-3.

⁶⁵ Edens 2000: 195-198.

⁶⁶ Matthias 2000: 422-425; see also Wilkinson *et al.* 2014: Tab. 1.

⁶⁷ Schwartz 2017: 89.

⁶⁸ Vacca 2020: 276, Fig. 6.16.

⁶⁹ Because of the presence, in this latter stage, of the Red-Black Burnished Ware, introduced in EB III into other parts of the Levant (L. Welton, pers. comm.; and see Welton 2022: Tab. 1.2).

⁷⁰ See Vacca 2020: 207.

⁷¹ Vacca 2020: 207-208.

⁷² *Mardikh IIB1a* at *Tell Mardīh/Ebla* has been interpreted as belonging to either the late EB III or early EB IVA (Vacca 2020: 18, and references therein).

⁷³ Schwartz 2024: 15; Webster and Schwartz 2024: 34; G. Schwartz, pers. comm..

For the EB IVB, a conventional chronometric date to c. 2300–2000 BCE is adopted in this present work.⁷⁴ The earlier and later developments of this period correspond here to ‘early’ and ‘late’ EB IVB,⁷⁵ respectively, and they are correlated with ENL 5 and 6.⁷⁶

With the awareness of the diverse sub-regional developments, as well as many still unclear aspects, for the sake of convenience the chronological outline illustrated in Figure 1.2 is used in the present work in relation to the materials from the Northern Levant,⁷⁷ benefitting from the ARCANE terminology as an aid for dealing with discrepancies.⁷⁸ For the Middle Euphrates, the framework used here (Figure 1.2) is in parallel with the Early Middle Euphrates (EME) sequence of the ARCANE Project, together with the absolute dates published by P. Sconzo.⁷⁹ For the Jezirah, the EBA sequence is defined here according to the Early Jezirah (EJZ) chronology suggested by the ARCANE Project (Figure 1.2).⁸⁰

In the entire area under consideration in the present research, the 4th and 3rd millennia BCE are characterised by the appearance of new settlements and types of material culture that suggest the emergence of diverse types of social systems in respect to the previous periods. Although all the evidence points toward dynamics leading to increasing social complexity, these aspects were differentially manifested across the region in terms of magnitudes and diverse trajectories.⁸¹ These different forms of socio-economic organisations and cultural identities represented the backgrounds for the appearance and development of the pot-sealing practice. In Syria, the EBA represents a period of new urbanisation, after the experience of the LC 2 (c. 4200–3900 BCE) and LC 3 (c. 3900–3600 BCE).⁸² This appears to have been already disrupted in LC 4 (c. 3600–3400/3300 BCE), associated with the introduction of Middle Uruk influence, with the abandonment of several sites and

the contraction of others.⁸³ A wider dissemination of (Late) Uruk socio-cultural elements in both the Middle Euphrates and Khabur areas took place in the LC 5 (c. 3300–3100 BCE). After the first centuries of the EBA, these northern Mesopotamian Uruk features reemerged, having been absorbed and elaborated according to local traditions and specific necessities in the diverse areas.⁸⁴ The settlement pattern that emerged in association with the new EBA urbanisation process was characterised by large sites, e.g., in the Kabur and the Balikh basins, and the steppe area to the east of *Ḥama*.⁸⁵ This urbanisation process developed according to different trajectories in the diverse regions: in the Jezirah it had already begun in the final EJZ 2, reaching its peak in EJZ 3, and especially in Early Jezirah 3b, when, with important exceptions such as the EJZ 2 ‘Leilan III Palace’, most of the palace buildings of the region were built – and continue to exist also in EJZ 4.⁸⁶ In the Middle Euphrates, after a de-urbanisation that followed the collapse of the Uruk network in EME 1, the settlement system was likely organised non-hierarchically in the EME 2–3. A new urbanisation stage, possibly stimulated to some extent by the Jezirah, seems to be associated with the EME 4–5 period, with evidence of organised city planning and public buildings.⁸⁷ For the Northern Levant, the period preceding the EBA is only known from partial evidence, e.g. the Ubaid/LC 1–5 remains at *Tell Afis*,⁸⁸ with several uncertainties as to the character of the material culture.⁸⁹ It seems that the Uruk influence was very limited and mostly occurred in the *‘Amūq* at the very end of the 4th millennium BCE.⁹⁰ Similarly, the EB I–II of the region is also poorly understood due to a general lack of excavated sites. The data from the phases that predate the EB IVA Royal Palace G at *Tell Mardīh/Ebla* suggest that the EB III was characterised by incipient centralisation of some economic sectors, probably conducted by large households and constituting precedents for the EB IVA urban developments.⁹¹ While in the Southern Levant the features of the LC period, as well as those of the beginning of the EBA, are well known,⁹² the evidence associated with these periods in the Central Levant is quite limited and ambiguous. The following EB II seems to have already been part of the urban experience known more commonly from the EB III and that declined in the EB IV in the southern part of the region,⁹³ while the northern areas experienced an orientation toward the Northern Levant.⁹⁴

⁷⁴ D’Andrea 2018: 229. The EB IVB is considered as beginning after the destruction of Royal Palace G at *Tell Mardīh/Ebla* (Mardikh IIB1b–c), dated to 2367–2293 cal BC by radiocarbon determination (Vacca 2020: 14, and references therein).

⁷⁵ See D’Andrea 2018: 233.

⁷⁶ Welton 2020: Tab. 3.1.

⁷⁷ EB I (= ENL 1) c. 3100–2900 BCE; EB II (= early ENL 2) c. 2900–2750/(2700) BCE; EB III (= late ENL 2) c. 2750/(2700)–2550/(2500) BCE; EB IVA1 (= ENL 3) c. 2550/(2500)–2450/(2400) BCE; EB IVA2 (= ENL 4) c. 2450/(2400)–2300 BCE; EB IVB (= ENL 5–6) c. 2300–2000 BCE (early EB IVB/ ENL5 c. 2300–2200 BCE; late EB IVB / ENL6 c. 2200–2000 BCE).

⁷⁸ See Vacca 2020: 3, Tab. 1, 207–208.

⁷⁹ Sconzo 2013: 215–222. EME 1 c. 3100–2900 BCE (Sconzo 2013: 215); EME 2 c. 2900–2700/(2650) BCE (Sconzo 2013: 216); EME 3 c. 2700/(2650)–2450 BCE (Sconzo 2013: 220); EME 4 c. 2450–2300 BCE; EME 5 c. 2300–2100 BCE; EME 6 c. 2100–2000 BCE.

⁸⁰ Lebeau 2011b: 367–380. EJZ 0 c. 3100–2900 BCE; EJZ 1 c. (2950/)/2900–2750 BCE; EJZ 2 c. 2750–2550 BCE (EJZ 2 final c. (2650/)/2600–2550 BCE); EJZ 3 c. 2550–2340 BCE (EJZ 3a c. 2550–2430 BCE; EJZ 3b c. 2430–2340 BCE); EJZ 4 c. 2340–2100 BCE; EJZ 5 c. 2100–1900 BCE.

⁸¹ See Mazzoni 2006a: 329–332.

⁸² E.g. McMahon 2020: 293–294.

⁸³ McMahon 2020: 303–306, 322, and references therein.

⁸⁴ Frangipane 2009: 33–37.

⁸⁵ Akkermans and Schwartz 2003: 211–262.

⁸⁶ Pfälzner 2011: 174–175; Vacca 2020: 289, 304.

⁸⁷ Novák 2015: 44–51.

⁸⁸ Vacca 2020: 168, Tab. 4.3, and references therein.

⁸⁹ Philip 2002: 208; Vacca 2020: 289; Welton 2017: 16.

⁹⁰ Mazzoni 2000; Philip 2002; Welton 2017: 1–2, 19.

⁹¹ Vacca and D’Andrea 2020, and references therein; Welton 2017: 2–3.

⁹² E.g. Greenberg 2019: 24–69.

⁹³ Genz 2015: 101–102.

⁹⁴ Thalmann 2007: 220–224.

The truly ‘urban’ nature of the 4th- and 3rd-millennia settlements in the area is a topic of debate, and definitions of urbanism have been shifting from foci on structural features to functional aspects; urban sites are considered functionally differentiated from rural ones on the basis of differing socio-economic and political roles.⁹⁵ This is especially true for the Southern Levant, where traditional narratives cite the emergence of walled settlements in the EB II-III as evidence for an urban community and as the material embodiment of social stratification developing from a growth in complexity starting from the EB I.⁹⁶ On the other hand, other narratives are more nuanced and suggest multiple possible trajectories of social aggregation and economic organisation related to urbanism.⁹⁷ Among these interpretations, some highlight the differences among an EB II urbanism based on a corporate social aggregation and a poorly integrated EB III urbanism that featured increasing inequality, supporting elites.⁹⁸

Seal-impressed pots in the 4th and 3rd millennia BCE and beyond

The objective of the present study is to better understand the material practices that are represented by those ceramic vessels that were impressed with seals before firing, either by stamps or cylinder seals. Diverse terms have been used by scholars for describing the records associated with this custom, including ‘cylinder seal impressed sherds’, ‘cylinder seal impressions on vessels’, and ‘sealed sherd’.⁹⁹ Besides the difficulties inherent in describing this kind of evidence in a synthetic and unequivocal way, ambiguities in terminology seem to also result from the fact that in many cases the seal-impressed sherds, or even the impressions applied directly on vessels, are considered almost as independent objects, detached from the original complete vessels of which they were part, according to a traditional art-historical approach. In the present work, the term ‘sealing’ indicates the result of impressing a seal, thus implying an active and intentional social practice, and is also used as synonym for ‘seal impression’.¹⁰⁰ To use the term ‘sealed vessel/pot’ or ‘impressed vessel/pot’ would equate here to ‘seal-impressed vessel/pot’ or ‘vessel/pot with seal impression(s)’. The ‘pot sealing practice’ or ‘pot sealing’ designate the specific practice of sealing, evidenced by recovered vessels or vessel fragments that bear one or more impressions on their surface, created before

firing, and thus permanent features of the vessels. Some overlap exists with terminologies used for describing evidence associated with other uses of seals, such as the expression ‘jar sealings’, which can be employed to indicate the seal-impressed lumps of clay attached to jar shoulders, usually covering textiles secured by strings or thongs.¹⁰¹

The pot-sealing procedure consisted of pressing stamps or rolling cylinder seals over the surface of pre-fired vessels when the clay was in a leather-like consistency. Sealing was thus integrated into the ceramic manufacturing process and, as an outcome, the impressions remained permanently bound to the vessel itself. This use of seals is distinct from the most standardised sealing procedures common in southwest Asia, which consisted of impressing clay lumps (*cretulae* and *bullae*)¹⁰² and, later, tablets. These customs represented systems aimed at managing and guaranteeing transactions for goods kept in containers or in designated spaces, or for information written on tablets and envelopes.¹⁰³ Impressing clay lumps was an administrative mechanism used at both household and central authority levels.¹⁰⁴ One of the main aspects of this traditional clay sealing custom is that seal-impressed clay lumps can be physically detached from the objects they are marking, and they can be stored as a means of record-keeping. The activity of applying clay seal lumps onto containers or locks for specially allocated spaces, and marking them with seal impressions, can be repeated, theoretically, for an endless number of times. Conversely, every seal impression applied to a vessel was part of a single event, i.e. it cannot be separated from the container unless it is broken.¹⁰⁵ Pot-sealings could not be modified after the vessel had been fired, and so the meaning(s) and functions(s) need to be investigated in the light of this aspect, which is a direct consequence of the integration of the sealing act as part of a vessel’s manufacturing process.

Vessels impressed with seals in the Levant and northeastern Syria during the 4th and 3rd millennia BCE were of diverse types, but mostly they were medium or large closed containers, used for transport, storage,

⁹⁵ E.g. Chesson 2015; Falconer 1994; McMahon 2020: 290; Paz and Greenberg 2016.

⁹⁶ For the traditional equation between urbanisation and social complexity, see, inter alia, Falconer 1987: 26, and references therein.

⁹⁷ E.g. Chesson 2015; Chesson and Philip 2003; Greenberg 2011; 2017; 2019: 70-135; Nicolle 2023: 1-2, 18; Philip 2001; 2003; 2008; Richard 2014.

⁹⁸ Greenberg 2019: 71-131.

⁹⁹ Flender 2000: 295; Thalmann 2013: 257; 281.

¹⁰⁰ Although see Thalmann 2013: 281 for an alternative interpretation.

¹⁰¹ E.g. Jans and Bretschneider 2011: 104.

¹⁰² For the different terminologies used in the literature to describe clay objects with seal impressions (clay sealings, *cretulae*, and *bullae*), see Fiandra and Frangipane 2007. The scholars propose the use of the term *cretulae* for all items of this type, with further distinctions in categories based on morphology and functions.

¹⁰³ The management system represented by seals and seal impressions assumed different degrees of complexity, depending on: the number of activities; the independence of the elements of the particular society; and the numbers of individuals involved in the transactions (Rothman 1994: 97-98, 100). Alongside this main purpose, seals and sealings had other significances, including magical values (Radner 2009-2011: 467-468).

¹⁰⁴ Ur 2010: 396-397.

¹⁰⁵ Mazzoni 1984a: 32.

and cooking purposes.¹⁰⁶ Seal-impressed vessels were typically produced within overall industries that crafted mostly unsealed vessels: sealed and unsealed vessels of the same types were not distinguished in any other ways than by the presence of the seals; impressed pots constituted only a small percentage of the containers produced.¹⁰⁷

Unfortunately, most of the ceramic assemblages documenting pot-sealing practices are represented by sherds, with whole vessels bearing intact impressions being extremely rare.¹⁰⁸ The use of the same seal for marking more than one pot is only sporadically attested.¹⁰⁹ Moreover, the relationship between seal impressions and actual seals remains unclear, since the number of seals that can be associated with impressions on pots seems to be relatively small, especially in some regions.¹¹⁰ In particular, the function of the seals found in Central and the Southern Levant, whether for pot sealing practices or used as status symbols, remains a subject of debate (see Chapter 10), and bearing in mind, too, the absence of evidence of clay sealing practices in the regions – aside from a few seal-impressed *cretulae* associated with Egyptian officials active in the Southern Levant during the second half of the 4th millennium BCE. It has been suggested that the seals used for impressing vessels were made of commonly available materials (e.g. clay, stone, wood, bone, ivory). The likely use of perishable materials in some cases means that seals might well not have survived in the archaeological record.¹¹¹ The assertion that ‘everyday’ materials were used to craft the seals may be substantiated by the simple, linear-cursory style of most engravings, with flat relief and squared edges, which may have been made locally and on a small scale.¹¹² As is evident from the Northern Levantine examples, the seals used for creating impressions on pots featured thematic repertoires largely independent from the imagery characterising the seals employed by officials working for centralised institutions, as at *Tell Mardih/Ebla*.¹¹³ The designs of the impressions on pots here are executed in a simple style that looks different from the plastic and volumetric examples of high-quality seals used by state officials. The seals featuring designs of a linear-cursory style are considered to have been manufactured on an occasional basis, by non-specialists working outside the direct control of centralised institutions, and are included within the category of ‘common glyptic’.¹¹⁴

The linear style of execution can be seen as the output of the socio-cultural milieu of non-specialised seal manufacturers, rather than just the consequence of the use of low-quality raw materials.¹¹⁵

In eastern Syria, the situation appears more fluid than that characterising the Northern Levant, and it is not possible to draw a clear distinction between seals used for impressing pots and those employed for more traditional purposes. In fact, although several of the seal-impressions on pots are characterised by flat surfaces and linear, well-defined angular edges, they also share motifs, iconographic choices,¹¹⁶ and, in some cases, manufacturing styles, with seals made for more official uses. Moreover, recent evidence from *Tell ‘Arbid* demonstrates that seals with well-modelled surfaces could have been used for impressing both *cretulae* and jars, and that the surfaces of impressions on jars were smoothed after manufacture.¹¹⁷

Pot-sealing practices extended throughout the EBA at diverse locations beyond the Levant and northeastern Syria, although circumscribed to some specific and occasional uses, possibly associated with diverse meanings and functions. Of the other places in which the practice developed during the 3rd millennium BCE,¹¹⁸ one of the most significant is EBA Greece.¹¹⁹ Pot-sealing was also practised in Iran and Iraq, as suggested by evidence from the *Kerman* region¹²⁰ and the Hamrin Valley, where coarse ware jars, used for both storage and cooking, were impressed on their rims by seals of ‘International Style’, at *Tell Gubbah* and other contemporary sites.¹²¹ After the end of the 3rd millennium BCE, pot-sealing is more sporadic and evidenced by a few, small assemblages, largely associated with the use of high-quality seals. In the 2nd millennium BCE, the custom is still present in various regions of southwest Asia, with evidence coming from *Tell Mardih/Ebla* and a few other Levantine sites,¹²² such as *Tell el-Fuḥḥār*,¹²³ as well as from Cyprus, e.g. *Maa-Palaeokastro*.¹²⁴ In Bahrein, the production of pseudo-sealed jars – consisting of seal-impressions applied on clay lumps attached to vessels prior to firing, imitating *cretulae* – is a local practice documented during the City IIb period of the first half of the 2nd millennium BCE.¹²⁵ However, a large, impressed storage jar uncovered

¹⁰⁶ Ben-Tor 1978: 40-42; Flender 2000: 295-296; Mazzoni 1992: 182-184, 192.

¹⁰⁷ Mazzoni 1992: 192.

¹⁰⁸ See Ben-Tor 1978: 40.

¹⁰⁹ E.g. Mazzoni 1993: 405.

¹¹⁰ See Genz and Ahrens 2021: 67-69, and references therein.

¹¹¹ Ben-Tor 1978: 37; Lapp 2003: 533-534; Mazzoni 1992: 191-192.

¹¹² Beck 1976: 120; Ben-Tor 1978: 40; de Miroschedji 1997: 192; Goldman 1956: 236, fig. 397: 4, 8, 14; Lapp 2003: 533-534.

¹¹³ Mazzoni 1992: 25-55.

¹¹⁴ Mazzoni 1992: 57, 190-191, 223-254; Pinnock 2013.

¹¹⁵ Mazzoni 1992: 43.

¹¹⁶ See, e.g. Binder 2020: 120-124, especially figs 113-114.

¹¹⁷ Bieliński 2016.

¹¹⁸ de Miroschedji 1997: 191; Mazzoni 1992: 133-135; 1993: 413; 2002a: 78; 2013a; 2017: 185-186; Peltenburg 1997: 139; Rova 2006: 295-296.

¹¹⁹ Aruz 1994: 212-214; Isler 1973: 175; Mazzoni 2013a: 195-198; 2017: 200; 2020: 17; Pullen 1994; Wiencke 1970.

¹²⁰ Olijdam 2008: 270-271.

¹²¹ Ii 1988; Mazzoni 1992: 133-134; Renette 2014: 247-249, and references therein.

¹²² Mazzoni 1992: 215-217.

¹²³ Strange (ed.) 2015: 231, 276, Pl. 9,7.

¹²⁴ Georgiou 2016.

¹²⁵ Olijdam 2008: 269-270, 281.

at *Failaka* in association with the ‘Temple Tower’, and dated to the same stage, would have been an import from the Bactria-Margiana area of central Asia.¹²⁶

While only sporadic evidence, consisting of impressions probably applied only as decorative friezes,¹²⁷ is known from most of southwest Asia during the 1st millennium BCE, a systematic renewal of the practice occurred in the Southern Levant for a short time during this period and is represented by the standardised manufacture of *lmlk*-storage jars, associated with the centralised administration of agricultural goods managed by the reign of Judah.¹²⁸

Brief history of research

The archaeological evidence testifying to pot-sealing practices mainly consists of sherds. However, these have been traditionally considered as ‘sealed objects’, and rarely regarded as deriving from a complete pot. Moreover, in archaeological reports, seal-impressed sherds have been largely published separately from standard ceramic analyses, being included in sections dedicated to small finds, or those focused on glyptic collections.¹²⁹ This main focus on impressions, with the sherds being considered as almost purposeless media, is also reflected by the diverse terms used to describe such records (see above, Pages 8-9).

During the earliest phases of research into seal-impressions, the Levantine materials, and especially those coming from the south, were considered not as expressions of local glyptic traditions, but rather as imports from the Aegean,¹³⁰ or imitations of Mesopotamian models.¹³¹ The Levantine glyptic testified by impressed vessels was considered as featuring a ‘peripheral’ style derived from Mesopotamian models:¹³² ‘It is of great importance to realise that the peripheral styles keep step with every development of Mesopotamian glyptic. [...] Until the end of the Third Millennium B.C. native elements played no part at all. Then, as we have seen, there came a change, at least in Syria and Northern Mesopotamia. But even now the peripheral cultures asserted themselves in a most haphazard manner, and their manifestations remained mostly subsidiary to the themes which are directly derived from Babylonia’ (Frankfort 1939: 225). Such ‘peripheral’ imitations combined elements taken from various models without any compositional, rational, technical, and esthetical qualities: ‘In the absence of

tradition we find incongruous combination of figures, [...] Eclecticism takes the place of discrimination, and a desire to escape technical difficulties often replaces the sense of style’ (Frankfort 1939: 225). Collon (1987: 140-141) considers the EBA Levantine impressions on pots to be made by seals manufactured outside the Ancient Near East proper: ‘They were not always used in the same way as in the Near East, nor is it always possible to prove a connection although generally it seems to have existed’ (Collon 1987: 140). Beck’s work (1967), emblematically entitled ‘Problems in the Glyptic Art of Palestine’, was among the earliest attempts to suggest the existence of ‘local workshops with local style’ (Beck 1967: 2). On the other hand, it was only more recently that the Levantine seal-impressed items have been recognised as expressions of an original figurative tradition, especially thanks to the work of Ben-Tor (1978), representing the first study completely centred on the Southern Levantine glyptic repertoire of the EBA. In a similar way, while the Early Syrian glyptic horizon was broadly investigated by Amiet (1963, see also Mazzoni 1992: 223), the first study completely centred on the glyptic associated with the pot-sealing practices in Syria, and beyond, is the work of Mazzoni (1984a; 1992; 1993; 2009; 2013a; 2013c; 2017), which examines the main features of the custom and its chronological development, especially focusing on the repertoire from *Tell Mardih/Ebla*. Thanks to the noteworthy assemblage of complete vessels found in situ at this site, Mazzoni’s work was the first to systematically analyse the manufacture of impressed pots – both in the light of developments of glyptic traditions as well as ceramic production. This work includes a foundational assessment of the sherds from *Byblos* that has become the basis for all future studies of Central Levantine impressed vessels. This latter assemblage has been recently enriched by several discoveries, including the corpora from *Sidŏn/Šaidā*¹³³ and *Tell Fad’ūs/Kfar ‘Abida*.¹³⁴

Other studies commonly consist of analyses of impressed ceramics from a single region, territory,¹³⁵ or specific sites,¹³⁶ or are wide-ranging overviews including a variety of glyptic evidence.¹³⁷

Materials

The primary object of this present research is the corpus of seal-impressed ceramics from *Ĥirbet ez-Zeraqŏn*. This assemblage has been contextualised within the broader geographical setting of the entire

¹²⁶ ‘Bactrian-Margiana Archaeological Complex’, c. 1900-1750 BCE (Olijdam 2008: especially 271-284).

¹²⁷ Mazzoni 1992: 218.

¹²⁸ Lipschits *et al.* 2010.

¹²⁹ E.g. Amiet 1993.

¹³⁰ Sellin and Watzinger 1913: 106.

¹³¹ E.g. Collon 1987; Frankfort 1939; Nougayrol 1939; Parker 1949. See also Engberg and Shipton 1934b: 93.

¹³² Frankfort 1939: 230-232; Parker 1949: 1-3.

¹³³ Doumet-Serhal 2006a; 2009a; 2015.

¹³⁴ Genz and Ahrens 2021.

¹³⁵ E.g. Ben-Tor 1985a; 1995; de Miroshedji 1997; Flender 2000; Genz 2021; Greenberg 2001; Joffe 2001; Nicolle 1997; Rova 2006; Pinnock 2013.

¹³⁶ E.g. Ben-Tor 1994; 2003; 2017; Bieliński 2009; 2016; Braun 2004; 2005; Flender 1995; Genz 2007-2009; Greenberg 1992; 2003; 2013; Jans and Bretschneider 2011; Joffe 2000a; Rova 2008.

¹³⁷ E.g. Felli 2015; Matthews 1997a.

The majority of the evidence is represented by single sherds uncovered from individual sites, only a few repertoires are constituted by more than a handful of items. The largest regional assemblage is the Levantine one, especially the 426 examples from the Southern Levant, including the 155 objects from *Ḥirbet ez-Zeraqŏn* and 271 impressed items from 65 other settlements. Of the 189 examples from 24 sites in the Northern Levant, the majority are represented by the large corpora from *Ḥama* and *Tell Mardīḥ/Ebla*. The 167 seal-impressed finds from the Central Levant derive from only seven sites, and the most numerous groups are those from *Byblos*, *Sidŏn/Ṣaidā*, and *Tell Fad'ūs Kfar 'Abīda*. Fewer items are known from the Jezirah and the Middle Euphrates. Here, 41 and 44 seal-impressed objects come, respectively, from nine and 16 different sites.

Only a small part of this evidence is represented by complete or restorable vessels uncovered in primary find contexts, and the most noteworthy repertoire consists of a large number of complete jars buried in situ under the collapsed structures of the Royal Palace G at *Tell Mardīḥ/Ebla*.¹⁴⁰ Otherwise, the great majority of the evidence consists of single potsherds from secondary or uncertain contexts, or surface finds.¹⁴¹

Classification and organisation of the materials

The seal-impressed items from *Ḥirbet ez-Zeraqŏn* are listed using the registration number given by the excavators (see Page 26), and they are arranged in the *Ḥirbet ez-Zeraqŏn* Catalogue according to groups of representational images, following the classification described on Page 36. For organisational purposes, the rest of the material is organised according to geographical areas of provenience, using the regional acronyms suggested by the ARCANÉ Project:¹⁴² SL for 'Southern Levant', CL for 'Central Levant', NL for 'Northern Levant', ME for 'Middle Euphrates', JZ for 'Jezirah'. Each site is labelled with the abbreviation of the name of the region, followed by an incremental number (e.g. JZ-001; JZ-002, etc.), given with no pre-defined order.¹⁴³ Further incremental numbers added to each site's label, after a point, correspond to unique identifiers given to the objects recovered from the site (e.g. JZ-001.1; JZ-001.2, etc.). In the Tables of Finds (Appendixes A-E), the objects analysed in the present work are listed per each region according to IDs, and these same IDs are used in the text for referring to

the records.¹⁴⁴ In each Table of Finds, information about each item is given, including description of ceramic features, sealing technique, representation, contextual data, and primary references. In the column 'Chronological Information' are data of find context, ceramic, and representation, while in the column 'Dating' is the chronological attribution, provided after the evaluation of the data according to the methodology illustrated below.

Methods

The methodological approach employed in the present study was aimed at maximising comparability and integration of the data derived from the analysis of the *Ḥirbet ez-Zeraqŏn* corpus and evidence from existing collections of published materials from elsewhere in the Levant and northeastern Syria.

The examination of the *Ḥirbet ez-Zeraqŏn* seal-impressed ceramics benefitted from the opportunity to conduct in-depth analyses of the ceramic sherds and the sealing techniques, allowing the author to evaluate aspects of the manufacturing processes of the impressed pots. Moreover, the investigation of the find contexts has offered the possibility of evaluating production and consumption patterns in relation to the configuration and history of the site, as well as post-depositional processes that affected the visibility of the archaeological materials.

Although the data that can be gained from the published materials is often less detailed, the analytical approach presented here made possible the best use of the information provided to define the main features of the ceramics, sealing techniques, and the images depicted on the impressions. As for the ceramic, the establishment of a clear classification is not only influenced by the existence of a range of diverse pottery types impressed in the region, but it is also complicated by the different resolutions of contextual information given in the publications – if any is provided at all. Additional complications derive from the various types of ceramic categorisations used, ranging from formal typologies to functional and technological classifications, and, sometimes, to a mix of these. The analyses of the types of representation have been based on the identification of motif/thematic groups sharing the same or similar components, distinct

¹⁴⁰ Mazzoni 1984a; 1984b; 1992; 1993.

¹⁴¹ See Flender 2000: 296.

¹⁴² <http://www.arcane.uni-tuebingen.de/arcanemap.html> (accessed 27 September 2022); Lebeau 2011a: 3–7.

¹⁴³ Although inspired by the ARCANÉ classification system, these site numbers do not directly correspond to those of the ARCANÉ project, but represent identifiers unique to the present study.

¹⁴⁴ The unpublished materials from *Ḥama* have been accounted for within the records of the 'Northern Levant' (Chapter 6), and the preliminary information gathered in the course of the study of these objects (Vacca *et al.*, forthcoming) has been used in the evaluation of the features of the regional assemblage. However, these items have not been listed in the 'Table of Finds of the Northern Levant' (Appendix C). Detailed information will be published in a comprehensive work on the seal-impressed pots from the site (Tumolo *et al.*, forthcoming).

among geometric, floral/vegetal, and figurative types of images. The attribution to specific types of representation is not always straightforward, either because diverse motifs can be combined in a large array of compositions or because preservation conditions do not allow us to clearly identify depicted elements, so that, in some cases, features can only be attributed to broad and unspecified types of images.

The chronological assessment suggested by the present study is based primarily on an evaluation of both the find contexts of the seal-impressed objects and the types of pottery, and then on the features of the representations. Both comparative aspects and the chronological attributions suggested by other scholars have been considered throughout our analyses.

As for the chronological information given by the find contexts,¹⁴⁵ as already mentioned, only a limited amount of evidence exists from complete shapes found in situ. These include only a few examples, e.g. an almost complete pithos found under the collapse of the structure of the palace complex at *Hirbet ez-Zeraqōn*, and the vessels found in several locations of the Royal Palace G at *Tell Mardih/Ebla*, probably crushed in the place of their use. These finds represent primary chronological indicators, as do the storage vessels left empty in other spaces of the same palace, which can be considered as ‘provisional discards’: still usable items stored in dedicated places after their primary use.¹⁴⁶ On the other hand, most of the evidence, which consists of single potsherds, represents either primary/*de facto* refuse discarded in the same contexts where they were uncovered, or secondary refuse deposited after the effects of post-depositional events, which included fragmenting and transporting the sherds along both horizontal and vertical trajectories.¹⁴⁷ This highlights the inevitable biases or problems caused by site formation processes that can affect the archaeological records, and, as a consequence, influence the interpretation of the role of impressed sherds (and the vessels they were once part of) in the past. On the other hand, the find contexts of sherds offer a *terminus ante quem* for both manufacture and use of the pots they originated from. In the same way as for diagnostic sherds from stratified contexts,¹⁴⁸ the seal-impressed sherds can be used as chronological indicators, and the combination of presence/absence and frequency data can be used as a parameter for building evidence-based chronotypological sequences.¹⁴⁹ The representations of the

seal impressions on pots from controlled stratigraphic contexts have been considered as good chronological reference points. On the basis of this, the recurring associations of ceramics and types of representation found in contexts of diverse sites allow us to build up a chronological sequence based on stratigraphic principles.

Furthermore, information given by studies on the broader ceramic industries affected by pot-sealing customs, as well as iconographic parallels from other types of glyptic, have also been taken into account. In the latter case, the limits of the approaches traditionally used for dating glyptic material, i.e. inferring chronological information from imagery, have been considered throughout the entire study. Seals might be in use for a long time after manufacture: ‘Furthermore, while dating glyptic is often assumed to be contextual, it is more often the case that contexts are used to date glyptic objects’ (McCarthy 2011: 288).

Terminological note

As is generally the case with research on visual arts in southwest Asia, studies of glyptic have been built on terminologies and categorisations often used in a variety of ways. This especially applies to the definition of style, whose meaning has been the subject of debate in all studies of visual arts and material culture in general, being central to the discourse of interpreting the social and ideological meaning of objects.¹⁵⁰

Numerous definitions of style have been given by scholars in relation to artifacts, such as the ‘characteristic manner of expression, execution, construction, or design’, ‘a customary manner of doing or producing things’, and ‘the material manifestation of a body or rules (written or not) that are shared among a group of people in a given time and place’,¹⁵¹ among others. They variously include concepts of ‘way of doing’, variations, and identities.¹⁵² Styles are directly linked to the skills of the craftsmen and the quality of the material used, and are, therefore, individual for each artist/artisan. Moreover, in all pre-Renaissance art practice, style is considered to have been largely unselfconscious.¹⁵³ Decorative style is often thought to be ‘less indicative of social identities than are technological traditions’ (Chilton 1998: 133), as is evident from both archaeological and ethnographic studies on diverse material culture expressions.¹⁵⁴ On the other hand, the formal appearance of material

¹⁴⁵ Following the distinction already suggested by Matthews (1997a: 13), the term ‘context’ is used, in the present study, in the meaning of ‘archaeological context’ and never ‘stylistic context’.

¹⁴⁶ See Deal 1985; Hayden and Cannon 1983; Joyce and Joannessen 1993.

¹⁴⁷ Genz 2002: 93–94; Schiffer 1983: 678, 685, 692–696; see also Shahack-Gross 2017.

¹⁴⁸ E.g. Genz 2002; Sconzo 2013; Vacca 2020: 83.

¹⁴⁹ For a more in-depth description of the methodological approach

applied to the investigation of the assemblage from *Hirbet ez-Zeraqōn*, see Chapter 3.

¹⁵⁰ E.g. Conkey and Harstorf 1990; Hurt *et al.* 2001; Sackett 1977.

¹⁵¹ Hill 1985: 374.

¹⁵² See David and Kramer 2001: 170–173.

¹⁵³ Elsner 2003: 107.

¹⁵⁴ Chilton 1998: 133–134.

objects, especially in the association of style and iconography, has been considered as a taxonomic tool for identifying groups of artifacts manufactured by specific workshops,¹⁵⁵ and even characteristic of a particular region or period (the ‘standard approach’ in space-time systematics).¹⁵⁶

In research on the glyptic of southwest Asia, style has been defined according to diverse criteria, ranging from more descriptive (e.g. figurative, linear, etc.) to more interpretative ones, mostly based on formalist approaches that analyse products through sets of antithetical concepts, such as ‘official vs. ‘popular’.¹⁵⁷ Since glyptic style was often equated to workshops and geographical and/or socio-political entities, it was charged with cultural, socio-political, and chronological values.¹⁵⁸

In the present work, the primary significance of the term ‘style’ is seen as the ‘manner in which imagery is carved’ (Pittmann 2007: 299), and, more specifically, the formal appearance that emerges from the materiality of

the depiction. Moreover, stylistic taxonomic categories used for classifying objects associated with specific chrono-geographical and socio-cultural horizons (e.g. ‘International Style’), according to a tendency of categorising similar visual features as characteristic of specific material cultures,¹⁵⁹ is quoted in respect to the literature on the specific topics mentioned in course of the work. Stylistic aspects of the manufacture of seals used for impressing pots and the relationship with other contemporary glyptics are analysed in-depth in Chapter 10.

The terms ‘motif’ and ‘design’ are used as synonyms here,¹⁶⁰ as well as the term ‘pattern’, which mostly refers to repeated geometric images or designs. The word ‘iconography’ is employed to describe visual images, symbols and recurring types of depiction characterised by fixed elements. It is generally stated that the presence of a standard iconography can be assumed by the general uniformity of the representations, while iconographic variation from standardised models would suggest the existence of diverse productions.¹⁶¹

¹⁵⁵ Di Paolo 2014, 117-118, and references therein. ‘Style [...] is a useful category through which to describe distinguishing characteristic within a glyptic corpus. It can reveal both production practices and individual workshops’ (Pittman 2007: 299).

¹⁵⁶ See Sackett 1977: 374-377.

¹⁵⁷ Di Paolo 2014: 122-123.

¹⁵⁸ Dittmann 2001: 98-99; see also Matthews 1997a: 3-4; Stein 2006: 20.

¹⁵⁹ Elsner 2003: 104, and references therein.

¹⁶⁰ The terms ‘motif’ and ‘design’ have instead been distinguished by Binder (2020: 19), considering ‘motif’ a more general term, designating the broad theme (e.g. ‘banquet’ or ‘contest’), while with the term ‘design’ the scholar indicates each individual rendering of a motif.

¹⁶¹ E.g. Porada 1977: 8-11; Collon 1982: 178; Teissier 1984: xxviii.