



# **SALVAGE EXCAVATIONS AT TEL QASHISH (TELL QASIS) AND TELL EL-WA'ER (2010–2013)**

Edwin C. M. van den Brink | Matthew J. Adams (eds.)

Salvage Excavations at Tel Qashish (Tell Qasis)  
and Tell el-Wa'er (2010–2013)

# Jezreel Valley Regional Project Studies

*Series Editors*

Matthew J. Adams  
Margaret E. Cohen

NUMBER ONE

Salvage Excavations at Tel Qashish (Tell Qasis)  
and Tell el-Wa'er (2010–2013)

# Salvage Excavations at Tel Qashish (Tell Qasis) and Tell el-Wa'er (2010–2013)

*Edited by*

Edwin C. M. van den Brink and Matthew J. Adams



LOCKWOOD PRESS

Columbus, Georgia

2023

## Salvage Excavations at Tel Qashish (Tell Qasis) and Tell el-Wa'er (2010–2013)

Copyright © 2023 by Lockwood Press

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by means of any information storage or retrieval system, except as may be expressly permitted by the 1976 Copyright Act or in writing from the publisher. Requests for permission should be addressed in writing to Lockwood Press, PO Box 1080, Columbus, GA 31901, USA.

ISBN: 978-1-948488-65-5

Cover design by Susanne Wilhelm. Cover image: Aerial view of Tel Qashish and Tell el-Wa'er from the south. Photograph by Matthew J. Adams.

### Library of Congress Cataloging-in-Publication Data

Names: Brink, Edwin C. M. van den, editor. | Adams, Matthew J. (Matthew Joel), editor.

Title: Salvage excavations at Tel Qashish (Tell Qasis) and Tell el-Wa'er (2010-2013) / edited by Edwin C. M. van den Brink and Matthew J. Adams.

Description: Columbus, Georgia : Lockwood Press, 2023. | Series: Jezreel Valley regional project studies ; number 1 | Includes bibliographical references and index.

Identifiers: LCCN 2022052512 (print) | LCCN 2022052513 (ebook) | ISBN 9781948488655 (paperback) | ISBN 9781948488662 (pdf)

Subjects: LCSH: Qashish Site (Israel) | Wa'er Site (Israel) | Excavations (Archaeology)--Israel--Jezreel Valley. | Bronze age--Israel--Jezreel Valley. | Jezreel Valley (Israel)--Antiquities.

Classification: LCC DS110.Q317 S25 2023 (print) | LCC DS110.Q317 (ebook) | DDC 956.94--dc23/eng/20221114

LC record available at <https://lcn.loc.gov/2022052512>

LC ebook record available at <https://lcn.loc.gov/2022052513>



*In Memoriam*  
Sharon Zuckerman  
(1965–2014)



Photograph courtesy of Amnon Ben-Tor



# Contents

<i>List of Figures</i>	IX
<i>List of Tables</i>	XV
<i>Preface</i>	XVII
<i>Acknowledgments</i>	XIX
<i>Abbreviations</i>	XXI
Part I: Introduction	
Chapter 1 Introduction: The History of the Project and Overview of the Sites ( <i>Matthew J. Adams and Edwin C. M. van den Brink</i> )	3
Chapter 2 The Environs of Tel Qashish: Physiography and Geomorphology ( <i>Oren Ackermann and Noam Greenbaum</i> )	13
Part II: Tel Qashish West (Middle Paleolithic and Epipaleolithic)	
Chapter 3 Middle Paleolithic and Epipaleolithic Flint Procurement and Associated Workshops West and South of Tel Qashish ( <i>Alla Yaroshevich, Dan Kirzner, Hamudi Khalaily, Oren Ackermann, and Noam Greenbaum</i> )	25
Part III: Tell el-Wa'ér (Early Bronze Age)	
Chapter 4 Early Bronze Age I Settlement Remains at Tell el-Wa'ér ( <i>Orit Segal, Dan Kirzner and Uzi 'Ad</i> )	55
Chapter 5 The Early Bronze Age Pottery Assemblage from Tell el-Wa'ér ( <i>Edwin C. M. van den Brink</i> )	69
Chapter 6 Groundstone and Metal Tools from Tell el-Wa'ér ( <i>Edwin C. M. van den Brink</i> )	79
Chapter 7 Lithic Artifacts from Tell el-Wa'ér ( <i>Polina Spivak</i> )	85
Chapter 8 Faunal Remains from Tell el-Wa'ér ( <i>Ronit Zuckerman-Cooper</i> )	89
Chapter 9 Salvage Excavations at Tell el-Wa'ér: Discussion and Conclusions ( <i>Orit Segal and Edwin C. M. van den Brink</i> )	91
Part IV: Tel Qashish (Early Bronze Age)	
Chapter 10 The Tel Qashish Late Early Bronze Age I Salvage Excavations: Introductory Notes ( <i>Edwin C. M. van den Brink</i> )	95
Chapter 11 Tel Qashish Areas A–D: Stratigraphy and Structural Features (2010 Excavations) ( <i>Edwin C. M. van den Brink, Uzi 'Ad, Dan Kirzner, Eli Yannai, Mohammed Hater, and Orit Segal</i> )	99
Chapter 12 Tel Qashish Areas F and E South: Stratigraphy and Structural Features South (2010 Excavations) ( <i>Eli Yannai</i> )	115



Chapter 13	Tel Qashish Area E North: Stratigraphy and Structural Features (2011 Excavations) ( <i>Edwin C. M. van den Brink, Uzi 'Ad, Dan Kirzner, Eli Yannai, Mohammed Hater, and Orit Segal</i> )	121
Chapter 14	Pottery from Tel Qashish Areas A, B, C and D ( <i>Edwin C. M. van den Brink</i> )	133
Chapter 15	Pottery from Tel Qashish Areas E South and F ( <i>Netanel Paz</i> )	161
Chapter 16	Pottery from Tel Qashish Area E North ( <i>Edwin C. M. van den Brink</i> )	177
Chapter 17	Petrographic Analysis of the Early Bronze Age Pottery from Tel Qashish ( <i>Anat Cohen-Weinberger</i> )	217
Chapter 18	A Cylinder Seal Impression from Tel Qashish Area E North ( <i>Edwin C. M. van den Brink</i> )	223
Chapter 19	The Groundstone Assemblage from Tel Qashish ( <i>Ianir Milevski</i> )	227
Chapter 20	The Late Early Bronze Age I Flint Assemblages from Tel Qashish Areas A–F ( <i>Alla Yaroshevich</i> )	239
Chapter 21	Faunal Remains from the Margins of Tel Qashish, Area E ( <i>Nuha Agha</i> )	269
Chapter 22	Microvertebrate Remains from the Margins of Tel Qashish, Area E South ( <i>Lior Weisbrod</i> )	281
Chapter 23	Plant Remains from Late Early Bronze Age I Deposits from Tel Qashish Area E South ( <i>Ehud Weiss and Yael Mahler-Slasky</i> )	285
Chapter 24	Salvage Excavations at Tel Qashish: Discussion and Conclusions ( <i>Edwin C. M. van den Brink</i> )	297
Part V: A Late Bronze Age II Cultic Repository at Tel Qashish		
Chapter 25	A Late Bronze Age II Cultic Repository near Tel Qashish in the Jezreel Valley, Israel ( <i>Orit Segal, Uzi 'Ad, and Edwin C. M. van den Brink</i> )	307
Chapter 26	Petrographic Study of Late Bronze Age II Vessels from the Cultic Repository near Tel Qashish ( <i>Anat Cohen-Weinberger</i> )	395
Chapter 27	The Cypriot Pottery from the Late Bronze Age II Cultic Repository near Tel Qashish ( <i>Celia J. Bergoffen</i> )	403
Chapter 28	Provenience of Late Bronze Age II Pottery from the Cultic Repository near Tel Qashish ( <i>Joseph Yellin, Matthew T. Boulanger, and Michael D. Glascock</i> )	407
Chapter 29	Residue Analysis of Chalices from the LBA IIA Cultic Cache from Tel Qashish ( <i>Dvory Namdar</i> )	417
	<i>Index</i>	423

## List of Figures

Fig. 1.1.	General map of the southern Levant.	4
Fig. 1.2.	Map of the Jezreel Valley.	4
Fig. 1.3.	Map of Tel Qashish region with the locations of the salvage excavations by permit number.	5
Fig. 1.4.	Map of Tel Qashish and adjacent sites.	5
Fig. 1.5.	Aerial view of Qashish region after the completion of infrastructure works, looking north-northwest through the Kishon water gap.	6
Fig. 1.6.	Aerial view of Qashish region after the completion of infrastructure works, looking south toward Yoqne'am.	7
Fig. 1.7.	Aerial View of the hillock of Tell el-Wa'ér.	8
Fig. 1.8.	Map of Tel Qashish showing excavation Areas A–F over 2020 orthophoto.	10
Fig. 2.1.	Location of the site and main geographical features.	14
Fig. 2.2.	Air photograph of the area and location of the studied sections.	14
Fig. 2.3.	Square ZY29, looking east.	15
Fig. 2.4.	Square L29: Trench probe.	15
Fig. 2.5.	Square L29.	16
Fig. 2.6.	Square D16, looking at azimuth 210°.	16
Fig. 2.7.	Trench probe section TQ1.	16
Fig. 2.8.	Trench probe section TQ2.	17
Fig. 2.9.	Trench probe section TQ3.	17
Fig. 3.1.	Location map of the sites mentioned in the text.	26
Fig. 3.2.	Aerial view of the region with indications of the sites mentioned in the text.	27
Fig. 3.3.	TQW during the excavations, looking southeast.	28
Fig. 3.4.	TQW, stratigraphic sequence in Square C6 during excavation.	28
Fig. 3.5.	TQW Levallois core made on homogeneous brown flint.	29
Fig. 3.6.	TQW, Levallois core, on nonhomogeneous flint.	29
Fig. 3.7.	TQW, Levallois point, made on homogeneous brown flint.	29
Fig. 3.8.	TQW, retouched Levallois flake on nonhomogeneous flint.	29
Fig. 3.9.	TQW, Levallois flake on homogeneous flint with concentric bands, seen on dorsal surface.	29
Fig. 3.10.	TQW, retouched Levallois flake made on homogeneous flint with concentric bands.	30
Fig. 3.11.	TQW, Levallois flake made on homogeneous coarse-grained flint.	30
Fig. 3.12.	TQW, Levallois core, hinged at the beginning of the reduction.	30
Fig. 3.13.	TQW, hinged Levallois core on balk.	30
Fig. 3.14.	TQW, cortical tools and debitage.	30
Fig. 3.15.	TQW, tested flint nodule.	31
Fig. 3.16.	TQW, Levallois cores.	31
Fig. 3.17.	TQW, Levallois cores.	31
Fig. 3.18.	TQW, Levallois cores.	32
Fig. 3.19.	TQW, Levallois points.	32
Fig. 3.20.	TQW, Levallois products.	32
Fig. 3.21.	TQW, naturally backed knives; some exhibit signs of modification or use.	32
Fig. 3.22.	TQW, blade core and bladelet core.	33
Fig. 3.23.	TQW, tools on PE and cortical items.	33

Fig. 3.24.	TQW, the hand axe.	33
Fig. 3.25.	TQW, distribution of Levallois cores, products, and NBK according to length.	34
Fig. 3.26.	TQS during the second excavation season, looking south.	35
Fig. 3.27.	TQS, stratigraphic sequence.	35
Fig. 4.1.	Location map of Tell el-Wa'er.	56
Fig. 4.2.	Aerial photograph showing the location of Tell el-Wa'er.	56
Fig. 4.3.	Tel Qashish and Road 70 to the southeast of the excavation site. Looking southeast.	56
Fig. 4.4.	Plan and sections of the exposed Early EB I village.	57
Fig. 4.5.	Aerial view of squares A/B 13–16, building units 10–11.	58
Fig. 4.6.	Aerial view of squares A/B 18–25, building units 3–9, 13–15.	58
Fig. 4.7.	Square A10, unit 1.	59
Fig. 4.8.	Square A11, unit 2.	59
Fig. 4.9.	Squares B18/19, unit 3.	59
Fig. 4.10.	Square A19, unit 4.	59
Fig. 4.11.	Square B/C24, unit 5.	60
Fig. 4.12.	Square B/C24, B25, units 5 and 6.	60
Fig. 4.13.	Square B24/25, units 5 and 6.	60
Fig. 4.14.	Squares A24/25, unit 7.	61
Fig. 4.15.	Squares A15, A/B16, unit 10.	61
Fig. 4.16.	Squares A20–A21, unit 13.	62
Fig. 4.17.	Squares B20–B22, unit 14.	62
Fig. 4.18.	Square B20, unit 14.	62
Fig. 5.1.	Bowls.	71
Fig. 5.2.	Holemouth jars and kraters.	72
Fig. 5.3.	Necked jars and pithoi.	74
Fig. 5.4.	Handles.	76
Fig. 6.1.	Selection of groundstone vessels from Tell el-Wa'er.	80
Fig. 6.2.	The two axe heads before cleaning (L214, B2033.1–2).	80
Fig. 6.3.	The two axe heads after cleaning (L214, B2033.1–2).	81
Fig. 6.4.	Locus 214, Basket 2033.1–2.	81
Fig. 7.1.	Chalcolithic–Early Bronze Age sickle blades from Tell el-Wa'er.	86
Fig. 7.2.	A Chalcolithic tabular fan scraper, PPNB sickle blade, and Late Chalcolithic sickle blade from Tell el-Wa'er.	86
Fig. 10.1.	Map showing the location of Tel Qashish in northern Israel.	96
Fig. 10.2.	Plan of excavation Areas A–F around Tel Qashish.	96
Fig. 10.3.	Aerial view of Areas E South and North in the southeast margin of Tel Qashish.	97
Fig. 11.1.	Plan of excavation Areas A–F around Tel Qashish.	100
Fig. 11.2.	Area A1. Aerial view.	101
Fig. 11.3.	Area A1. Plan, trenches and sections.	101
Fig. 11.4.	Area A2. Plan and sections.	102
Fig. 11.5.	Area B. Plan and sections.	103
Fig. 11.6.	Area B. Aerial photograph.	104
Fig. 11.7.	Area B. LB II repository during excavation.	104
Fig. 11.8.	Area C. Squares G29–H29.	104
Fig. 11.9.	Area C. Squares L28/29–P28/29.	105
Fig. 11.10.	Area C. Plan of Squares R28/29/30–V28/29/30.	106
Fig. 11.11.	Area C. Plan and sections of Squares W28/29–ZD28/29.	108
Fig. 11.12.	Area C. Plan of Squares ZI29–ZJ29.	109
Fig. 11.13.	Aerial view of Area C and the tell of Qashish.	109

Fig. 11.14.	Aerial view of Areas C and D.	109
Fig. 11.15.	Area C. Square L29, small-limestones surface (Locus 311).	109
Fig. 11.16.	Area C. Square L28. Installation L348 during excavation.	109
Fig. 11.17.	Area C. Square L28. Installation L348 after excavation.	110
Fig. 11.18.	Area C. Small-limestones surface and W30 and W31.	110
Fig. 11.19.	Area C. Small-limestones surface and W30 and W31.	110
Fig. 11.20.	Area C. Aerial view of Squares R28/29/30–V28/29/30.	110
Fig. 11.21.	Area C. General view of Squares U28/29–V28/29.	111
Fig. 11.22.	Area C. Square U28. Stone-paved installation/W35 and W33.	111
Fig. 11.23.	Area C. Squares U28/29–V28/29.	111
Fig. 11.24.	Area C. Square X29. Remains of a partially preserved installation.	111
Fig. 11.25.	Area C. Square Y29, Locus 347.	111
Fig. 11.26.	Area D. Square ZM29, plan and section.	111
Fig. 11.27.	Area D. Squares ZP29–ZS29, plan and sections.	112
Fig. 11.28.	Area D. Square ZY29. Plan.	113
Fig. 11.29.	Area D. Squares ZP29–ZS29.	113
Fig. 12.1.	Area F. Plan and sections.	116
Fig. 12.2.	Area F, Square J24, L6059.	116
Fig. 12.3.	Area F, Square J24, L6049.	116
Fig. 12.4.	Area F, Square H26, L6013.	117
Fig. 12.5.	Area F, Square H29, Locus 6048.	117
Fig. 12.6.	Plan of Area E South.	118
Fig. 12.7.	Area E, Squares I64–J64, Loci 5023 and 5047.	119
Fig. 12.8.	Area E, Square J64, L5047, W506.	119
Fig. 12.9.	Area E, Square I64, Locus 5023, W501.	119
Fig. 12.10.	Area E, Square I62, L5003.	119
Fig. 12.11.	Area E, Square M57, L5050.	119
Fig. 12.12.	Area E, Square K54, L5017.	119
Fig. 12.13.	Area E, Square K54, L5017.	120
Fig. 12.14.	Area E, Square K54, L5045.	120
Fig. 13.1a	(spread). Plan of Area E South.	122
Fig. 13.1.b.	E–W cross-sections 1-1 and N–S cross-sections 2-2 of Area E South.	124
Fig. 13.2.	Tel Qashish. Bird eye's view of Area E.	125
Fig. 13.3.	Tel Qashish. Aerial view of Area E at the end of the excavation.	125
Fig. 13.4.	Area E, Square L55, Locus 5138, W518.	126
Fig. 13.5.	Area E, Square L56, Locus 5102.	126
Fig. 13.6	Area E, Square M56, Locus 5050.	126
Fig. 13.7.	Area E, Square K58, W516, W521, and W522, and Locus 5131.	127
Fig. 13.8.	Area E, Squares K/L59–60.	128
Fig. 13.9.	Area E, Square K58.	128
Fig. 13.10.	Area E, Square L60, W517.	128
Fig. 13.11.	Area E, Squares K–L59–L60–61, M59–60, N59–62, O60–63.	128
Fig. 13.12.	Area E, Squares M–O/59–63.	129
Fig. 13.13.	Area E, Squares M–O/59–60.	129
Fig. 13.14	Area E, Square O62, W500.	130
Fig. 14.1.	Areas A1–2. Selection of Late EB I pottery. Bowls and Jars.	137
Fig. 14.2.	Area B. Selection of Late EB I pottery. Bowls and Holemouth jars.	138
Fig. 14.3.	Area B. Selection of Late EB I pottery. Jars.	140
Fig. 14.4.	Area C. Chart showing numeric breakdown of Late EB I vessel types.	141

Fig. 14.5.	Area C. Selection of Late EB I pottery. Bowls and kraters.	142
Fig. 14.6.	Area C. Selection of Late EB I pottery. Other bowls.	144
Fig. 14.7.	Area C. Selection of Late EB I pottery. Holemouth jars.	146
Fig. 14.8.	Area C. Selection of Late EB I pottery. Holemouth jars (cont.).	148
Fig. 14.9.	Area C. Selection of Late EB I pottery. Bow-rim jars.	150
Fig. 14.10.	Area C. Selection of Late EB I pottery. Bow-rim jars (cont.).	152
Fig. 14.11.	Area C. Selection of Late EB I pottery. Other necked jars, handles.	154
Fig. 14.12.	Area C. Selection of Late EB I pottery. Other necked jars, handles.	156
Fig. 14.13.	Area D. Selection of Late EB I pottery.	158
Fig. 15.1.	Areas E (South) and F. Bowls and kraters.	167
Fig. 15.2.	Areas E (South) and F. Small closed vessels: gourd jars and teapots.	168
Fig. 15.3.	Areas E (South) and F. Holemouth jars with simple rim.	168
Fig. 15.4.	Areas E (South) and F. Holemouth jars with thickened rim.	170
Fig. 15.5.	Areas E (South) and F. Holemouth jars with ridged and squared-off rims.	171
Fig. 15.6.	Areas E (South) and F. Storage jars with short straight necks and short everted necks.	172
Fig. 15.7.	Areas E (South) and F. Bow-rim storage jars.	173
Fig. 15.8.	Areas E (South) and F. Storage Jars with simple rounded and cut rims; pithoi.	174
Fig. 15.9.	Areas E (South) and F. Handles.	175
Fig. 15.10.	Main vessel-type frequency in Area E (South).	176
Fig. 15.11.	Main vessel-type frequency in Area F.	176
Fig. 15.12.	Main vessel-type frequency for Areas E (South) and F.	176
Fig. 16.1.	Total number of body sherds vs. diagnostic sherds.	178
Fig. 16.2.	Frequency of diagnostic potsherds.	179
Fig. 16.3.	Area E North. Bowls and kraters.	180
Fig. 16.4.	Area E North. Red-slipped bowls or kraters with profiled rim, and small knobbed bowls.	182
Fig. 16.5.	Area E North. Gray burnished ware bowls.	184
Fig. 16.6.	Area E North. Small bowls.	186
Fig. 16.7.	Area E North. Holemouth jars and cooking jars with potmarks and slashes.	188
Fig. 16.8.	Area E North. Holemouth jars with applied rope decoration below rim's exterior.	190
Fig. 16.9.	Area E North. Holemouth jars with applied rope decoration below rim's exterior (cont.)	192
Fig. 16.10.	Area E North. Holemouth jars with continuous ridge below rim's exterior.	194
Fig. 16.11.	Area E North. Plain holemouth jars.	196
Fig. 16.12.	Area E North. Plain holemouth jars, flattened rim.	198
Fig. 16.13.	Area E North. Plain holemouth jars.	200
Fig. 16.14.	Area E North. Bow-rim jars.	202
Fig. 16.15.	Area E North. Bow-rim jars (cont.).	204
Fig. 16.16.	Area E North. Bow-rim jars (cont.).	206
Fig. 16.17.	Area E North. Bow-rim jars. Bases.	208
Fig. 16.18.	Area E North. Amphoriskoi, jugs, tall-necked jars.	210
Fig. 16.19.	Area E North. Jug/small jar bases, short-necked jars, pithoi.	212
Fig. 16.20.	Area E North. Indented ledge handles and loop handles.	214
Fig. 18.1.	Tel Qashish, Area E North. Neck-shoulder fragment of medium-sized jar bearing a cylinder seal impression.	225
Fig. 18.2.	1. Full picture of the jar fragment from Tel Qashish, Area E North. 2. Vessel fragment of indeterminate type from Megiddo bearing a cylinder seal impression.	225
Fig. 19.1.	Lower and upper grinding stones.	234
Fig. 19.2.	Mortars.	235
Fig. 19.3.	Hammerstones, pounders, and perforated stones.	236
Fig. 19.4.	Tournettes and Chalcolithic-period bowls.	237

Fig. 19.5.	Early Bronze Age I bowls.	238
Fig. 19.6.	Varia: A bell-shaped object.	238
Fig. 20.1.	Location map of the areas excavated on the margins of Tel Qashish.	240
Fig. 20.2	a–d. A variety of tools exemplifying the flint varieties used at the site.	240
Fig. 20.3	a–j. Representative Canaanite blades and sickle blades (fragments).	242
Fig. 20.4.	Knife on Canaanite blade.	243
Fig. 20.5.	Large cortical blade with gentle retouch and faceted platform and two knives.	243
Fig. 20.6.	End scraper with cortex remains.	244
Fig. 20.7.	The Canaanite blade core from Har Ḥaruvim.	244
Fig. 20.8.	Canaanite sickle blade made on coarse-grained flint with tiny black spots.	244
Fig. 20.9.	A core at the beginning of the reduction sequence.	244
Fig. 20.10.	Sickle blades and blade cores from Areas E South and F.	253
Fig. 20.11.	Cores from Areas C and D.	254
Fig. 20.12.	Bladelet cores and burin from Areas C, D, and E North.	255
Fig. 20.13.	Levallois point and retouched flakes from Area D. Middle Paleolithic intrusion.	256
Fig. 20.14.	Middle Paleolithic and Epipaleolithic/Upper Paleolithic intrusions.	257
Fig. 20.15.	Canaanite blades and tools: Characteristics of edge damage.	258
Fig. 20.16.	Canaanite blades and sickle blades: Distribution according to width.	259
Fig. 20.17.	Canaanite blades and sickle blades: Distribution according to thickness.	259
Fig. 20.18.	Canaanite blades and tools: Thickness according to fragment type.	260
Fig. 20.19.	Canaanite blades and tools: Width according to fragment type.	260
Fig. 20.20.	Canaanite blades and sickle blades: Width and thickness distribution according to fragment.	261
Fig. 20.21.	‘En Esur knife, sickle blades and truncated blade from Areas C and D.	262
Fig. 20.22.	Tools from Area C.	263
Fig. 20.23.	A knife and Canaanite sickle blades from Area E North.	264
Fig. 20.24.	Tools from Areas E South and F.	265
Fig. 20.25.	Bifacial tools from Areas E North and C.	266
Fig. 20.26.	Tools on PE from Areas C and E North.	266
Fig. 20.27.	End scrapers from Area E North.	267
Fig. 20.28.	Side scrapers and end scraper from Area C.	268
Fig. 21.1.	Survival profile of cattle (excluding cattle burial).	272
Fig. 21.2.	Area E, Locus 5105. Cattle remains in original anatomic articulation.	274
Fig. 22.1.	<i>Microtus</i> molar.	282
Fig. 23.1.	Location plan of Tel Qashish.	286
Fig. 23.2.	Plan of Area E South.	286
Fig. 23.3.	Locus 5043 in Area E South.	287
Fig. 23.4.	Emmer wheat ( <i>Triticum dicoccum</i> ) grains.	287
Fig. 23.5.	Emmer wheat ( <i>T. dicoccum</i> ), spikelet fork.	287
Fig. 23.6.	Bristle-spiked canary grass ( <i>Phalaris paradoxa</i> ) grains.	288
Fig. 23.7.	<i>cf. Lolium persicum</i> grain.	288
Fig. 23.8.	Compositae achene.	289
Fig. 23.9.	Grapevine ( <i>Vitis vinifera</i> ) pip.	289
Fig. 23.10.	Lentil ( <i>Lens culinaris</i> ) seeds.	289
Fig. 23.11.	<i>Galium</i> sect. <i>Kolgyda</i> (probably <i>G. tricornerutum</i> ) mericarp.	289
Fig. 25.1.	Location map.	308
Fig. 25.2.	Area B, plan and sections.	309
Fig. 25.3.	Aerial view of Area B after completion of the excavation with repository cave.	310
Fig. 25.4.	Cross-section through the cave.	310



Fig. 25.5.	The repository cave toward the end of excavation.	311
Fig. 25.6.	The shallow bedrock pocket with additional pottery vessels.	311
Fig. 25.7.	Area B, Locus 226. Shallow bedrock pocket with additional ceramic vessels.	312
Fig. 25.8.	Area B, the repository cave during excavation.	312
Fig. 25.9.	The cave during excavation.	313
Fig. 25.10.	Bowls types BL Ia–c, IIa–b.	336
Fig. 25.11.	Bowls types BL IIIa–b from Locus 225.	338
Fig. 25.12.	Bowls types BL IIIb (cont.), IIIc.	340
Fig. 25.13.	Bowls type BL IV.	342
Fig. 25.14.	Bowls types BL V, VIa–b, VII.	344
Fig. 25.15.	Bowls type BL VIII (Locus 225).	346
Fig. 25.16.	Chalices types CH Ia–b.	348
Fig. 25.17.	Chalices types CH IIa–c, III.	350
Fig. 25.18.	Goblets types GO I–IV.	352
Fig. 25.19.	Goblets types GO V–VI.	354
Fig. 25.20.	Goblets type GO VI (cont.).	356
Fig. 25.21.	Goblets types GO VI (cont.), VII.	358
Fig. 25.22.	Human-head goblet, restored.	360
Fig. 25.23.	Human-head goblet fragment prior to restoration.	361
Fig. 25.24.	Drawing of the vessels at the bottom of the repository cave.	361
Fig. 25.25.	Kraters type K Ia (Locus 225).	362
Fig. 25.26.	Kraters types K Ib, II.	364
Fig. 25.27.	Cooking pots.	366
Fig. 25.28.	Storage jar type SJ I (Locus 225).	368
Fig. 25.29.	Jugs type J Ia (Locus 225).	369
Fig. 25.30.	Jugs types J Ib, II–III (Locus 225).	370
Fig. 25.31.	Juglets.	372
Fig. 25.32.	Flasks.	374
Fig. 25.33.	Cup and saucer (Locus 219).	374
Fig. 25.34.	Lamps type LP Ia (Locus 225).	375
Fig. 25.35.	Lamps type LP Ia (cont.), Ib (Locus 225).	376
Fig. 25.36.	Stand type ST I (Locus 225).	377
Fig. 25.37.	Stands type ST II (Locus 225).	378
Fig. 25.38.	Stand type St II (cont.) (Locus 225).	379
Fig. 25.39.	Stands type ST III (Locus 225).	380
Fig. 25.40.	Stand type ST IV and incense burner (Locus 225).	382
Fig. 25.41.	Mycenaean pottery: Piriform jar and flasks (Locus 225).	383
Fig. 25.42.	Mycenaean pottery: Stirrup jars (Locus 225).	384
Fig. 25.43.	Cypriot pottery.	386
Fig. 25.44.	Small faience bowl (Locus 225).	388
Fig. 25.45.	Section of the repository cave showing the height range of the types found in the cache.	389
Fig. 25.46.	Pie chart showing the numerical distribution of pottery types in the cave's repository.	389
Fig. 26.1.	Stand. Petrographic Group A.	398
Fig. 26.2.	Bowl. Petrographic Group A.	398
Fig. 26.3.	Goblet. Petrographic Group B.	398
Fig. 26.4.	Goblet. Petrographic Group C.	398
Fig. 26.5.	Goblet. Petrographic Group C.	399
Fig. 26.6.	Cooking pot. Petrographic Group D.	399
Fig. 26.7.	Cooking pot. Petrographic Group D.	399

Fig. 26.8.	Bowl. Petrographic Group E.	399
Fig. 28.1.	Diamond drills used to sample pottery.	408
Fig. 28.2.	Vessel B.2156 after sampling.	408
Fig. 28.3.	Vessel B.2156 before sampling.	408
Fig. 28.4.	REE pattern for three Tel Qashish pottery vessels classified on stylistic grounds as Mycenaean.	410
Fig. 28.5.	REE pattern for three local and imported pots from Area B.	410
Fig. 29.1.	Schematic map of northern Israel on which the location of the site is marked.	418
Fig. 29.2.	The items found in the cave.	418
Fig. 29.3.	Sampling during excavation.	418
Fig. 29.4	A–E. Chromatograms of the analyzed samples.	419

## List of Tables

Table 2.1.	Square ZY29, general description.	18
Table 2.2.	Probe trench section, Square L29, general description.	19
Table 2.3.	Square L29, luminescence OSL dating results.	20
Table 2.4.	Square D16, general description.	21
Table 2.5.	Probe trench section, TQ1, general description.	21
Table 2.6.	Probe trench section, TQ2, general description.	22
Table 2.7.	Probe trench section, TQ3, general description.	22
Table 3.1.	TQW: General Composition of the Flint Assemblage.	43
Table 3.2.	TQW: Composition of the Tools Assemblage.	43
Table 3.3.	TQW: Levallois Cores and Products according to Blank and Mode of Preparation.	44
Table 3.4.	TQW: Metric Characteristic of Levallois Cores according to Blank Removed.	44
Table 3.5.	TQW: Metric Characteristics of Levallois Products according to Blank kind.	45
Table 3.6.	TQW: Striking Platform of Levallois Products.	45
Table 3.7.	TQW: Metric Characteristics of Levallois Cores according to Mode of Preparation.	46
Table 3.8.	TQW: Metric Characteristics of Levallois Products according to Mode of Preparation.	47
Table 3.9.	TQS: General Composition of the Flint Assemblage.	48
Table 3.10.	TQS: Typological Composition of the Tools Assemblage.	48
Table 3.11.	TQS: Levallois Cores and Products according to Blank and Mode of Preparation.	49
Table 3.12.	TQS: Striking Platform of Levallois Products.	49
Table 3.13.	TQS: Metric Characteristics of Levallois Cores according to Mode of Preparation.	50
Table 3.14.	TQS: Metric Characteristics of Levallois Products according to mode of Preparation.	51
Table 5.1.	Tell el-Wa'er: Pottery diagnostics account per type.	77
Table 6.1.	Tell el-Wa'er. Groundstone objects, by locus (bowls excluded).	82
Table 6.2.	Tell el-Wa'er. Basalt bowl fragments.	83
Table 15.1.	Area E South. Secure loci list.	162
Table 15.2.	Area F. Secure loci list.	162
Table 17.1.	Inventory of analyzed vessels and results of the petrographic analysis.	218
Table 19.1.	Distribution of raw materials by area.	231
Table 19.2.	Areas A and B: Distribution of stone objects by type.	231
Table 19.3.	Areas C, D, and F: Distribution of stone objects by type.	232
Table 19.4.	Area E (North and South): Distribution of stone objects by type and stratum.	232
Table 19.5.	General distribution of types by area.	233

Table 20.1.	General composition of the assemblage.	249
Table 20.2.	Distribution of core types.	250
Table 20.3.	Typological composition of the assemblage.	251
Table 20.4.	Metric characteristics of Canaanite blades and tools.	252
Table 21.1.	Faunal remains per locus.	270
Table 21.2.	Faunal remains by taxa and stratigraphic context.	271
Table 21.3.	Ageing of cattle based on bone fusion, excluding the cattle burial.	272
Table 21.4.	Distribution of skeletal remains.	273
Table 21.5.	Measurements of faunal remains. Following von den Driesch 1976.	278
Table 22.1.	List of samples of microvertebrate remains from Tel Qashish, Area E South, including description of the skeletal remains.	284
Table 23.1.	Plant species in EB IB Tel Qashish, Area E South.	296
Table 24.1.	Presence (+)/absence (-) dichotomy of bow-rim and neckless rim jars/pithoi from selected late EB I sites in western Galilee, the northern Jordan Valley, and the north Coastal Plain, listed from north to south.	299
Table 24.2.	Radiocarbon dates of Tel Qashish seeds from Area E (South).	301
Table 25.1.	List of restored pottery vessels.	390
Table 26.1.	Inventory of analyzed vessels.	397
Table 28.1.	Pottery from Area B analyzed by INAA.	414
Table 28.2.	Rare earth composition of pottery from Area B and references.	415
Table 28.3.	Concentration of barium and calcium in percent.	416
Table 29.1.	List of on-site samples, during the excavation.	421
Table 29.2.	List of the compounds identified in the lipid extracts of five chalices from Qashish.	422

Supplementary Table 19.6 available online at <https://doi.org/10.5913/2022655.t19>.

## Preface

This volume is the first to appear in the *Jezreel Valley Regional Project Studies* series, which was conceived to be a venue for the publication of the extensive new primary and synthetic data generated by teams under the collaborative framework of the Jezreel Valley Regional Project (JVRP), including archaeological reports, environmental studies, and historical analyses. The (JVRP) is a long-term, multi-disciplinary survey and excavation project investigating the history of human activity in the Jezreel Valley from the Paleolithic through the Ottoman period. The project strives for a total history of the region using the tools and theoretical approaches of such disciplines as archaeology, anthropology, geography, history, ethnography, and the natural sciences, within an organizational framework provided by landscape archaeology. The project is also a framework for collaboration, facilitating interaction, collegiality, publication, and resources-sharing among its independent member projects, which currently include the *Castra Legionis VI Ferrata* Excavations, The Tel Aviv University Megiddo Expedition, The Tel Shimron Excavations, and The Tell Abu Shusha Excavations, as well as other initiatives currently in development.

The current volume brings to publication together several final reports of salvage excavations carried out by the Israel Antiquities Authority (IAA) in the vicinity of Tel Qashish between the years 2010 and 2013. These excavations, carried out in advance of major national development projects, provide a rare

window into the archaeological remains within the landscape between tells which usually receive such little attention from research excavations. These remains between tells have much to contribute to the overall story of the region, contributing data either non-existent or inaccessible on multi-period settlement sites. They are also the remains that are at the most risk of destruction by modern development. As the national body responsible for the antiquities of Israel, the IAA carries out hundreds of excavations across the country every year, a majority of them in the landscape between tells and is therefore the most important producer of knowledge concerning these understudied components of the archaeological landscape. The salvage excavations presented herein reveal new data on the Paleolithic period, Early Bronze Age, and Late Bronze Ages in the Jezreel Valley and contribute greatly to our knowledge thereof.

Additional volumes in the JVRP Studies series currently in preparation include *Tel Megiddo East 1: The 2010-2013 Seasons*; *Castra Legionis VI Ferrata 1: The Principia and Related Studies*; *Stability and Change in the Jezreel Valley from 1200 to 900 BCE*; and *Current work in the Jezreel Valley 2022*.

Matthew J. Adams  
Margaret E. Cohen

Series Editors,  
*Jezreel Valley Regional Project Studies*



## Acknowledgments

We wish to thank collectively the various members of the excavation teams for their hard work during the years of excavation and the preparation of this publication. We recognize that salvage excavations can be both rewarding and thankless, and we wish to extend our warm gratitude to all of those who participated in the projects presented herein. Each are thanked individually in the chapters relevant to their work.

Special thanks are also due to Dr. Viviana Moscovich who worked tirelessly over many months

to bring order and harmony to the varied reports assembled here. Her invaluable assistance is greatly appreciated.

Finally, this publication would not have been possible without the support of the Israel Antiquities Authority's technical staffers and without the courteous consent of its Publication Committee, the latter presently headed by Dr. Zvi Greenhut.

The Editors





## Abbreviations

ÄAT	Ägypten und Altes Testament
ABS	Archaeology and Biblical Studies
ADPV	Abhandlungen des Deutschen Palästinaverains
<i>AnSt</i>	<i>Anatolian Studies</i>
ASL	above sea level
BARIS	British Archaeological Reports International Series
<i>BASOR</i>	<i>Bulletin of the American Schools of Oriental Research</i>
BASORSup	Bulletin of the American Schools of Oriental Research Supplement Series
<i>BBSAJ</i>	<i>Bulletin of the British School of Archaeology in Jerusalem</i>
<i>BSA</i>	<i>Bulletin on Sumerian Agriculture</i>
CHANE	Culture and History of the Ancient Near East
CTE	core trimming elements
<i>ErIsr</i>	<i>Eretz Israel</i>
GBW	gray burnished ware
<i>HA-ESI</i>	<i>Hadashot Arkheologiyot-Excavations and Surveys in Israel</i>
HUJ	Hebrew University of Jerusalem
IAA	Israel Antiquities Authority
<i>IEJ</i>	<i>Israel Exploration Journal</i>
ill(s).	illustration(s)
INAA	instrumental neutron activation analysis
<i>JArS</i>	<i>Journal of Archaeological Science</i>
<i>JPOS</i>	<i>Journal of the Palestine Oriental Society</i>
JVRP	Jezreel Valley Regional Project
LBNL	Laurence Berkeley National Laboratory
MNI	minimum number of individuals
MP	Middle Paleolithic
MURR	University of Missouri Research Reactor
<i>NEA</i>	<i>Near Eastern Archaeology</i>
NBK	naturally backed knives
NISP	number of identified specimens
OBO	Orbis Biblicus et Orientalis
OIP	Oriental Institute Publications
<i>OJA</i>	<i>Oxford Journal of Archaeology</i>
OSL	optically stimulated luminescence
PE	primary elements
<i>PEQ</i>	<i>Palestine Exploration Quarterly</i>
pers. comm.	personal communication
PPN	Pre-Pottery Neolithic
REE	rare earth elements
SAOC	Studies in Ancient Oriental Civilization

SMNIA	Sonia and Marco Nadler Institute of Archaeology Monograph Series
TA	<i>Tel Aviv</i>
TDA	total diagnostic assemblage
TQS	Tel Qashish South
TQW	Tel Qashish West
UP	Upper Paleolithic
ZDPV	<i>Zeitschrift des Deutschen Palästina-Vereins</i>

## Chapter 9

### Salvage Excavations at Tell El-Wa'ér: Discussion and Conclusions

Orit Segal and Edwin C. M. van den Brink (*Israel Antiquities Authority*)

The very distinct, curvilinear architecture that characterizes the structural remains uncovered at Tell el-Wa'ér, and the associated pottery, ground stone assemblages, and copper axe heads, strongly resemble those discovered in Yiftahèl Stratum II (Braun 1997), an example par excellence and a key site for the early northern EB I in this region. Based on the Tell el-Wa'ér findings, the two settlements may be considered contemporary.

Lacking absolute dates for both sites, we have to content ourselves with the notion that, in the (near) absence of rectilinear architecture, the deposits at Tell el-Wa'ér postdate the latest phase of the Late Chalcolithic (i.e., LC 2) and predate the later phases

of the EB I when the curvilinear building tradition was abandoned and rectilinear architecture reintroduced.

Given the shallow depths of the early EB I deposit at Tell el-Wa'ér, and notwithstanding some architectural subphasing evident at the site, we may surmise that this settlement was short-lived, abandoned, and never resettled. The earliest vestiges of human habitation in subsequent, later phases of the EB I are to be found in and around Tel Qashish, just opposite Tell el-Wa'ér, on the other (east) side of the Kishon River (chs. 11–24, this volume; Ben-Tor, Bonfil, and Zuckerman 2003, 10–57).

#### References

- Ben-Tor, Amnon., Ruhama Bonfil, and Sharon Zuckerman  
2003 *Tel Qashish: A Village in the Jezreel Valley; Final report of the Archaeological Excavations (1978–1987)*. Qedem Reports 5. Jerusalem: Hebrew University of Jerusalem.
- Braun, Eliot  
1997 *Yiftahèl: Salvage and Rescue Excavations at a Prehistoric Village in Lower Galilee, Israel*. IAA Reports 2. Jerusalem: Israel Antiquities Authority.