

PESH DAR PLAIN PROJECT PUBLICATIONS
VOLUME 4

Peshdar Plain Project Publications

edited by

Karen Radner

The Dinka Settlement Complex 2018 Continuing the excavations at Qalat-i Dinka and the Lower Town

edited by

Karen Radner, F. Janoscha Kreppner and Andrea Squitieri



PEWE-VERLAG
2019

Gedruckt mit Unterstützung der Alexander von Humboldt-Stiftung

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.dnb.de> abrufbar.

© PeWe-Verlag – Gladbeck 2019

Alle Rechte, insbesondere das Recht der Vervielfältigung und Verbreitung sowie der Übersetzung, vorbehalten. Kein Teil des Werkes darf in irgendeiner Form durch Fotokopie, Mikrofilm usw. ohne schriftliche Genehmigung des Verlages reproduziert oder unter Verwendung elektronischer Systeme verarbeitet, vervielfältigt oder verbreitet werden.

Layout und Prepress: PeWe-Verlag, Gladbeck

Umschlaggestaltung: PeWe-Verlag, Gladbeck

Umschlagabbildung: Trench QID1 on Qalat-i Dinka at the end of excavations (3 May 2018). Photo by Andrea Squitieri, taken with a DJI Phantom 4 Pro drone.

Gedruckt auf alterungsbeständigem Papier

Printed in Germany

ISBN: 978-3-935012-39-3

Table of contents

Preface	11
A. The Peshdar Plain Project in its fourth year: the 2018 work programme (<i>Karen Radner</i>)	13
A1. The 2018 activities of the Peshdar Plain Project	14
A1.1 The second excavation campaign on Qalat-i Dinka in spring 2108	16
A1.2 A further excavation campaign in the Lower Town of the Dinka Settlement Complex in autumn 2018	18
A2. The scope of this volume	19
B. 2018 environmental studies in the Bora Plain	21
B1. A first geological survey of the Bora Plain (<i>Cajetan Geiger</i>)	21
B1.1 The tectonic setting	21
B1.2 A preliminary assessment of the geology of the Bora Plain ..	22
B2. Geoarchaeological work at the Dinka Settlement Complex, 2018 (<i>Mark Altaweel & Eileen Eckmeier</i>)	25
B2.1 A wadi cutting through the Dinka Settlement Complex (<i>with contributions by Cajetan Geiger</i>)	26
B2.2 Investigating the Lower Terrace	27
B2.3 Spatial heterogeneity as indicated by the results of topsoil analysis	30
B2.4 General summary	31
C. The 2018 magnetometer survey of the Dinka Settlement Complex (<i>Marion Scheiblecker & Jörg Fassbinder</i>)	32
C.1. The Lower Town	32
C.2. The western slope of Qalat-i Dinka	32
D. Excavating the Upper Town: the 2018 excavation season at Qalat-i Dinka	38
D1. The excavation, its grid and the registration system (<i>Andrea Squitieri</i>)	38
D2. Absolute chronology and relative stratigraphy	41
D2.1 The first ¹⁴ C dates (<i>Karen Radner & Andrea Squitieri</i>)	41
D2.2 Relative stratigraphy and the stratigraphic table (<i>F. Janoscha Kreppner</i>)	43
D3. The excavations in QID1	44
D3.1 Building P (<i>Jean-Jacques Herr</i>)	44
D3.1.1 Room 58	49
D3.1.1.1 The walls and the monumental doorway	49
D3.1.1.2 The pilasters	52
D3.1.1.3 The floor	52

D3.1.1.4 The fill	53
D3.1.2 Room 59	53
D3.1.3 Room 60	55
D3.2 The burials (<i>Kathleen Downey</i>)	55
D3.2.1 Grave 98: part of a late first millennium BC cemetery	55
D3.2.2 Grave 99: an Iron Age burial	56
D3.2.3 Update to the 2016 excavations: skeletons from Room 58	58
D3.3 The looting pits and the topsoil (<i>Jean-Jacques Herr</i>)	58
D4. The excavations in QID2 (<i>Zahra Hashemi</i>)	59
D5. The excavations in QiD3 (<i>Felix Wolter</i>)	63
D6. Preliminary conclusions (<i>Karen Radner</i>)	67
E. Continuing the excavation of the Lower Town: the Dinka	
Lower Town Operation 3 (DLT3)	68
E1. Selecting the excavation area DLT3 (<i>Karen Radner</i>)	68
E2. The grid, the registration system and the new 3D documentation (<i>Andrea Squitieri & Jens Rohde</i>)	68
E3. The relative chronology and the stratigraphic table (<i>F. Janoscha Kreppner</i>)	70
E4. The Late Chalcolithic occupation of DLT3	74
E4.1 The Late Chalcolithic floor under Building R (<i>Jens Rohde</i>) ...	74
E4.2 The Late Chalcolithic kiln (<i>Alessio Palmisano</i>)	75
E5. The Iron Age Main Occupation Period of DLT3	80
E5.1 Outdoor Area 69 (<i>Jens Rohde</i>)	80
E5.2 Building R and Room 64 (<i>Jens Rohde</i>)	80
E5.3 Outdoor Area 63 (<i>Jens Rohde</i>)	83
E5.4 Passage 68 (<i>Jens Rohde & Alessio Palmisano</i>)	84
E5.5 Outdoor Area 65 (<i>Alessio Palmisano & Jens Rohde</i>)	85
E5.6 Building S and Room 66 (<i>Alessio Palmisano</i>)	85
E5.7 Outdoor Area 67 (<i>Alessio Palmisano</i>)	88
E5.8 Building Q and Room 62 (<i>Jens Rohde & Alessio Palmisano</i>) ..	90
E6. The Sporadic Occupation Phase of DLT3	91
E.6.1 Buildings structures of the Sporadic Occupation Phase (<i>Andrea Squitieri</i>)	91
E.6.2 Human remains of the Sporadic Occupation Phase: Grave 100 (<i>Kathleen Downey</i>)	91
E7. Recent interventions at DLT3: GA42 and the topsoil (<i>Andrea Squitieri</i>)	93
E8. Preliminary conclusions (<i>F. Janoscha Kreppner</i>)	93
F. Grave 71 in the well of Building I at Gird-i Bazar	
(<i>Jens Rohde & Kathleen Downey</i>)	95
F1. The stratigraphy and general features of the well (<i>Jens Rohde</i>)	96
F1.1 The structure of the well	96
F1.2 The fills inside the well	97
F2. The human remains of Grave 71 (<i>Kathleen Downey</i>)	97

G. 2018 Pottery studies	99
G1. The 2018 pottery from the Dinka Settlement Complex (<i>Jean-Jacques Herr, Abdullah Bakr Othman & Hero Salih Ahmed</i>)	99
G1.1 Methodology	99
G1.2 Iron Age pottery periodisation issues	100
G1.3 The 2018 Iron Age pottery from Qalat-i Dinka (DSC Main Occupation Period)	101
G1.3.1 Pottery from QID1	101
G1.3.1.1 Pottery from Building P	101
G1.3.1.2 Pottery associated with Grave 99	103
G1.3.1.3 Glazed pottery	103
G1.3.1.4 A jar with figurative decoration	107
G1.3.2 Pottery from QID2	109
G1.3.2.1 Pottery from the oldest deposit	109
G1.3.2.2 Pottery from the top of the glacis	109
G1.3.2.3 Pottery from the latest surface of the glacis	109
G1.3.3 Pottery from QID3	110
G1.3.4 Conclusions	110
G1.4 Pottery from other periods recovered from Qalat-i Dinka	110
G1.4.1 A possible late third millennium BC pottery sherd	110
G1.4.2 Middle Islamic pottery	111
G1.5 The 2018 pottery from DLT ₃ : a first assessment	112
G1.5.1 The 2018 Iron Age pottery of DLT ₃ (DSC Main Occupation Period)	112
G1.5.1.1 Pottery from Outdoor Area 69	112
G1.5.1.2 Pottery from Building R / Room 64	113
G1.5.1.3 Pottery from Outdoor Area 63	113
G1.5.1.4 Pottery from Outdoor Area 68	113
G1.5.1.5 Pottery from Building S / Room 66	113
G1.5.1.6 Pottery from Outdoor Area 67	113
G1.5.1.7 Pottery found in the post-occupation fill	114
G1.5.1.8 Conclusions	114
G1.5.2 Pottery from other periods recovered in DLT ₃	114
G1.5.2.1 A possible Halaf pottery sherd	114
G1.5.2.2 Pottery from the Late Chalcolithic period (LC 1-2)	114
G1.5.2.3 Sasanian-period pottery	119
G1.6 Sasanian-period pottery from the geological trench GA44 ...	119
G1.7 Excursus: Iron Age pottery with animal-head appliqués	119
G1.8 Overview of the ceramics distribution across the periods	121
G2. Petrographic analyses of selected 2018 pottery from Qalat-i Dinka (<i>Silvia Amicone</i>)	124
G3. Egyptian faience and Naples Yellow: results of the archaeometric analysis of a sintered quartz ceramic sample from Qalat-i Dinka (<i>Christoph Berthold, Jörg Fischer & Silvia Amicone</i>)	125
H. The 2018 small finds from Qalat-i Dinka and DLT₃ (<i>Andrea Squitieri</i>)	126
H1. The 2018 small finds from Qalat-i Dinka	126
H1.1 Small finds from QID1: Building P Room 58	126
H1.1.1 Ivory objects	126

H1.1.2	Bronze objects	128
H1.1.3	Iron objects	129
H1.1.4	Stone objects	130
H1.1.5	Egyptian Blue objects	131
H1.2	Small finds from QID2 and QID3	131
H1.3	Final remarks on the 2018 small finds from Qalat-i Dinka	132
H2.	The 2018 small finds from DLT3	133
H2.1	Small finds from the Late Chalcolithic levels	133
H2.2	Small finds from the Iron Age levels (Main Occupation Periods 1 and 2)	134
H2.2.1	Objects from floors	134
H2.2.2	Objects from fills	134
H2.3	Small finds from the Sporadic Occupation Period	136
H2.4	Small finds from the Modern Occupation Period levels and the topsoil	136
H2.5	Final remarks on the 2018 small finds from DLT3	136
I.	A fragmentary brick with a Neo-Assyrian cuneiform inscription from DLT3 (Karen Radner)	137
J.	Analytical results from the zooarchaeological remains at Gird-i Bazar, 2015-16 (Tina Greenfield)	140
J1.	Recovery and collection	140
J2.	General taphonomic patterns (site-wide)	140
J2.1	Fragmentation	140
J2.2	Weathering	141
J2.3	Gnawing	141
J3.	Cultural modifications	141
J3.1	Burning	141
J3.2	Butchering	141
J3.3	Tools and polished elements	141
J4.	Zooarchaeological methods	141
J4.1	Sample size	141
J4.2	Quantitative analyses	142
J5.	Taxonomic and species diversity	142
J6.	Species preference and consumption patterns (site-wide)	143
J6.1	Body portions (site-wide)	143
J6.2	Age demographics	144
J7.	Architectural contexts	144
J7.1	Buildings	145
J7.2	Rooms within buildings	145
J8.	Species preference and consumption patterns within architectural contexts	145
J8.1	Taxonomic diversity	145
J8.2	Body portion preferences	147
J8.2.1	Building A	148
J8.2.2	Building B	148
J8.2.3	Outdoor Area 8	148
J8.2.4	Alley 13	148

J8.2.5	Courtyard 21	148
J8.2.6	Building F	149
J8.2.7	Building H	149
J8.2.8	Grave 26 (Sasanian period)	149
J9.	Preliminary conclusions	149
K. An archaeomagnetic study on a kiln from Gird-i Bazar		
	<i>(Patrick Arneitz & Roman Leonhardt)</i>	150
K1.	Introduction	150
K2.	Sampling and preparation	150
K3.	Magnetic measurements	150
K4.	Mineral magnetism	150
K5.	Field directions	152
K6.	Field intensity	152
K7.	Archaeomagnetic dating	152
K8.	Conclusions	153
L. Conclusions and perspectives		
	<i>(Karen Radner & F. Janoscha Kreppner)</i>	156
Bibliography		160

Preface

Karen Radner, F. Janoscha Kreppner & Andrea Squitieri

To Stephan Kroll, in gratitude

Just in time for the beginning of the 2019 autumn campaign at the Dinka Settlement Complex, this volume presents the results of the 2018 activities of the Peshdar Plain Project (PPP).

The publication of this fourth volume of the series Peshdar Plain Project Publications (4P4) was yet again made possible by the wonderful support granted by the authorities of the Autonomous Kurdistan Region of Iraq: the General Directorate of Antiquities, the Sulaymaniyah Directorate of Antiquities and the Raparin Directorate of Antiquities and their individual members, named in Chapter A; the sponsorship of the institutions who provided generous funding: the Alexander von Humboldt Foundation, Ludwig-Maximilians-Universität München (LMU Munich) and the Gerda Henkel Foundation; and the great dedication and the enormous and enormously varied expertise of our international and interdisciplinary team of specialists, named with their respective areas of responsibility during fieldwork in 2018 in Chapter A of this book.

In 2018, we welcomed Cajetan Geiger (Ruhr-Universität Bochum) to the field team who presents the first results of his assessment of the geology of the Bora Plain in Chapter B1. The 2018 autumn campaign was a landmark in the Peshdar Plain Project's history as Sophie Pietsch (Freie Universität Berlin) was the first undergraduate student to ever join us in the field, and with great success. Further undergraduates from Janoscha Kreppner's new academic home at the Westfälische Wilhelms-Universität Münster will join the team in the upcoming 2019 autumn campaign in order to practice and further their archaeological skill sets in the field after studying the Dinka Settlement Complex in class.

We are very pleased to present reports on the petrographic and archaeometric analyses conducted by Silvia Amicone, Christoph Berthold and Jörg Fischer at the Competence Center Archaeometry Baden-Wuerttemberg (CCA-BW) of Eberhard-Karls-Universität Tübingen, our cooperation partner since 2017. We are equally pleased to

present the results of Patrick Arneitz and Roman Leonhardt (Zentralanstalt für Meteorologie und Geodynamik, Vienna) from their analysis of an archaeomagnetic sample taken from a kiln at Gird-i Bazar in 2015; our collaboration continues.

Beyond the many many individuals mentioned in Chapter A, we are indebted to many colleagues and friends working in the Kurdish Autonomous Region of Iraq for sharing information and expertise, foremost among them our cooperation partner Jessica Giraud, head of the Mission archéologique française du Gouvernement de Souleimaniah (MAFGS). In Baghdad, we thank Qais Hussein Rasheed who, as its director, graciously issued the formal permit of the State Board of Antiquities and Heritage of Iraq for the work of the Peshdar Plain Project on 10 October 2018. At LMU Munich, we are very grateful to Denise Bolton who found time to language-edit Chapters B to F despite many other commitments and to Nikola Wenner who assisted Andrea Squitieri in the preparation of some of the figures. In Gladbeck, our thanks go to our publisher Peter Werner for his care and attention in producing this handsome volume.

As with the first three volumes of the series Peshdar Plain Project Publications (4P1 = *Exploring the Neo-Assyrian Frontier with Western Iran: The 2015 Season at Gird-i Bazar and Qalat-i Dinka*, edited by Karen Radner, F. Janoscha Kreppner and Andrea Squitieri, Gladbeck 2016; Open Access download: <https://epub.ub.uni-muenchen.de/29236/>; 4P2 = *Unearthing the Dinka Settlement Complex: the 2016 Seasons at Gird-i Bazar and Qalat-i Dinka*, edited by Karen Radner, F. Janoscha Kreppner and Andrea Squitieri, Gladbeck 2017; Open Access download: <https://epub.ub.uni-muenchen.de/40252/>; and 4P3 = *The Dinka Settlement Complex 2017: The Final Season at Gird-i Bazar and First Work in the Lower Town*, edited by Karen Radner, F. Janoscha Kreppner and Andrea Squitieri, Gladbeck 2018; Open Access download: <https://epub.ub.uni-muenchen.de/57255/>), this book is meant to share the results of our

fieldwork in a detailed and timely manner. It is deliberately a “work in progress” that represents the current state of our knowledge and interpretation of the Dinka Settlement Complex, and future work and analyses are likely to change some of our views. Yet again, we have succeeded in completing the stratigraphic analysis for all areas excavated in 2018 and are able to present every single stratigraphic unit of the 2018 excavations at Qalat-i Dinka and in the new excavation area in the Lower Town of the Dinka Settlement Complex, dubbed DLT₃.

We dedicate this volume in gratitude and admiration to Prof. Dr. Stephan Kroll (LMU Munich) who supported the Peshdar Plain Project from its earliest days and freely shared his enormous knowledge on Iron Age ceramics and western Iran with us, drawing on his many years of fieldwork experience in the highland regions of the Middle East. Thank you, Stephan, for your curiosity, your generosity and all those sherds!

Munich, Münster and Penjwin, July 2019