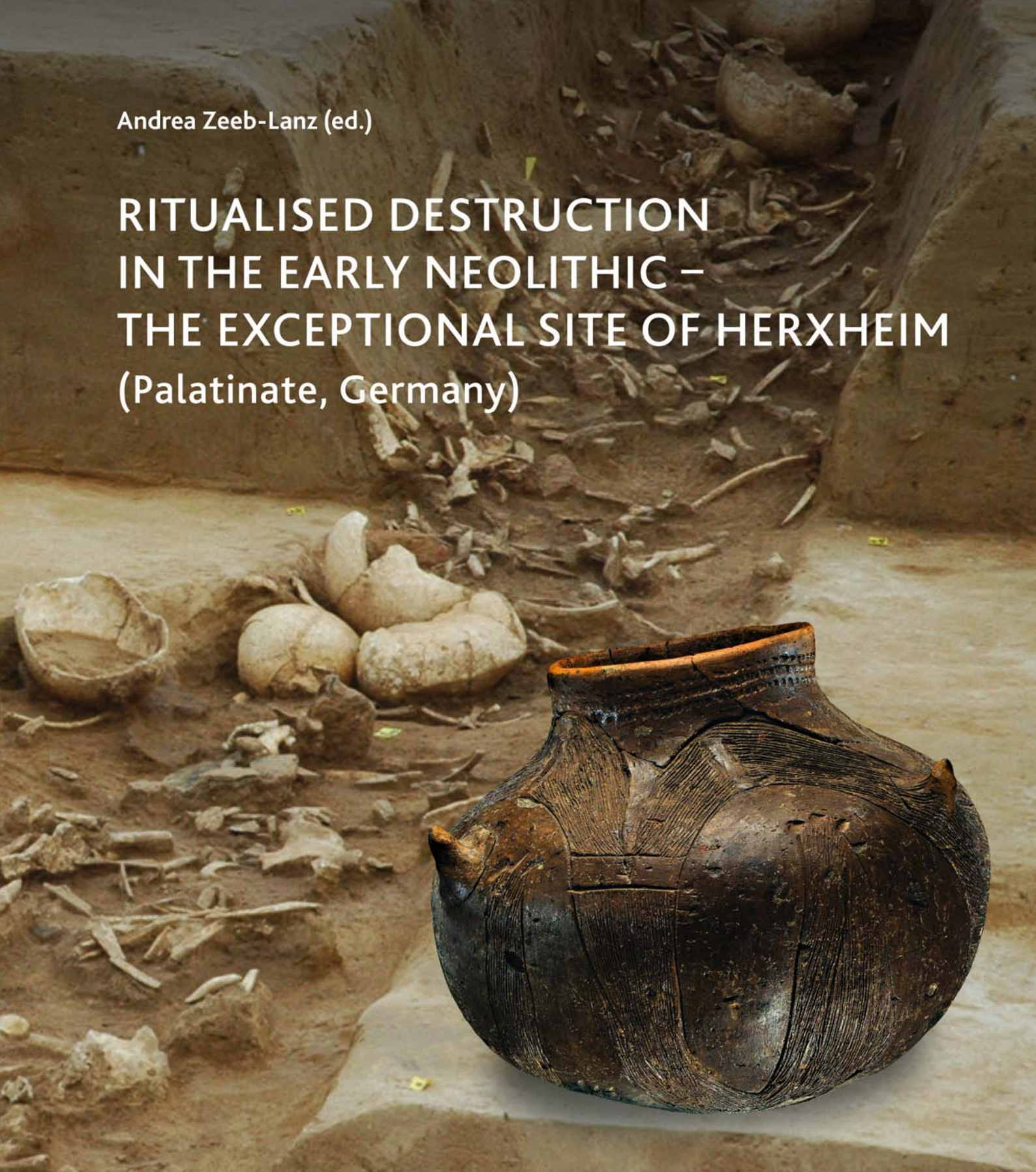


Andrea Zeeb-Lanz (ed.)

# RITUALISED DESTRUCTION IN THE EARLY NEOLITHIC – THE EXCEPTIONAL SITE OF HERXHEIM (Palatinate, Germany)



RheinlandPfalz

GENERALDIREKTION  
KULTURELLES ERBE

FORSCHUNGEN ZUR  
PFÄLZISCHEN ARCHÄOLOGIE 8.1

FORSCHUNGEN ZUR PFÄLZISCHEN ARCHÄOLOGIE

FORSCHUNGEN ZUR PFÄLZISCHEN ARCHÄOLOGIE

VOLUME 8.1

GENERALDIREKTION KULTURELLES ERBE  
DIREKTION LANDESARCHÄOLOGIE  
AUSSENSTELLE SPEYER  
SPEYER 2016

ANDREA ZEEB-LANZ (ED.)

Ritualised Destruction in the Early Neolithic  
– The Exceptional Site of Herxheim  
(Palatinate, Germany)

GENERALDIREKTION KULTURELLES ERBE  
DIREKTION LANDESARCHÄOLOGIE  
AUSSENSTELLE SPEYER  
SPEYER 2016

Edited by  
Andrea Zeeb-Lanz

Die Deutsche Bibliothek – CIP-Einheitsaufnahme

A title set for this publication is available at the Deutsche Bibliothek.

Editing: Andrea Zeeb-Lanz  
Layout: Ulrike Lorenz-Link, Publikations- und Grafikdienstleistungen, Stauffenbergstr. 51, 73730 Esslingen  
Translations: Daniela Hofmann  
Production: NINODRUCK GmbH, Im Altenschemel 21, 67435 Neustadt/Weinstraße  
© GDKE, Direktion Landesarchäologie, Außenstelle Speyer  
This work including all its parts is protected by copyright.  
Printed in Germany  
ISSN 1862-5983 – ISBN 978-3-936113-09-9

*in memoriam*

Annemarie Häußer and Ludger Schulte

# PREAMBLE

In 1995, the municipality of Herxheim near Landau developed a new industrial estate at the western edge of the town. The archaeological excavations carried out in advance of construction in 1996 led to the discovery of the large Bandkeramik enclosure with its exceptional finds and features: a mass of finds had been deposited in the ditches, comprising ritually destroyed pottery and stone tools, animal bones and countless human bone fragments, partial skeletons and shaped skulls.

Thanks to considerable financial support by the municipality of Herxheim and additional funding by the federal state of Rhineland-Palatinate, excavations at this unique site could continue until 1999. The work was directed by Annemarie Häußler, ably assisted by the excavation technician Michael Münzer. Alongside the excavation, Häußler also enthusiastically promoted the presentation of the results to the public and was engaged in the design of a museum display in Herxheim. With her tragic death in 2002, the continuation of the archaeological work and the analysis of the site were suddenly at risk.

However, in 2004 the “Herxheim Project” came into being, made possible by funding for the analysis of the excavations. This funding was provided by the German Research Foundation (DFG) who supported the project until 2011. It was led by Dr. Andrea Zeeb-Lanz of the Speyer branch office of the state archaeology service who together with the Cologne-based Prof. Dr. Andreas Zimmermann filed the application for the DFG-support. Both carried on the Herxheim cause with great vigour. The new excavations at the site, generously supported by the community of Herxheim, were directed by Dr. Fabian Haack and Michael Münzer.

Concurrently, this exceptional site was analysed by an international and interdisciplinary research team, whose results are now being presented in several volumes.

This volume, the first Herxheim publication, includes three extensive contributions which comprehensively present the site’s features. The first chapter, by Dr. Andrea Zeeb-Lanz and Dr. Fabian Haack, provides a systematic overview of the research history and current state of investigation of Herxheim. Dr. Fabian Haack then describes the complex history of the ditch segments with their differentiated fill mechanisms. Finally, Dr. Andrea Zeeb-Lanz discusses selected finds concentrations from the ditches. This comprehensive analysis of what are rather complex and intricate features enables readers to assess the proposed interpretations and provides a sound basis for future investigations of central European Neolithic enclosures and ritual sites more generally.

Alongside the many routine tasks of heritage management, the presentation of the results of scientific research is of particular importance for the state archaeology service of the Rhineland-Palatinate, as it ensures that these significant scientific investigations become available to the public and to international scholarship.

We would therefore like to thank all the authors, and in particular the project leader based in Speyer, Dr. Andrea Zeeb-Lanz, who has coordinated and supervised the excavations and the many analyses and investigations with great dedication. We would also like to thank Michael Münzer for carrying out the often difficult excavations. Finally, thanks are due to the head of the Speyer branch office, Dr. Ulrich Himmelmann, who has made the printing of this impressive volume possible, and to his team for the work they supplied.

*Thomas Metz*  
Generaldirektor  
Generaldirektion Kulturelles Erbe

*Dr. Dr. Axel von Berg*  
Landesarchäologe Rheinland-Pfalz  
Generaldirektion Kulturelles Erbe

## EDITOR'S NOTE

Twenty years ago, when the machine began to remove the topsoil from the area of the future furniture store Weber in the new industrial estate "West" in Herxheim, no-one would have guessed how exceptional the early Neolithic finds would be which had lain there undisturbed for 7000 years. As is so often the case in archaeology, only stray finds were known from the area, and in this case they had – amongst others – indicated the presence of a Linearbandkeramik settlement. In 1996, when the first human remains appeared in the ditches, nobody could have predicted that an investigation which began as a rescue dig in advance of construction would develop into a long-running and wide-ranging project, effectively funded by the *Deutsche Forschungsgemeinschaft* (DFG).

It is all the more gratifying that we can now present the first of – for now – two planned monographs on the exceptional site of Herxheim, the fruit of the extensive investigations carried out in the course of the DFG-project. Only the results of the anthropological study of the human remains uncovered during the research excavation have been published elsewhere ahead of schedule.

We may be certain that further publications on Herxheim will not definitively solve the riddles provided by this complex site, so far unique in central European prehistory; many questions will remain open, and we will probably never be able to explain or understand the motivations of past agents.

A site as exceptional as this one will always inspire many different interpretations, a fact reflected in the title of the chapter on research history. In it, we describe the broad spectrum of sometimes diametrically opposed readings of both the architecturally elaborate enclosure and its exceptional contents.

The intensive study of the records of the rescue excavation carried out in the 1990s, as well as the detailed analysis of the results of the research excavation he directed from 2005 to 2008, have led Fabian Haack to conclude that the Herxheim enclosure consists of two ditches with a complex history of construction and processes of refilling which are just as multi-faceted. In the main section of the present volume, he uses the large amount of data and the countless on-site observations to provide an authoritative analysis of the excavated features at Herxheim. In so doing, he comprehensively dismantles the interpretation – long supported by the project team – of Herxheim as a centuries-long construction project of individual elongated pits, excavated and immediately refilled at long intervals. He also discusses the concentrations of human bone, pottery and other artefacts, providing detailed descriptions of their position within the ditches, as well as their composition and their relationships to other concentrations (pottery and bone refits).

The third section of the present volume is dedicated to a better understanding of the finds concentrations in terms of the varying amounts of human remains, pottery, stone tools, animal bone and other artefacts they contain. With the support of the respective finds specialists, I have compiled the material from six selected concentrations to search for patterning in the composition of individual concentrations and to identify any possible selection criteria. However, statistical comparisons do not support the idea of purposeful selection; rather, the concentrations seem to consist of haphazard remains of ritual activities carried out near the enclosure ditches. Only some aspects – e.g. the "nestlike" arrangements of some of the skull caps – indicate a certain level of intentional selection of the ritual waste compositions.

This volume about the ritual site of Herxheim and its astonishing finds offers the first part of the works completed in the frame of the DFG-funded project about one of the most intriguing archaeological discoveries of the last decades in Europe. Volume 1 concentrates largely on the enclosure and its history, one of the main topics in Herxheim besides the extraordinary finds concentrations in the ditches of the enclosure. In volume 2 we will present the other finds material groups as well as the results of a broad range of archaeometric analyses, leading to a final overall interpretation of the site.



# ACKNOWLEDGEMENTS

Any research project as long-lasting, diverse and wide-ranging in its research focus as Herxheim is only possible with a great number of allies, supporters and interested colleagues always willing to engage in discussion. In addition, it was particularly important for us to be constantly motivated by many people interested in the topic, both specialists and non-professionals.

Equally, a large-scale undertaking such as Herxheim cannot be carried out without a solid financial basis. Therefore, we would first of all like to express our gratitude to the Deutsche Forschungsgemeinschaft (DFG), who generously supported our research for a total of eight years. In particular, I would like to thank Dr. Hans-Ulrich Bienert, who always had a sympathetic ear for all my problems and questions. In addition, many thanks are due to Mr. Heinz-Werner Weber at the DFG for his excellent help and advice regarding financial matters.

Just as important was the funding received from the municipality of Herxheim, without which the research excavation so crucial for our understanding of the site could not have been carried out. Especially heartfelt thanks are due to its now retired former mayor Ellmar Weiler, whose personal dedication for the project went well beyond anything we could have expected. With the energetic help of his “right hand” Christa Müller he supported our work on site just as much as the establishment of the Museum Herxheim as the long-term home for the most important finds.

The Eberspächer-catem company in Herxheim is to be thanked for their support for the research excavation and for donations to the museum.

The funds of the National Geographic Society (Washington, USA) made it possible to excavate further test trenches in 2010, shedding light on important questions such as the situation in the eastern part of the enclosure.

In 2003, when I first began to think in earnest about starting a large research project concerning Herxheim, it was the then director of the Speyer branch office of the state archaeological service, Prof. h.c. Dr. Helmut Bernhard, who encouraged me to apply to the DFG; until his retirement in 2013 he continued to support the project and was always ready to provide help and advice, for which I owe him my sincere gratitude. I would also like to thank his successor, Dr. Ulrich Himmelmann, for his energetic help in the completion of this volume and for many important conversations. Finally, I am indebted to Prof. Dr. Andreas Zimmermann, the co-applicant for the DFG project.

Of course, any research project is mainly carried by the personal enthusiasm of the researchers involved. I would therefore like to express my heartfelt thanks to everyone on the “core team” of the project, in particular to those who have stuck with it to the end and whose results are now being published in this and the following (Herxheim Vol. 2) book: Rose-Marie Arbogast, Silja Bauer, Anthony Denaire, Fabian Haack, Dirk Schimmelpennig and Rouven Turck. It was your unwavering motivation and great personal dedication which made this publication possible in the first place.

My most important project partner for many years was Fabian Haack, whom I would particularly like to thank for many valuable and intensive discussions and for his faithful cooperation.

The results achieved at Herxheim would not have been possible without the many scientific analyses; I am therefore truly grateful for the cooperation of the many members of the extended project team who contributed their crucial results: Nicole Boenke, Ruth Bollongino, Joachim Burger, Rosalind E. Gillis, Irka Hajdas, Markus Helfert, Emily Johnson, Bernd Kober, Johanna Kontny, Oliver Mecking, Olaf Nehlich, Martin Posselt, Britta Ramminger, Ira Richling, Wolfgang Rähle, Thomas Tütken and Julian Wiethold.

Michael Münzer, excavation technician at the Speyer branch office, contributed invaluable innovative ideas to the running of the research excavation and has enthusiastically supervised it in the field for four years; I would like to take this opportunity to thank him for his tireless commitment.

Alexander Gramsch, director of the Herxheim museum, provided for a lively and always up-to-date mediation of the site and its astonishing finds to the public. Furthermore he always was an important discussion partner for me and supplied fruitful input concerning the theoretical background of rituals and feasting.

The countless colleagues who have, over the last 12 years, provided ideas, constructive criticism and discussions on Herxheim cannot all be mentioned individually, as this would take a whole new volume. However, I would like to stress how exceptionally grateful I am to them all for their invaluable contributions and active support of our research project.

The great international interest in Herxheim led to the decision to publish the site in English in order to make it accessible to as many scholars as possible. Without the excellent translations of Daniela Hofmann and her patience in answering our many queries, this would not have been possible – many heartfelt thanks, Daniela.

The sometimes rather tricky layout was patiently and masterfully accomplished by Ulrike Lorenz-Link, whom I would like to thank for the excellent cooperation.

A project that has gone on for this long and has involved so many people was bound to have its scholarly and personal highs and lows. Without the unwavering support and encouragement of my husband, Gerhard Lanz, who has been my “tower of strength”, I would not have been able to bring this undertaking to a good conclusion – thank you for believing in me.

The foundations for the Herxheim project were laid by Annemarie Häußler (†), who directed the first excavation campaign with great enthusiasm and dedication. With her wealth of ideas and motivation she was able to bring both her co-excavators and the municipality of Herxheim under the spell of this extraordinary site.

Last but not least, Ludger Schulte (†), conservator in the Speyer branch office, has contributed fundamentally to the success of the project. He tirelessly devoted his attention to the pottery from Herxheim and on many site tours fascinated the visiting public with his vivid explanations and stories about archaeology.

It is to the memory of these two exceptional colleagues and friends, who sadly left us far too soon but whose personalities will forever be connected to Herxheim, that we dedicate the present volume.

*Andrea Zeeb-Lanz*

Project director, editor

# CONTENT

## Volume 1

<i>Andrea Zeeb-Lanz, Fabian Haack</i> History of research at Herxheim – an “interpretative thriller”	1
<i>Fabian Haack</i> The early Neolithic ditched enclosure of Herxheim – architecture, fill formation processes and service life	15
<i>Andrea Zeeb-Lanz</i> The contents of the find concentrations – selected examples in comparison (with contributions from <i>Rose-Marie Arbogast, Bruno Boulestin, Anne-Sophie Coupey,</i> <i>Fabian Haack, Christian Jeunesse, Anthony Denaire and Dirk Schimmelpfennig</i> )	119
<i>Fabian Haack</i> The early Neolithic ditched enclosure of Herxheim – Plates and Tables	153

# HISTORY OF RESEARCH AT HERXHEIM – AN “INTERPRETATIVE THRILLER”

ANDREA ZEEB-LANZ, FABIAN HAACK

## **Content:**

<b>1. Introduction</b>	<b>3</b>
<b>2. Discoveries prior to the first excavations in 1995</b>	<b>3</b>
<b>3. Archaeological excavations in the Herxheim enclosure</b>	<b>3</b>
3.1. Rescue excavations 1996–1999	3
3.1.1. Post-excavation work for the rescue excavations up to 2004	4
3.2. Research excavations 2005–2008	5
3.2.1. Background	5
3.2.2. Fieldwork	5
<b>4. Analysis of the finds concentrations and of specific categories of material up to 2014</b>	<b>6</b>
<b>5. Interpretative approaches for the unusual site of Herxheim</b>	<b>7</b>
5.1. The enclosure	7
5.2. The finds concentrations and their significance	8
<b>6. Bibliography</b>	<b>10</b>

# THE EARLY NEOLITHIC DITCHED ENCLOSURE OF HERXHEIM – ARCHITECTURE, FILL FORMATION PROCESSES AND SERVICE LIFE

FABIAN HAACK

## Content:

<b>Preface</b>	<b>19</b>
<b>A. Introduction and method of investigation</b>	<b>21</b>
1. Natural environment and geology	21
2. Features and Finds: an overview	21
3. Excavation methods and data processing	24
3.1. Excavation method for the 1996-1999 excavations	24
3.2. Analysis of excavation data and finds for the 1996-1999 excavations	26
3.3. Excavation method for the 2005-2008 excavations	27
3.4. Processing of the excavation data and the finds for the 2005-2008 excavations	31
3.4.1. Finds and features	31
3.4.2. 3D-reconstruction of the ditch circuits and the finds distribution	31
3.4.3. Creating longitudinal and cross-sections	31
3.4.4. Interpretation	32
4. Method of investigation	32
4.1. Identification of long pits and assessment of recuts	32
4.2. Reconstruction of the fill formation processes and defining the limits of concentrations	33
5. Dating the enclosure's period of use	34
5.1. Absolute dating	34
5.2. Finds	35
5.3. Refits of sherds, bone fragments and stone artefacts	36
<b>B. The ditched enclosure at Herxheim: excavations 2005-2008, sondages 2010 and excavations 1996-1999</b>	<b>37</b>
<b>6. The 2005-2008 excavations</b>	<b>37</b>
6.1. Architecture and fill formation processes in the area of long pits LG 7.1 to LG 7.6 of the inner ditch, with concentrations K 16, K 21/23 and K 20/22	37
6.1.1. Long pits and architecture	37
6.1.2. Transitions between long pits and stratigraphic overlaps	39
6.1.3. Consistency of the basal fills	40
6.1.4. Results: architecture and basal fills	40
6.1.5. Concentrations and fill formation processes	41
6.1.6. Results: reconstructing the fill formation process	48
6.2. Architecture and fill formation processes in the area of long pits LG 7.6 and LG 7.7 in the inner ditch, with concentrations K 2 and K 4	50
6.3. Architecture and fill formation processes in the area of long pits LG 7.7 to LG 7.12 of the inner ditch, with concentrations K 1/14, K 10, K 19	51
6.3.1. Long pits and architecture	51
6.3.2. Transitions between the long pits and stratigraphic overlaps	54

6.3.3.	Consistency of the basal fills	55
6.3.4.	Results: architecture and basal fills	56
6.3.5.	Concentrations and fill formation processes	56
6.3.6.	Results: reconstructing the fill formation processes	63
6.4.	Architecture and fill formation processes in the area of long pits LG 7.12 to LG 7.16 of the inner ditch, with concentrations K 12, K 13 and K 9/18.	65
6.4.1.	Long pits and architecture	65
6.4.2.	Transitions between the long pits and stratigraphic overlaps	67
6.4.3.	Consistency of basal fills	68
6.4.4.	Results: architecture and basal fills	68
6.4.5.	Concentrations and fill formation processes	69
6.4.6.	Results: reconstructing the fill formation processes	76
6.5.	Architecture and fill formation processes in the area of long pits LG 7.16 to LG 7.21 of the inner ditch, with concentration K 24	77
6.5.1.	Excavation	77
6.5.2.	Long pits and basal fill	78
6.5.3.	Finds distribution, concentrations and dating	78
6.5.4.	Fill formation processes	80
6.5.5.	Results	80
6.6.	Architecture and fill formation processes in the outer ditch ring, with concentration K 11/15	80
6.6.1.	Excavation	80
6.6.2.	Long pits and basal fills	81
6.6.3.	Finds distribution, concentrations and dating	82
6.6.4.	Fill formation processes	84
6.6.5.	Results	85
<b>7.</b>	<b>The course of the ditched enclosure in the north and east: the 2010 sondages</b>	<b>85</b>
7.1.	Overview	85
7.2.	The investigations in sondage 1	86
7.3.	The investigations in sondage 2	86
7.4.	Results	87
<b>8.</b>	<b>The 1996–1999 excavations: the outer ditch ring</b>	<b>87</b>
8.1.	Separating the long pit segments	87
8.2.	Area of slots 281-69 to 281-63, long pit segment 281/E	87
8.2.1.	Separating the long pits	87
8.2.2.	Dating the long pits	88
8.2.3.	Identifying recuts	88
8.2.4.	Fill formation processes	89
8.2.5.	Defining the concentrations	89
8.3.	Area of slots 281-125 to 281-128; long pit segment 281/A	89
8.3.1.	Separating the long pits	89
8.3.2.	Dating the long pits	89
8.3.3.	Identifying recuts	90
8.3.4.	Fill formation processes	90
8.3.5.	Defining the concentrations	90
8.4.	Area of slots 281-129 to 281-144SE, long pit segment 281/B	90
8.4.1.	Separating the long pits	90
8.4.2.	Dating the long pits	91
8.4.3.	Identifying recuts	92
8.4.4.	Fill formation processes	92
8.4.5.	Defining the concentrations	93
8.5.	Area of slots 281-144 NW to 281-149, long pit segment 281/C	93
8.5.1.	Separating the long pits	93
8.5.2.	Dating the long pits	94

8.5.3.	Identifying recuts and fill formation processes	94
8.5.4.	Defining the concentrations	96
8.6.	Area of slots 281-150 to 281-155, long pit segment 281/D	96
8.6.1.	Separating the long pits	96
8.6.2.	Dating the long pits	97
8.6.3.	Identifying recuts	97
8.6.4.	Fill formation processes	97
8.6.5.	Defining the concentrations	97
8.7.	Area of slots 281-19 to 281-20, long pit segment 281/F	98
8.7.1.	Separating the long pits	98
8.7.2.	Dating the long pits	98
8.7.3.	Identifying recuts	98
8.7.4.	Fill formation processes	98
8.7.5.	Defining the concentrations	98
8.8.	Results: dating the outer ditch ring and reconstructing its architecture and fill formation processes as revealed in the 1996–1999 excavations	99
<b>9.</b>	<b>The 1996–1999 excavations: the inner ditch ring</b>	<b>99</b>
9.1.	Separating the long pit segments	100
9.2.	Area of slots 991-5 to 991-1, long pit segments 282/J and 282/K	100
9.2.1.	Separating the long pits	100
9.2.2.	Dating the long pits	101
9.2.3.	Identifying recuts	101
9.2.4.	Fill formation processes	101
9.2.5.	Defining the concentrations	102
9.3.	Area of slots 282-55 to 282-67, long pit segments 282/F, 282/G and 282/H	102
9.3.1.	Separating the long pits	102
9.3.2.	Dating the long pits	103
9.3.3.	Identifying recuts	103
9.3.4.	Fill formation processes	103
9.3.5.	Defining the concentrations	104
9.4.	Area of slots 282-129/-130, long pit segment 282/A	104
9.4.1.	Separating the long pits	104
9.4.2.	Dating the long pits	104
9.4.3.	Identifying recuts	104
9.4.4.	Fill formation processes	104
9.4.5.	Defining the concentrations	104
9.5.	Area of slots 282-131 to 282-139E, long pit segment 282/B	105
9.5.1.	Separating the long pits	105
9.5.2.	Dating the long pits	105
9.5.3.	Identifying recuts	106
9.5.4.	Fill formation processes	107
9.5.5.	Defining the concentrations	107
9.6.	Area of slots 282-139 NW to 282-145SE, long pit segment 282/C	108
9.6.1.	Separating the long pits	108
9.6.2.	Dating the long pits	108
9.6.3.	Identifying recuts	109
9.6.4.	Fill formation processes	109
9.6.5.	Defining the concentrations	109
9.7.	Area of slots 282-145 to 282-148, long pit segments 282/D and 282/E	110
9.7.1.	Separating the long pits	110
9.7.2.	Dating the long pits	110
9.7.3.	Identifying recuts	110
9.7.4.	Fill formation processes	110
9.7.5.	Defining the concentrations	111
9.8.	Area of slots 282-21 to 282-23, long pit segment 282/L	111

9.8.1. Separating the long pits	111
9.8.2. Dating the long pits	111
9.8.3. Identifying recuts	111
9.8.4. Fill formation processes	112
9.8.5. Defining the concentrations	112
9.9. Results: dating the inner ditch ring and reconstructing its architecture and fill formation processes as revealed in the 1996–1999 excavations	112
<b>10. The ditched enclosure at Herxheim: results</b>	<b>113</b>
10.1. Architecture	113
10.2. Fill formation processes and concentrations	114
10.3. Period of use and function	115
<b>11. Bibliography</b>	<b>116</b>



# THE CONTENTS OF THE FIND CONCENTRATIONS – SELECTED EXAMPLES IN COMPARISON –

## Presentation of the Contents of Concentrations K 1/14, K 4, K 9/18, K 20/22, K 16 and K 21/23 from the Research Excavation 2005–2008

ANDREA ZEEB-LANZ

WITH CONTRIBUTIONS FROM ROSE-MARIE ARBOGAST, BRUNO BOULESTIN,  
ANNE-SOPIE COUPEY, ANTHONY DENAIRE, FABIAN HAACK, CHRISTIAN JEUNESSE  
AND DIRK SCHIMMELPFENNIG

### **Content:**

<b>Introduction</b>	<b>121</b>
<b>1. Concentration K 1/14</b>	<b>122</b>
1.1. Description of the feature	122
1.2. The finds material	126
<b>2. Concentration K 4</b>	<b>127</b>
2.1. Description of the feature	127
2.2. The finds material	130
<b>3. Concentration K 9/18</b>	<b>131</b>
3.1. Description of the feature	131
3.2. The finds material	133
<b>4. Concentration K 20/22</b>	<b>134</b>
4.1. Description of the feature	134
4.2. The finds material	137
<b>5. Concentration K 16</b>	<b>138</b>
5.1. Description of the feature	138
5.2. The finds material	140
<b>6. Concentration K 21/23</b>	<b>141</b>
6.1. Description of the feature	141
6.2. The finds material	143
<b>7. Interpretation</b>	<b>144</b>
<b>8. Bibliography</b>	<b>152</b>