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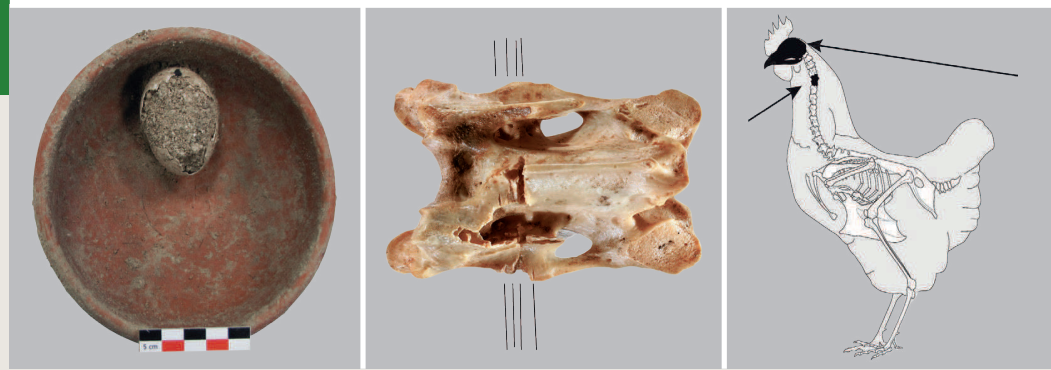
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# KOLLOQUIEN ZUR VOR- UND FRÜHGESCHICHTE 26



Sabine Deschler-Erb | Umberto Albarella  
Silvia Valenzuela Lamas | Gabriele Rasbach

## ROMAN ANIMALS IN RITUAL AND FUNERARY CONTEXTS

Proceedings of the 2<sup>nd</sup> Meeting of the  
Zooarchaeology of the Roman Period Working  
Group, Basel, 1<sup>st</sup>–4<sup>th</sup> February 2018

This volume includes a number of papers that were originally presented at the conference *Roman Animals in Ritual and Funerary Contexts*, which was held in Basel (Switzerland) from 1<sup>st</sup>–4<sup>th</sup> February 2018. The conference represented the second meeting of the International Council for Archaeozoology (ICAZ) Working Group on the *Zooarchaeology of the Roman Period*.

The articles present ritually deposited animal remains across a wide geographical range and incorporate both archaeological and zoological findings. The integration of these two strands of evidence is also one of the central concerns of the ICAZ Working Group, as in the past they have often been dealt with separately. However, it is precisely this interdisciplinary cooperation that opens up new perspectives on ritual practices in a wide variety of contexts. In this volume we see the enhancement of our understanding of ritual treatment of animals in central sanctuaries, in rural areas, at natural sites, and as part of building construction processes.

The case studies presented in this volume demonstrate how animal remains such as bones and eggshells provide information beyond diet, economy, and differences in social hierarchy. Their interdisciplinary investigation additionally enables insights into practices governed by cultural, religious, and ideological conditions.

The aim of the Zooarchaeology of the Roman Period Working Group (<https://alexandriaarchive.org/icaaz/workroman>) is to represent a network of exchange and collaboration across borders and to enable the understanding of the interconnections between the research questions associated with animal remains from this important historical period.

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Sabine Deschler-Erb, Umberto  
Albarella, Silvia Valenzuela Lamas,  
Gabriele Rasbach  
ROMAN ANIMALS IN RITUAL  
AND FUNERARY CONTEXTS

DEUTSCHES ARCHÄOLOGISCHES INSTITUT  
Römisch-Germanische Kommission, Frankfurt a. M.

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# Vorwort zur Reihe „Kolloquien zur Vor- und Frühgeschichte“

In Händen halten Sie, liebe Leserin und lieber Leser, den 26. Band der „Kolloquien zur Vor- und Frühgeschichte“, der Ihnen neu und doch vertraut vorkommen mag. Denn diese Reihe, die von der Römisch-Germanischen Kommission (RGK) und der Eurasien-Abteilung des Deutschen Archäologischen Instituts (DAI) gemeinsam herausgegeben wird, existiert seit 23 Jahren, seit im Jahr 1997 die Akten des Internationalen Perlensymposiums in Mannheim als Band 1 publiziert wurden. Neu ist aber, dass die RGK erstmals die Herausgabe eines Bandes im neuen Reihenformat des DAI betreut hat. Die Aufmachung der „Kolloquien zur Vor- und Frühgeschichte“ (KVF) entspricht nun der Aufmachung zahlreicher weiterer Publikationsreihen des DAI. Das neue Layout ist moderner, attraktiver und nutzerfreundlicher. Es ist nun für viele DAI-Publikationsreihen nutzbar und hat einerseits einen hohen Wiedererkennungswert, erlaubt andererseits individuelle Anpassungen und Nutzungen.

Auch der vorliegende Band ist, wie es seit ihren Anfängen prägend für die KVF ist, ein Beispiel international ausgerichteter, Forschungstraditionen und -regionen übergreifender Wissenschaft. Inhaltlich schließt dieser 26. Band an eine ganze Reihe von KVF-Sammelbänden mit interdisziplinärer bzw. fachübergreifender Ausrichtung an. Mit KVF 26 stehen diesmal interdisziplinäre Untersuchungen zu Mensch-Tier-Beziehungen in den verschiedenen regionalkulturellen Kontexten des Römischen Reiches im Mittelpunkt und insbesondere die Rolle von Tieren in Zusammenhang mit Bestattungen und anderen Ritualen.

Knochengewebe vermag sehr gut, viele verschiedene Spuren menschlichen Handelns zu konservieren, und diese Spuren können wir als Zeugnisse dieser Handlungen, aber auch der dahinterstehenden Überlegungen, Absichten und Traditionen verstehen. So erlauben Tierknochen, aber auch andere Überreste wie Eierschalen, die Verknüpfung zoologischer Methoden und Fragen mit jenen einer sozial- und kulturhistorisch orientierten Archäologie. Tierreste sind also in jedem Sinne *archäologische* Funde, die nicht nur zu Ernährungs- und Wirtschaftsfragen Auskunft geben können, auch nicht allein zu sozialhierarchisch begründeten Unterschieden bei Bestattungsbeigaben, sondern auch zu *per se* kulturhistorischen Fragen wie eben jenen nach kulturell, religiös

bzw. weltanschaulich bestimmten Praktiken, nach Differenzen in ihrer Ausübung, nach ihren regional spezifischen Bedeutungen und nach ihren Veränderungen.

Damit liegt ein informativer und instruktiver 26. Band der KVF vor mit neuen Ansätzen, neuen Fragen und neuen Einsichten in einem neuen gestalterischen Gewand. Die Aufnahme der Reihe KVF in die einheitliche Publikationsgestaltung des DAI ermöglicht auch, diesen und weitere KVF-Bände in Zukunft in der *iDAI.world* – der digitalen Welt des DAI – unter *iDAI.publications/books* online zugänglich zu machen und zum Abruf im Open Access bereitzustellen. Zwar dient auch den interdisziplinär arbeitenden Altertumswissenschaften das gedruckt erscheinende Werk nach wie vor als Hauptmedium fachwissenschaftlichen Austauschs, doch stehen uns durch die digitale Vernetzung unterschiedlicher Daten- und Publikationsformate mittlerweile zahlreiche weitere Möglichkeiten der Veröffentlichung wissenschaftlicher Inhalte zur Verfügung. Das neue Publikationsformat ermöglicht die zukunftsweisende Verknüpfung von Print und digitalen Dokumentations- und Publikationsressourcen, z. B. durch das zeitgleiche Bereitstellen digitaler Supplemente.

Das Erscheinen von 26 Bänden in kurzen Abständen zeigt, dass die vor über 20 Jahren konzipierte Reihe erfolgreich war und ist, innovativ bleibt und in eine lebendige Zukunft blickt. Auch künftig werden Eurasien-Abteilung und RGK die Reihe „Kolloquien zur Vor- und Frühgeschichte“ im neuen Gewand und – wo sinnvoll und notwendig – als hybride Verknüpfung analoger und digitaler Wissensvermittlung fortführen. Und wie bisher werden wir in die KVF Beiträge von Tagungen und Symposien aufnehmen, an deren Vorbereitung und Durchführung wir personell bzw. organisatorisch beteiligt waren.

Zuletzt noch ein Dank an alle an der vorliegenden Publikation Beteiligten. Für die Möglichkeit im neuen Reihenformat des DAI publizieren zu können, danken wir ganz herzlichen den Kolleginnen und Kollegen der Redaktion der Zentrale. Die Bildbearbeitung der Beiträge lag in den Händen von Oliver Wagner. Johannes Gier war für das Lektorat der Beiträge verantwortlich. Lizzie Wright redigierte die englischen Texte, Hans-Ulrich Voß betreute die Drucklegung des Buches. Ihnen wie den Herausgeber\*innen des Bandes danken wir sehr für die hervorragende Vorbereitung und Durchführung der Publikation.

Frankfurt am Main, den 12.11.2020

Eszter Bánffy  
Erste Direktorin

Kerstin P. Hofmann  
Zweite Direktorin

Alexander Gramsch  
Redaktionsleiter



# Preface to the series “Kolloquien zur Vor- und Frühgeschichte”

In your hands, dear reader, you hold the 26<sup>th</sup> volume of the series “Kolloquien zur Vor- und Frühgeschichte”: It might seem to you different, but still familiar, because this series, concomitantly published by the Romano-Germanic Commission (RGK) and the Eurasia Department of the German Archaeological Institute (DAI), has been in existence for 23 years. The first volume, published in 1997, consisted of the proceedings of the “Internationales Perlensymposium” held in Mannheim. What is new is that the RGK has published a volume in the new DAI series format for the first time. The layout of “Kolloquien zur Vor- und Frühgeschichte” (KVF) now matches the layout of numerous other DAI publication series. This modern layout is more attractive and more user-friendly; the new format is mirrored across many DAI publication series. Not only does it have a distinctive design; it also enables individual adaptations and uses.

The present volume, as is characteristic of the KVF series from its beginnings, is an example of internationally oriented scholarship spanning diverse research traditions and research fields. In terms of content, this 26<sup>th</sup> volume continues a long tradition of conference proceedings with an interdisciplinary or cross-disciplinary orientation published within KVF. The focus of KVF 26 is on interdisciplinary studies of human-animal relationships in different regional-cultural contexts of the Roman Empire. In this, particular emphasis lies on the role of animals in burial and other ritual contexts.

Bone tissue excellently preserves many different traces of human actions. These traces can be interpreted as the evidence of these actions as well as of the underlying reflections, intentions, and traditions. Animal bones as well as other remains such as eggshells therefore make it possible to link zoological methods and issues with those related to socially and cultural-historically oriented archaeology. Animal remains are thus *archaeological* finds in every sense: They provide information not only about diet and economy, or about differences in grave goods based on social hierarchy. They touch on key cultural issues such as culturally, religiously or ideologically determined practices. Moreover, zooarchaeological analyses allow us to detect differences in these practices, to identify regionally specific meanings and the changes therein.

Thus, an informative and instructive 26<sup>th</sup> volume of the KVF series is available in a new design, including new approaches, new research questions, and new insights. In the future, through the incorporation of the KVF series into the common DAI publication design this and further volumes can be published online: on the *iDAI.world* platform – the digital world of the DAI – under *iDAI.publications/books* and in Open Access. Printed publications admittedly still serve as a main medium for subject-specific exchanges for interdisciplinary archaeological studies. The new publication format allows digital networking of various data and publication formats providing us with numerous additional possibilities for the publication of scientific content and enabling the future-oriented linking of print and digital documentation and publication resources, for example through the simultaneous provision of digital supplements.

The publication of 26 KVF volumes at short intervals shows that this series conceived over 20 years ago has been successful, remains innovative, and looks ahead to a lively future. From now on the Eurasia Department and the Romano-Germanic Commission will continue the series “Kolloquien zur Vor- und Frühgeschichte” in the new design and, where this seems reasonable and vital, in the form of a hybrid connection of analogue and digital knowledge. As in the past, in the KVF series we will continue incorporating proceedings of meetings and symposia in the preparation of which we are involved personally or organisationally.

Lastly we want to express our gratitude to all who participated in producing the present publication. We thank our colleagues from the editorial office at the Head Office of the German Archaeological Institute for the opportunity to publish in the new DAI series format. The digital imaging of the contributions was carried out by Oliver Wagner. Johannes Gier was responsible for the copyediting of the contributions. Lizzie Wright edited the English texts. Hans-Ulrich Voß was in charge of the editorial process. We are very grateful to all these people and to the editors of the volume for the outstanding preparation and realisation of this publication.

*Translated by Karoline Mazurié de Keroualin.*

Frankfurt am Main, 12 November 2020

Eszter Bánffy  
Director

Kerstin P. Hofmann  
Deputy Director

Alexander Gramsch  
Head of the editorial office

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RPWG  
BASEL  
2018



(Logo: Stefanie Deschler)

# Preface

by Sabine Deschler-Erb / Umberto Albarella / Silvia Valenzuela Lamas / Gabriele Rasbach

This volume includes contributions that were originally presented at the conference *Roman Animals in Ritual and Funerary Contexts*, which was held in Basel 1<sup>st</sup>–4<sup>th</sup> February 2018 and organised by Sabine Deschler-Erb. The conference represented the second meeting of the International Council for Archaeozoology (ICAZ) Working Group on the *Zooarchaeology of the Roman Period*.

ICAZ Working Groups are largely informal and independent collectives of researchers engaged with a theme of common interest. Their association with ICAZ allows them to connect to a larger international community and benefit from a number of shared facilities, such as the ICAZ web page <<https://www.alexandriaarchive.org/icaz/index>> (last access: 20.10.20)> and Newsletter <<http://alexandriaarchive.org/icaz/publications-newsletter>> (last access: 20.10.20)>. They also enjoy the opportunity to share the ICAZ ethos of collaboration, mutual aid, and international solidarity.

The *Zooarchaeology of the Roman Period* ICAZ Working Group was originally proposed by Silvia Valenzuela Lamas and Umberto Albarella and approved by the ICAZ International Committee in 2014. The aspiration to create such a group emerged from the awareness that the Roman World was intensively connected. Nevertheless, much research on the use of animals in Roman or Romanised areas has been carried out at a localised level, often oblivious of parallel studies undertaken in other regions of Roman influence. It was clear that many of the investigated research themes – such as the use of animals in religious contexts, livestock trade, and husbandry improvements, to mention just a few – would benefit from greater integration and enhanced international synergies. This applied to the methodological approach, as well as the actual evidence from different areas of the Empire. With this objective in mind, the first meeting was organised in Sheffield (UK) 20<sup>th</sup>–22<sup>nd</sup> November 2014 by the two Working Group promoters and focused on *Husbandry in the Western Roman Empire: a zooarchaeological perspective*. The core objective of the meeting was to bring together researchers operating in different areas of the former Roman World and contiguous regions, which was successfully achieved. Some of the contributions to that conference were published in a monographic issue of the *European*

*Journal of Archaeology* (Volume 20, Special Issue 3, August 2017).

The focus on the western Empire that characterised the first meeting led to the need to open up geographically for the second meeting and focus on a thematic investigation which would be of fully international relevance. Sabine Deschler-Erb proposed to organise the second meeting in Basel (Switzerland) and this, at the very core of Europe, proved to be a very successful location. She suggested a number of possible topics to the informal membership of the group and the theme of ‘ritual’ was chosen. This was another fruitful move as there was hardly any shortage of material to present, and the conference provided a whirlwind of case studies across different areas, whose connections and shared questions could clearly be identified. The objective of the second meeting to move beyond the focus on the Western Empire was fully achieved. The list of papers included in this volume clearly shows the great geographic range on display, with different contributions presenting research based in the south, north, east, and west of the Roman area. The modern countries featured in the book include Austria, Belgium, Britain, Egypt, France, Germany, Greece, Italy, Malta, the Netherlands, Romania, Serbia, Switzerland and Turkey.

The Basel conference and its proceedings should provide an ideal springboard for further success and interconnection of researchers investigating the use of animals in Roman times.

Last but not least, we would like to express our great gratitude to all of the institutions and people who made the Basel conference and these proceedings possible. We thank the University of Basel, especially the Integrative Prehistory and Archaeological Science, for hosting the conference, as well as for technical and administrative support; the Swiss National Foundation, the Provincial Roman Archaeology Working group of Switzerland, and the Vindonissa chair of the University of Basel for their financial support; the Römerstadt Augusta Raurica, the Kantonsarchäologie Aargau, and the Römerlager Vindonissa for their warm welcome and generous catering; the organisation team, Monika Mráz, David Roth, and Viviane Kolter-Furrer, whose help was essential before, during, and after the conference; all student volunteers, Florian Bachmann, Debora Brunner, Marina Casaulta,

Laura Caspers, Sarah Lo Russo, Hildegard Müller, and Benjamin Sichert, who worked with great commitment; and the Romano-Germanic Commission, Frankfurt, who accepted these proceedings for their series. We thank Hans-Ulrich Voß and Johannes Gier, who carried out an excellent editing job.

The next conference will take place in Dublin (Ireland) on 11<sup>th</sup>–13<sup>th</sup> March 2021 and will be organised by Fabienne Pigière on the topic of *Animals in Roman economy*. It will certainly provide new opportunities for cross-fertilisation, collaboration, and exchange of ideas.



# Faunal remains from a 4<sup>th</sup>–5<sup>th</sup> century church complex at ‘Ain el-Gedida, Upper Egypt

by Pam J. Crabtree / Douglas V. Campana

## Keywords

‘Ain el-Gedida, Late Roman Egypt, Christianity, faunal remains, animal husbandry, hunting

## Schlüsselwörter

‘Ain el-Gedida, spätrömisches Oberägypten, Christentum, Jagd, Tierhaltung, Landwirtschaft

## Mots-clés

‘Ain el-Gedida, Égypte romaine tardive, chrétienté, restes de faune, élevage, chasse

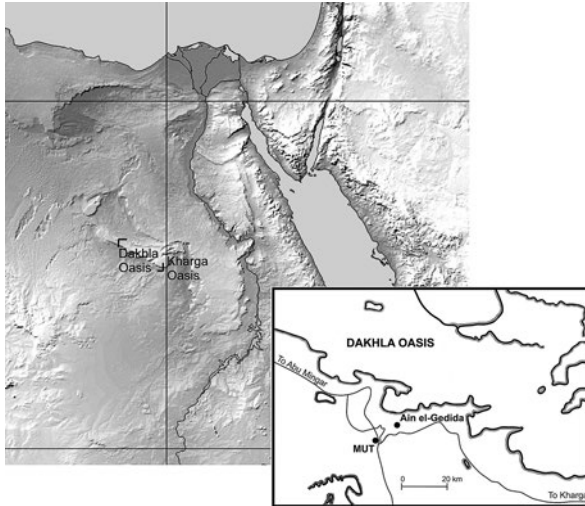
## Introduction

The Edict of Milan in 313 ended the Roman Empire’s persecution of Christianity. By the early 4<sup>th</sup> century, Christianity was well established in Egypt, and Egypt was home to the eremitic tradition and early monastic communities. Excavations at the site of ‘Ain el-Gedida (*fig. 1*) provided a unique opportunity for archaeologists to study an early church complex in the Egyptian western desert. The site of ‘Ain el-Gedida is located in the Dakleh Oasis of Upper Egypt and was initially surveyed by the Dakleh Oasis Project in 1980 (*fig. 1*). Subsequent excavations were carried out by the local Coptic and Islamic Inspectorate between 1993 and 1995. At that time, the site, which includes both a church and settlement evidence, was identified as a rural village or a monastic community. Subsequent excavations were carried out by Dr. Nicola Aravecchia between 2006 and 2008 under the direction of Professor Roger Bagnall of Columbia Uni-

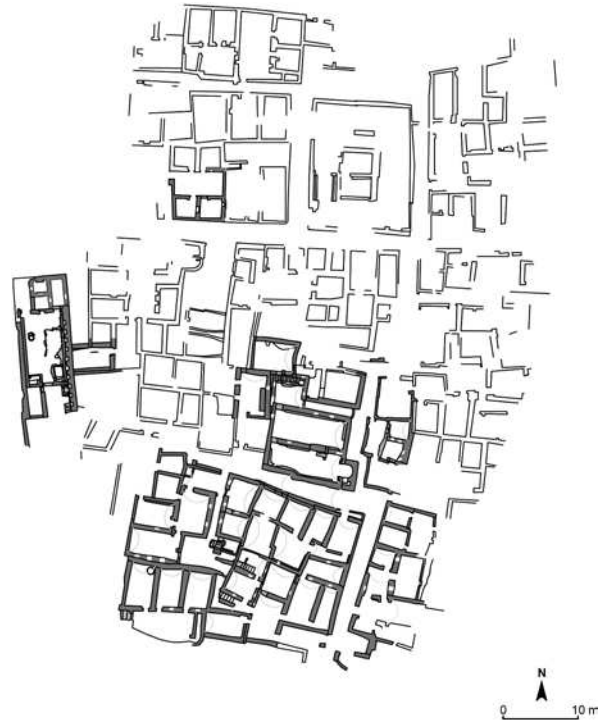
versity and the Institute for the Study of the Ancient World at New York University (*fig. 2*).

Ceramics and other archaeological materials recovered from the 2006–2008 excavations indicate that the site was occupied from the early 4<sup>th</sup> through the early 5<sup>th</sup> centuries CE. Aravecchia has argued that the site is not necessarily monastic<sup>1</sup>. He has suggested that the site may represent an agricultural settlement with wage or tenant labour, possibly seasonal and dependent on the nearby site of Kellis. The closest architectural parallel to the Church at ‘Ain el-Gedida is the small east church at Kellis. While not addressing Roman ritual per se, the study of the faunal remains recovered from this early Christian settlement can shed light on Late Roman diet and economy in the early Christian oasis communities of the Egyptian desert.

1 Aravecchia 2018.



1 Map showing the location of 'Ain el-Gedida and the Dakleh Oasis.



2 Plan of 'Ain el-Gedida Mound 1 showing the areas that were excavated, courtesy of Dr. Nicola Aravecchia.

## Materials and Methods

Over 1900 animal bones and fragments recovered from the excavations at 'Ain el-Gedida in the Dakleh Oasis in western Egypt were studied during January of 2011. The following information was recorded for each bone fragment: species, body part, portion, and degree of fragmentation. The condition of the bones, including evi-

dence for weathering, gnawing, and butchery, was also recorded. Ageing data were based on both epiphyseal fusion of the long bones<sup>2</sup> and dental eruption and wear<sup>3</sup>, and bone measurements were recorded<sup>4</sup>. The data were entered on a personal computer using *FAUNA*, a Windows-based update to the *ANIMALS* software<sup>5</sup>.

## Results

The animal bones identified to species are shown in *table 1*. The 'Ain el-Gedida faunal collection is dominated by the remains of domestic mammals, including pigs, caprines (sheep and goats), donkeys, and cattle. Small numbers of both sheep and goat bones were identified, but the vast majority of the remains were indeterminate sheep/goat fragments. All the identified bird bones were

those of domestic chickens, and chickens are the most common bird species at the neighbouring site of Amheida as well. Chickens would have been an important source of both meat and eggs. A small number of gazelle (*Gazella dorcas*) bones were recovered, indicating that animal husbandry was supplemented by occasional desert hunting.

2 Silver 1969.

3 Grant 1982; Payne 1973.

4 Following von den Driesch 1976.

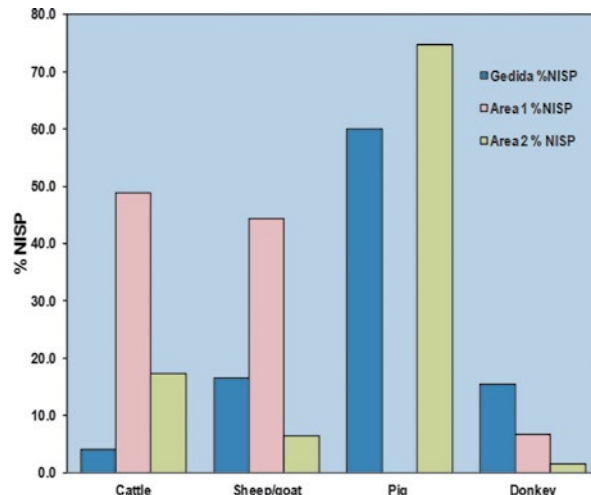
5 Campana 2010.

	N
<b>Domestic Mammals</b>	
Donkey ( <i>Equus asinus</i> )	58
Cattle ( <i>Bos taurus</i> )	32
Sheep ( <i>Ovis aries</i> )	2
Goat ( <i>Capra hircus</i> )	6
Sheep/goat	58
Pig ( <i>Sus scrofa</i> )	240
Dog ( <i>Canis familiaris</i> )	47
Cat ( <i>Felis catus</i> )	5
<b>Wild Mammals</b>	
Gazelle ( <i>Gazella dorcas</i> )	3
<b>Domestic Birds</b>	
Chicken ( <i>Gallus gallus</i> )	8
<b>Higher order taxa</b>	
Large mammal "cattle-sized"	29
Small artiodactyl	118
Equid	4
Rodent, cf. Rat ( <i>Rattus</i> sp.)	12
Unidentified rodent	8
Small carnivore	2
Small mammal	4
Chicken-sized bird	5
Unidentified mammal	1277
Unidentified bird	22
Unidentified	2
<b>Total</b>	<b>1942</b>

Tab. 1 Animal bones identified from the 2006–2008 excavations at 'Ain el-Gedida.

Although the 'Ain el-Gedida bones were carefully collected, many were in a relatively poor state of preservation. 98 bone fragments were clearly burned or calcined, and burning can often lead to bone fragmentation. A number of the excavation units included the remains of hearths and cooking areas, so the animal bones are likely to be a direct reflection of diet. Many of the bones were encrusted with salt deposits, and this may have led to bone fragmentation as well. A number of the bones showed clear evidence for rodent gnawing, but very few had obvious signs of weathering suggesting that they were rapidly buried.

The species ratios for the large domestic mammals were calculated based on fragment counts or NISP<sup>6</sup>. In these calculations, the indeterminate equid remains were



3 Species ratios based on NISP for the large domestic mammals from the church complex at 'Ain el-Gedida and Areas 1 and 2 at Amheida (Roman *Trimithis*).

included with the identified donkey bones. The species ratios are shown in the figure 3, along with the data from Areas 1 and 2 at Amheida. Area 1 is a 3<sup>rd</sup> century middle class household that was involved in the trans-Saharan trade, while Area 2 is a wealthy 4<sup>th</sup> century urban villa that was owned by a pagan whose dining room was decorated with the images of pagan gods. The quantitative data for cattle, caprines, pigs, and donkeys show that the 'Ain el-Gedida assemblage (NISP = 400) was dominated by the remains of pigs, followed by caprines and donkeys; cattle bones were relatively rare. When compared to the large assemblage from Area 2 at Amheida (NISP = 1388), the 'Ain el-Gedida faunal collection includes more caprines and donkeys and somewhat fewer cattle and pigs. Both the 'Ain el-Gedida assemblage and the Area 2 faunal collection are dominated by the remains of pigs. The small Area 1 assemblage (NISP = 45), on the other hand, includes more cattle and donkeys and no pigs at all. While the Area 1 assemblage is much smaller than the faunal assemblages recovered from Area 2 and 'Ain el-Gedida, the absence of pigs is still unusual. The bones were recovered from the refuse contexts in the back part of the house; the front rooms of the house were quite clean. However, the depositional context alone does not explain the absence of pigs. The inhabitants of Area 1 were engaged in the trans-Saharan trade, and the choice of animals other than pigs may be consistent with a more mobile lifestyle.

McKinnon has shown that increased pork consumption is characteristic of Roman sites throughout the Mediterranean<sup>7</sup>, and we have argued elsewhere that the high

6 See Lyman 2008 for a full discussion of quantification methods.

7 McKinnon 2010.





4 Dog skull from 'Ain el-Gedida.

proportions of both pigs and chickens seen at Amheida Area 2 may reflect a high-status 'romanised' identity<sup>8</sup>. The high numbers of pigs seen at 'Ain el-Gedida may also indicate a strong Roman identity, even though the inhabitants of the site represent a very different status than that of the villa owner at Amheida Area 2. The higher

## Conclusions

The faunal assemblage from 'Ain el-Gedida is what might be expected from a late Roman agrarian site in Upper Egypt. Donkeys and cattle are likely to have served as working animals, while pigs, caprines, and chickens played a major role in the diet. The site was

populated by commensal animals, including cats, dogs, and rodents. The diet was supplemented by occasional gazelle hunting, but most of the meat was derived from domestic sources.

proportions of donkeys and caprines at 'Ain el-Gedida are probably more typical of rural sites in Egypt. Close examination of the cattle remains from 'Ain el-Gedida suggests that they were primarily working animals. All three first phalanges show evidence for lipping on the proximal joint surface. This pathological condition is likely to be the result of traction, i. e., the use of cattle to pull ploughs and carts<sup>9</sup>. Pigs, on the other hand, seem to have made up a substantial part of the diet at 'Ain el-Gedida, as they did at Amheida Area 2.

Not all the faunal remains recovered from 'Ain el-Gedida were the remains of meals. The remains of commensal species, including a dog, a cat, and commensal rodents, were well represented in the faunal assemblage. A partial cat skeleton was recovered from Room 10, and the remains of a dog were recovered in Room 19. A view of the dog skull is shown in *figure 4*. The dog skeleton included a complete radius with a greatest length (GL) of 160.5 mm. This radius came from a dog with a withers height of about 51.7 cm. Although the 'Ain el-Gedida assemblage produced a substantial number of donkey bones, there is no clear butchery evidence to suggest that they were part of the diet.

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## References of figures

All tables and figures: Author.

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## Abstract

The 4<sup>th</sup>–5<sup>th</sup> century church complex at 'Ain el-Gedida in the Dakleh Oasis, Upper Egypt, was excavated between 2006 and 2008 by Dr. Nicola Aravecchia under the direction of Prof. Roger Bagnall. This church complex is one of the earliest examples known from Egypt to date. Our paper presents a short study of the animal bone remains that were recovered from 'Ain el-Gedida and compares them to the 3<sup>rd</sup> and 4<sup>th</sup> century faunal assem-

blages that were recovered from the town of Amheida (Roman *Trimithis*) in the Dakleh Oasis. The mammal remains were dominated by the remains of pigs, caprines, cattle, and donkeys, but the cattle and donkeys appear to have been working animals. Recent research suggests that the site may have been a Christian agricultural settlement with wage or tenant labour.

## Zusammenfassung

### Faunenreste aus einem Kirchenkomplex aus dem 4. und 5. Jahrhundert in 'Ain el-Gedida, Oberägypten

In den Jahren von 2006 bis 2008 wurde in 'Ain el-Gedida (Oase Dakhla, Oberägypten) von Dr. Nicola Aravecchia unter Leitung von Prof. Roger Bagnall ein Kirchenkomplex aus dem 4./5. Jahrhundert archäologisch untersucht. Es handelt sich um eine der frühesten aus Ägypten bekannten Anlagen dieser Art. Die während der Ausgrabung geborgenen Tierknochen werden hier mit Funden des 3./4. Jahrhunderts aus der nahe gelegenen

Siedlung von Amheida (römisch *Trimithis*) in der Oase Dakleh verglichen. Es zeigt sich die Dominanz von Schwein und Ziegen in der Ernährung, während die Knochen von Rindern und Eseln als Überreste von Arbeitstieren anzusprechen sind. Dies unterstützt die Interpretation des Ortes als christlich geprägte Siedlung mit abhängiger Pacht- und Lohnarbeit.

## Résumé

### Vestiges d'un ensemble d'églises du IV<sup>e</sup> et du V<sup>e</sup> siècle à Ain el-Gedida, en Haute Égypte

Le complexe ecclésiastique des 4<sup>e</sup>/5<sup>e</sup> siècles à 'Ain el-Gedida dans l'oasis de Dakhla en Haute-Égypte fut fouillé entre 2006 et 2008 par le Dr. Nicola Avarecchia sous la direction du Prof. Roger Bagnall. Ce complexe ecclésiastique est l'un des plus anciens d'Égypte connus à ce jour. Cet article présente une brève étude d'ossements d'animaux mis au jour à 'Ain el-Gedida et les confronte aux

ensembles faunistiques des 3<sup>e</sup> et 4<sup>e</sup> siècles collectés dans la ville d'Amheida (la *Trimithis* romaine) dans l'oasis de Dakhla. Les restes de mammifères comprenaient surtout des porcs, caprins, bovins et des ânes, mais les bovins et les ânes semblent avoir servi d'animaux de trait. Des recherches récentes suggèrent qu'il s'agirait d'un habitat agricole chrétien composé de salariés ou de métayers.