Kom al-Ahmer – Kom Wasit I

Excavations in the Metelite Nome, Egypt ca. 700 BC – AD 1000

edited by

Mohamed Kenawi

with contributions by

Cristina Mondin, Michele Asolati Louise Bertini, Audrey Eller, Urška Furlan, Ole Herslund, Israel Hinojosa Baliño, Marie-Caroline Livaditis, Giorgia Marchiori, Marcus Müller, Benjamin T. Pennington and Amy Wilson



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This book is available direct from Archaeopress or from our website www.archaeopress.com

This volume is dedicated to the memory of

Judith McKenzie

expert on Classical architecture, Late Antique Egypt, and the Holy Land 1957 – 2019



Judith McKenzie working in the basement of the Semitic Museum, Harvard University

Judith McKenzie was a distinguished scholar, whose absence will be felt deeply by all in her field. Her primary research interests were the architecture, archaeology, and art of Graeco-Roman and Late Antique Egypt, and Alexandria in particular. She was also an expert on Nabataean art. Her main publications are *The Architecture of Petra* (1990), the *Architecture of Alexandria and Egypt, c. 300 BC - AD 700* (2007), *The Nabataean Temple at Khirbet et-Tannur* (2013), and *The Garima Gospels: Early Illuminated Gospel Books from Ethiopia* (2016), her last major publication.

Judith began working at Oxford University in 1987, where she contributed immensely significant works in the fields of archaeology, art, and religious change in sacred spaces. In 2003, she became the director of the Khirbet et-Tannur Nabatean Temple Project, and in 2012, she, in collaboration with international scholars, established the open-access Manar al-Athar photo archive, one of the world's largest databases of archaeological sites in the Middle East. In 2016, she began her last undertaking as the principle investigator on the project Monumental Art of the Christian and Early Islamic East: Cultural Identities and Classical Heritage.

Judith actively supported many young scholars from all over the world, and provided ideas and guidance for a large number of projects. She was also an excellent mentor to her students and assistants, in both an academic and personal capacity. For this publication and its authors, she provided invaluable advice and reviewed one of its chapters personally.

In 2012, I began working with her more closely on two different projects and later commenced a third project, the documentation of the transformation of sacred spaces. Judith reviewed *Unearthing*

Alexandria's Archaeology: The Italian Contribution and edited several sections of it, in addition to editing most of the photographs in the volume. Without her support, many would never have been able to reach the levels of achievement that they have attained, and for that, and so much more, we owe her an incalculable debt.



Inauguration ceremony for Manar al-Athar in 2012 and the first team, from right to left: Ross Burns, Neil McLynn, Andy Reyes, Judith McKenzie, Jeremy Worth, Tiffany Chezum, Elizabeth Macaulay-Lewis, Sean Leatherbury, and Mohamed Kenawi

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List of Abbreviations

F no: Feature + the feature number

KWO no: Kom Wasit Object + the number of the object in the CatalogueKWC no: Kom Wasit Coin + the number of the coin in the Catalogue (Volume II)

KWC no: Kom Wasit Coin + the number of the coin in the Catalogue (Volume II)

KAO no: Kom al-Ahmer Object + the number of the object in the Catalogue

KAC no: Kom al-Ahmer Coin + the number of the coin in the Catalogue (Volume II)

KAP no: Kom al-Ahmer Pottery + the number of the sherd in the Catalogue (Volume II)

Foreword

I was born in 1944 in *Ezbet Rawadat Al-Mughazi Pasha*, Al-Mahmoudia, Beheira Governorate. Since my early childhood, I have heard that *Kom Al-Kefari*, which was later named *Kom Al-Nasr (Al-Ahmer)*, contains Greco-Roman remains. Many tales were made up by locals about ghosts seen at night on the way from *Kom* to *Ezbet Rawadat Al-Mughazi Pasha* and *Ezbet Al-Mahmoudia*, both owned by Al-Mughazi Pasha, a renowned member of the Al-Wafd Party at the time of Saad Zagloul and Mustafa Al-Nahas.

Following the post-revolution Egyptian Land Reform, I heard of many illegal attempts by farmers to hunt for antiquities in this site.

After assuming the role of the Director of the Bibliotheca Alexandrina in 2017, I met Dr Mohamed Kenawi, who introduced me to his research work, in cooperation with the International Italian Expedition, to study the history and archaeology of this significant *Kom*. The findings of this research will be published in a book documenting the excavations of this remarkable site. I was delighted to learn that my hometown will appear on the archaeological map as a touristic attraction in the near future.

I would like to extend my thanks and gratitude to the editor, researchers, and all those who contributed to this important publication about my cherished birthplace.

Dr Mostafa El Feki Director of the Bibliotheca Alexandrina July 2019

Preface

The excavation results and historical and topographic studies presented in this volume are the outcome of an intensive research programme involving two archaeological sites, the dig laboratory, and the researchers' home universities from 2012 to 2016.

The team is grateful to the Ministry of Antiquities for granting us the necessary permissions to work on the sites, and for facilitating our work with our Egyptian colleagues under the Ministers: Mohamed Ibrahim, Mamdouh al-Damaty, and Khaled El Anani. The Department of Foreign Missions provided the necessary paperwork and much support, and we particularly thank Mohamed Ismail, Hany Abu Alazem, and Nashwa Gaber for their help.

At the Damanhour office we were helped by Ahmed Kamel, Abdel Rehim Ali, Ashraf Abdel Rahamn, Mohamed Ali, and Khaled Farahat. On the sites, we were accompanied by the following inspectors who also provided much assistance: Ra'fat el Gendy (2012); Mohamed Elfaziri, Marwa Abd al Hadi, Eman Mashaly, and Adel Ahmed el Besa (April–June 2014); Emad Abu Zid (September 2014); Ahmed Ali, Mahmoud Elsayed Nada, Ahmed Hassan Abdel Atty, and Mohamed Hussein (2015); and Alaa el-Nahas and Mohamed Younis (2016).

The conservator inspectors who worked with the mission were Zakaria Batisha (2014), Ahmed Amin (2015), and Akram Zakaria (2016). In addition, the engineer Basioni Mohamed Basioni helped us construct the symbolic perimeter wall at Kom al-Ahmer (2016).

Over the course of the five fieldwork seasons the mission trained the following inspectors: Ahmed al-Halawani and Ahmed Naem (2012); Samia Mohamed Faid, Omar Nabil Asabagh, Ahmed Naem, Essam Ragab Abdelgwad, Mohamed Younis Abozaid, Sahar Mohamed Shaat, Eman Mohamed Mashaly, and Shahawy Mohamed Shahawy (April–June 2014); Anter Abd El Rahman and Mohamed El Jammal (2015); and Amir Azoz and Ibrahim Naser Mohamed (2016). The mission also trained the following conservator inspectors: Mahmoud Khatab, Mohamed Khatab, Khalefa Abd Elmaged, and John Eskander (2014); and Nashwa Khalil Mohamed and Mayada Elsaid Rashad (2016).

Thanks are due to the Department of Tourism Police in Damanhour for their efforts to secure our stay. We would also like to thank the Generals Ashraf Mahrous, Ihab Lotfy, Ahmed al-Ganbihy, Ahmed Efet, and Ihab Selim, and others who accompanied us, like Ayman, Shukri, and Karam, as well as many *ghafirs* on both sites like Abdel Latif Khatir.

We rented our houses on a monthly basis from Nazih, Abdel Baset, and Mohamed Ratib. We also received much help from several people in the villages, including Masry (an electrician), Ahmed (a plumber), and Nousa (a cleaner). We are especially grateful to our cook Mohsen Ahmed Gad Zagloul, who provided two meals every day for all members of the mission, including the inspectors and policemen.

Many specialists came from Quft, including Saeed Fekri (2012); Saeed Fekri, Saeed Gharib 'Laurence', and Mohamed al-Saghir (2014); Saeed Fekri, Saleh, al-Shazli Ali, Yehia Farouk, and Hassani Hassan (2015); and Abdu Ahmed Ali, Bakri Badri Mahmoud, al-Shazli Ali, and Saad Ahmed (2016). We would also like to thank the dozens of workers who excavated with the *Qufti* and the members of the mission, especially Gomma Helal, Ahmed Abdel Latif, Karm Gomma, Ibrahim Rgab, Abdu Basioni, Hosam Abdel Moneim, Mohamed Ahmed, Amr Ratib, and Rizq Abdel Aziz.

The mission team included various supervisors, excavators, and illustrators from many different countries. We began in 2012 with a small team consisting of Cristina Mondin, Giorgia Marchiori, Valentina Gasperini (ceramicist), Ilaria Rosetti (archaeologist), Irene Cestari (laboratory), Barbara Rizzo (ceramicist), Virginia Fileccia (archaeologist), and Mohamed Kenawi. In 2013, a short survey took place with Amy Wilson and Natalie Marquez. In April–June 2014, the team expanded when the mission developed a large-scale archaeological dig. Thereafter, our team was composed of many supervisors, including Cristina Mondin (Director), Marcus Müller, Giorgia Marchiori, Tiziana Prezio, and Mohamed Kenawi; and archaeologists who worked both at the sites and in the laboratory, including Maria Lucia Patané, Giulia Marano, Monica Spaziani, Dionisia Pizzo, Carla Vallone, Barbara Cavallaro, Erika Cunsolo, Salvatrice Pantano, Luther Sousa, Sara Cole, Sarah Hitchens, Rim Saleh, Audrey Eller, Aude Simoney, Juliette Fayein (conservator), and Henrik Brahe (photographer). In September 2014, the mission continued its activities with Cristina Mondin, Giorgia Marchiori, Maria Lucia Patané, Giulia Marano, Federica Faro, Jessica Distefano, Flavia di Grazia, Valentina Corsale, Enrico Catalano, Elisa Politano, Irene Cestari, Sarah Hitchens, and Amy Wilson. In 2014,

Israel Hinojosa Baliño conducted a major topographic survey, and Gabriella Carpentiero conducted the geophysical survey of Kom Wasit.

In 2015, the team worked for two months and two weeks, and comprised a larger number of specialists as supervisors, including Cristina Mondin (Director), Giorgia Marchiori, Marcus Müller, Nunzia Larosa, Audrey Eller, Amy Wilson, Ole Herslund, and Mohamed Kenawi. The team also comprised many archaeologists and Egyptologists, including Audrey Eller, Maria Lucia Patané, Carla Vallone, Barbara Cavallaro, Giulia Marano, Jessica Distefano, Mario La Rosa, Federica Faro, Federica D'Asero, Martina Maenza, Elisa Politano, Sara Cole, Mia Čančarević, Haythem Mahdi, Giulia Raimondi, and Graziana Zisa; as well as two architects, Giada Bertoldo and Elisa De Rossi. Henrik Brahe photographed the archaeological units and some of the objects, and Louise Bertini began working on the animal bones. The team also included two numismatists, Michele Asolati (Director) and Cristina Crisafulli, who cleaned and studied all coins found since 2012.

In 2016, the project continued with a large number of archaeologists and specialists in various sciences. Fieldwork took place on the sites over the course of two months. The team included Cristina Mondin, Giorgia Marchiori, Ole Herslund, Nunzia Larosa, and Audrey Eller as supervisors; several archaeologists, including Maria Lucia Patané, Carla Vallone, Barbara Cavallaro, Haythem Mahdi, Bianca Badalucco, Andreas Valentin, Ellen Brzost-Andersen, Mette Lindbo Adamsen, Christian Albér Birkekvist, Christiane Maren Fisker, Sofie Amalie Breum, and Urška Furlan; and two architects, Anna Chodkowska and Marika Mielec. Michele Asolati and Cristina Crisafulli continued studying the numismatic finds. Israel Hinojosa Baliño worked on the topography of the two sites and the photogrammetry of the units, while Amy Wilson worked in the laboratory and photographed many of the objects. Luciana Carvalho contributed to the mission by planning the construction of a protective wall around Kom al-Ahmer, and overseeing the construction of the first 10 metres of the wall. Louise Bertini continued her study of the animal bones, and Benjamin Pennington began conducting a drill auger on both sites.

Nunzia Larosa supervised the excavations of Units 3, 5, and 10 at Kom Wasit; coordinated the bi-dimensional and three-dimensional survey (photogrammetric elaborations); and collaborated in geo-spatial data management (geographic information system) with Giorgia Marchiori and Israel Hinojosa Baliño.

The mission also wishes to thank several people who contributed indirectly to the mission in different ways, such as Essam Barakat (videographer and graphic designer) for many of the object photographs presented in this volume as well as Nada Mahdi for working on some of the photographs and drivers like Ali Gohar, Ibrahim, Ahmed, and Ashraf Abu Taleb. AutoCad traineee Hadir Mohamed drew pottery sherds; Thanks are also due to Mohamed El-Awaad for his support and design of the cover of this volume

The chapters in this volume were reviewed by Mohamed Kenawi, Miranda Williams, and Tiffany Chezum. Proofreading was carried out by Cornelia Römer, Andrew Meadows, and Andy Reyes. Thanks are also due to John Baines for his proofreading of the catalogue of objects.

Finally, thanks are due to the many institutions that contributed in different ways, including Siena University (2012); Padua University, the Italian-Egyptian Archaeological Center, and National Geographic (2014); the Egypt Exploration Society (2015); the Society of Libyan Studies (2014–2015); and the Archaeological Institute of America—Hawaii Branch (2013); as well as the Bibliotheca Alexandrina, the Alexandria Center for Hellenistic Studies, the Italian Ministry of Foreign Affairs, the Italian Embassy in Cairo, and its archaeological section. Special thanks to Giampaolo Cantini, the Italian Ambassador to Egypt, Paolo Sabbattini, director of the Italian Cultural Institute in Cairo, Rosanna Pirelli and Giuseppina Capriotti, director of the Italian Archaeological Center in Cairo, and Cecile Safwat, secretary and administrator of the Italian Archaeological Center, Carmen Giradi of the Plastipak SRL Company donated plastic bags,¹ and the Marchiori family donated T-shirts. Private donations were greatly helpful for certain research, and for the production of this volume. Thanks are due to Luciana Carvalho and Keith Raffan.

Cristina Mondin, Michele Asolati, Giorgia Marchiori, and Mohamed Kenawi

¹ Plastipak. http://plastipak.it/azienda/

Introduction

The Kom al-Ahmer and Kom Wasit Archaeological Project First Phase: 2012–2016

Mohamed Kenawi

From 2007 to 2011, an archaeological survey of 63 sites in the province of Beheira in the Western Nile Delta² was carried out, following a similar survey in 2004–2005.³ The results of these surveys led some scholars and researchers to focus on the hinterland of Alexandria, and to reconsider its importance and historical context with regard to the main ports in the region: Thonis-Heracleion and Alexandria. In 2012–2013, three different missions began working in the province of Beheira: the British Museum at Naukratis, the Japanese mission at Tell al-Dab'a, and the Italian mission at Kom al-Ahmer and Kom Wasit (ancient Metelis). Following the first results of the Italian mission, historians and researchers of the ancient economy began to pay more attention to the region.

fieldwork began at the two largest sites (after Kom al-Ghoraf) in Egypt's western Delta, Kom al-Ahmer and Kom Wasit, to investigate them intensively and reveal their importance. Kom al-Ahmer and Kom Wasit are located 6 km west of the Rosetta branch of the Nile, 35 km south of Rosetta, 40 km southeast of the port of Thonis-Heracleion, and 52 km southeast of the port of Alexandria (Figure i). Given their well-connected location with respect to these Mediterranean and Nile ports, it can be assumed that a significant volume of commercial traffic moved through these sites. Historical sources and Hellenistic and Roman geographers located the capital of the Metelite *nome* in this region, and our research has made it possible to identify the likely location of the *nome* capital, Metelis, at Kom al-Ahmer,



Figure i: Kom al-Ahmer and Kom Wasit in context (Background Images Esri and OpenStreetMap).

² See Kenawi 2014.

 $^{^{\}scriptscriptstyle 3}\,$ See Wilson and Grigoropoulos 2009.



Figure ii: Kom al-Ahmer and Kom Wasit overview (Background Images Esri)

at least during the Roman, Late Roman, and Early Arab periods. This introduction discusses the methods used in recent years to bring to light the vast quantity of information that can be gathered from a Delta site.

Both sites are located within the so-called al-Mughazi fields, which were the focus of a land reclamation project by Mohamed al-Mughazi Pasha in the 1920s (Figure ii). Thanks to these intensive land reclamation projects, the first finds from Kom al-Ahmer and Kom Wasit reached the Graeco-Roman Museum of Alexandria and the Egyptian Museum in Cairo in the 1930s and 1940s. Sebakheen sequentially damaged several different fired brick and limestone structures at both sites; and the Egyptian inspectors Abd el-Mohsen el-Khashab and Labib Habachi conducted intensive emergency excavations in two different areas (Figures iii-v).

In the late 1930s, Al-Mughazi Pasha (Figure vi) founded a small village near Kom al-Ahmer that he named Rawdat al-Mughazi (the garden of al-Mughazi), as part of his development programme within his lands. The village, which lies to the west of Kom al-Ahmer, now has around 3000 inhabitants. After the 1952 revolution, Mohamed al-Mughazi lost the majority of his lands, and

the two archaeological sites came into the possession of the Department of Antiquities. The fields have since been divided among local farmers.

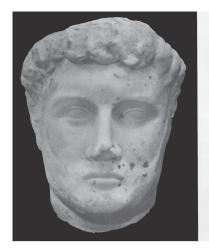
As a result of the land reclamation project by al-Mughazi Pasha and the activities of the *sebakheen*, which disturbed the ancient tells and *koms* in the area, Adriani received some objects in 1935. Although he published one of them, a marble statue dating to the Roman period,⁴ some other important finds that he mentioned were never published due to the Second World War.

In the 1940s, at Kom al-Ahmer, Abd el-Mohsen el-Khashab conducted an excavation that resulted in the discovery of a large Imperial Roman bath complex; Hellenistic, Roman, Late Roman, and Islamic coins, and various other objects, which he published in his book entitled *Ptolemaic and Roman Baths of Kom el-Ahmar.* His were the last archaeological investigations on the site until 2004, when Penny Wilson conducted a one-day survey, and 2008 when the author conducted a three-

⁴ Adriani 1940: 163.

⁵ El-Khashab 1949

Figure iii: Kom al-Ahmer, marble Roman portrait (based on Adriani 1940, p. 163, Pl. LXXIII)





Fichier - Catalogue

Inv. No.2.392.7

Date 1935.

Prov. Kom-el-Ahmar (Béhéra).

Botti. "Notice" N. "Catalogue" N.

Colloc. Salle No. XII. Vitrine A.5

Description Petite tête ptolémaique, probablement portrait d'un roi. Marbre. Haut. Om200.

Trouyée par un gardien de Sebbakh à Kom-El-Ahmar.

Bibliographie partie partie casses

Figure iv: Kom al-Ahmer, part of the sebakheen Finds in 1935s (Adriani Archive, Palermo University)

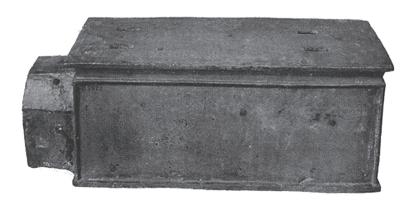


Figure v: Kom Wasit, a tunnel in bronze found during the *sebakheen* excavations (based on Brunton 1947, p. 295, figs. 45-46)

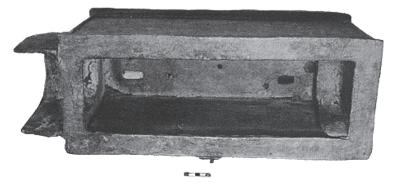




Figure vi: Mohamed al-Mughazi Pascia (based on an Egyptian newspaper)

day survey. The surveys provided a general idea of the state of the site, as well as possible dating based on surface pottery finds (Figures vii–x).

At Kom Wasit, Labib Habachi carried out a similar short-time investigation in the 1940s after the *sebakheen* found dozens of bronze statuettes. Habachi discovered the remains of a Hellenistic *tholos* bath complex⁶ and of a bronze tube-shaped object, probably related to the oracle of a temple. Both finds were published in a brief report only. The same kind of neglect occurred at Kom Wasit until the 2004 and 2008 surveys. Thanks to the last two surveys, more attention was paid to this area, and an advanced project began at both sites in 2012.

Our reasons for and aims of working in this area are various and include the lack of information from any recent excavation of a Hellenistic-Roman site in this region. With the exception of the German project at Schedia (not yet fully published), and excluding the historical excavations at Naukratis, no excavation or even detailed study has investigated a Hellenistic-Roman site in the entire modern province of Beheira. Therefore, this project aims to carry out a deep and intensive investigation of the Hellenistic-Roman settlements of Kom al-Ahmer and Kom Wasit using a multidisciplinary approach. It also provides a good

⁶ Habaci 1947: 285-287.

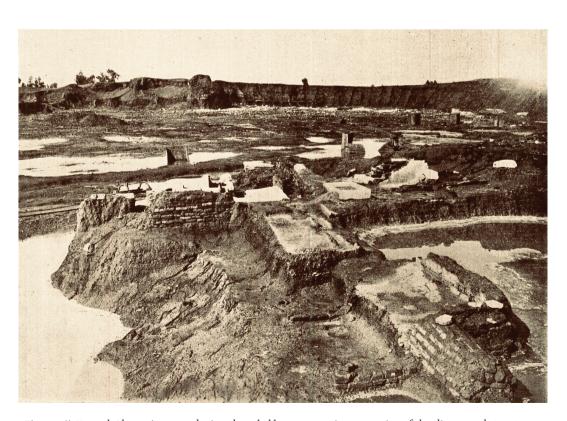


Figure vii: Kom al-Ahmer in 1940s during the *sebakheen* excavations, remains of the discovered structures appear (based on Elkhachab 1949, Pl. IV)



Figure viii: Kom al-Ahmer in 1940s During the *sebakheen* Digs (based on Elkhachab 1949, Pl. I)



Figure ix: Kom al-Ahmer in 1940s During the *sebakheen* excavations (based on Elkhachab 1949, Pl. IV)



Figure x: Kom al-Ahmer in 1940s during the *sebakheen* excavations (based on Elkhachab 1949, Pl. VI)

example of a young mission that has been working long seasons in the field for several consecutive years, and has published regular reports as well as its first volume, including part of the results from the first four years of fieldwork. The accomplishments of this mission include historical research on the ancient toponym of the settlement, historical research on the nearby Lake Edkou, a topographic survey, a geophysical survey, drill auger, aerial photography, and excavations of different parts of the settlements, followed by the study of the materials, part of which are presented in this volume. The second volume contains a corpus of pottery from Kom al-Ahmer and the coin finds from both Kom al-Ahmer and Kom Wasit.

Archaeological research methods used at Kom al-Ahmer and Kom Wasit

Historical research

The Italian-Egyptian Archaeological Project in the western Nile Delta began its investigation of the region with an intensive historical study of the province, gathering all relevant Greek, Latin, Arabic, and Medieval texts and maps. The researchers focused on the name Metelis in all sources—later identified as Melig in Coptic sources, and Melidis-Mesil in Arabic sources (discussed in detail by Eller and Kenawi in Chapter 1). The historical sources led us to estimate that the city was last occupied in the 12th century AD. Next, our research extended to the nearby Lake Edkou to determine its function in antiquity and whether it was ever used to transport goods-all mentions of this lake are collected and discussed in Chapter 2 by Livaditis. We also collected maps from different periods to study the topographic changes in the region and the movement of waterways. As a result, we discovered the following important pieces of information: Metelis (the Roman name of the capital) first appears in the Early Roman period and is found in one inscription and seven papyri. Moreover, the capital was located between the Rosetta and Canopic branches of the Nile. Therefore, the city must have been located at one of three sites: Kom al-Ghoraf, Kom Wasit, or Kom al-Ahmer. As Kom al-Ghoraf was excluded on the basis of archaeological data, the capital was probably initially located at Kom Wasit before later moving to Kom al-Ahmer. The city remained in use until at least the 12th century AD, and was mentioned under the name Metelis from the Early Roman period.

Different maps show the sites during the land reclamation processes in the region and present different variations of names and extents. In the 1866 al-Falaki map (Figure xi), the two sites appear on the shores of Lake Edkou under the names *Com el nasr* for Kom al-Ahmer and *Com wastani* for Kom Wasit. The Arabic meaning of the two names is 'the village of the victory' (*Com el nasr*) and 'the village in the middle' (*Com*

wastani). The latter (Kom Wasit or wastani) probably refers to its position in between Kom al-Ahmer (or el nasr) and Kom al-Ghoraf (or arfe) on the same map. Although different sites appear in the area, these were, unfortunately, never subject to formal archaeological investigations until today.

On the 1914 map (Figure xii), the two sites appear at the edges of swamps, and the lake limits receded. On this map, we can see the first signs of the land reclamation and the digging of new canals to cultivate the area. The two sites appear as *Kom EL NOS* or 'the *kom* of the half' (Kom al-Ahmer), and *Kom El NOS EL SAGHIR* or 'the *kom* of the small half' (Kom Wasit). Both sites appear to their full extents, before their boundaries were damaged, and are both double the size seen today in the fields. No modern villages had been established as of 1914.

In the 1934 survey map (Figure xiii), more details appear and the current names of both sites are drawn for the first time: El Kom el Ahmar for Kom al-Ahmer and Kom el-Wist for Kom Wasit. Fields appear to the south and east of Kom al-Ahmer for the first time, while no fields are yet seen around Kom Wasit. The latter appears longer in shape, and it reaches the border of the drainage canal called Kr Amlit Drainage. Today, half of the extent of the site has been lost beneath the fields. Although no village is yet present in this map, one structure appears to the south of Kom al-Ahmer, providing evidence of the earliest modern structure in today's village. The name that appears in 1914 is still present, as the fields south of Kom al-Ahmer are named Ezbet Kom el Nuss. This name later became al-Nasr for a nearby village.

In 1950, a map of the region was published in Arabic. In it, the two sites appear surrounded by modern fields. Kom al-Ahmer appears in Arabic under the name الأحمر while Kom Wasit appears as كوم الوسط. A small village appears to the east of Kom al-Ahmer, while no houses yet appear around Kom Wasit, which had at this point lost a large part of its original area (Figure xiv).

In 1960, Corona Satellite images provided a good early aerial view of the two sites. By this time, both had already suffered from the digging of the *sebakheen*, and their boundaries were similar to those observed today. At Kom al-Ahmer, the village of *Ezbet Rawdat al-Mughazi* was located to the southeast of the site. There is no trace of any structure on the site nor does the modern cemetery appear on the highest part of the eastern portion of the *kom*. At Kom Wasit, three houses appear on the eastern edge of the Kom and a few more along the drainage canal (Figs. xv-xvi).

Archaeological methods applied at the sites

From the very beginning, when fieldwork commenced at the two sites, we worked to apply the highest standards

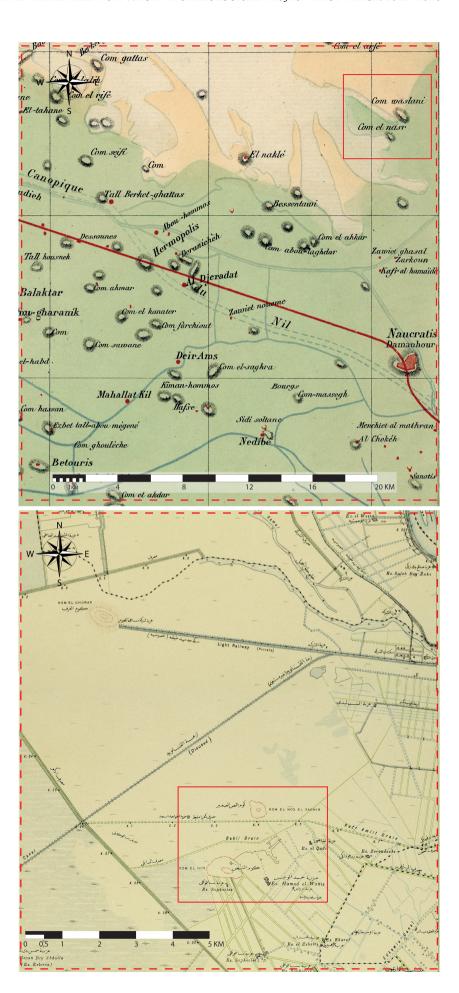


Figure xi: Mahmoud al-Falaki 1866 map showing the location of Kom al-Ahmer and Kom Wasit.

Figure xii: 1914 topographic map showing the location of Kom al-Ahmer and Kom Wasit



Figure xiii: 1934 Topograhpic map showing the location of Kom al-Ahmer and Kom Wasit

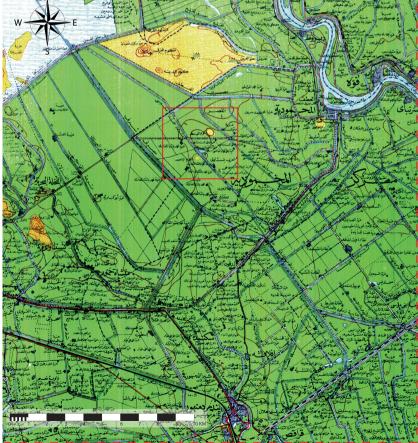


Figure xiv: 1950 Topographic map showing the location of Kom al-Ahmer and Kom Wasit

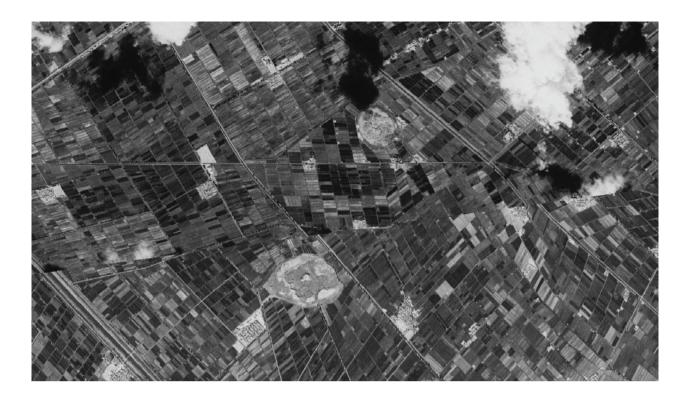


Figure xv: Corona image of Kom al-Ahmer and Kom Wasit in 1960s

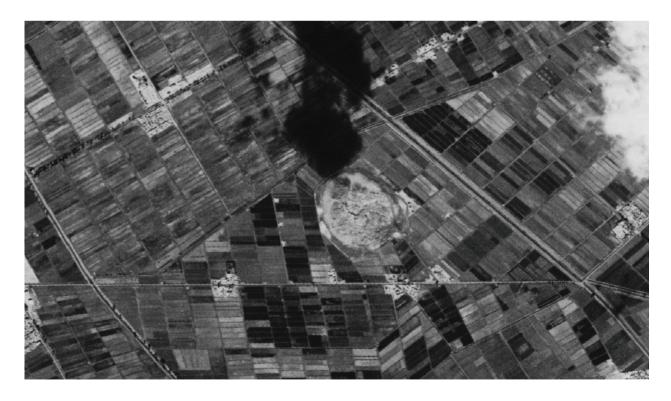


Figure xvi: Corona image of Kom Wasit in 1960s

possible for a mission with a medium amount of funding. Work was organised on a large scale at both sites with a sizable number of archaeologists and local workers. In addition to the traditional approaches of excavating areas, photographing features, and studying materials, the project commenced its second year with a complete topographic survey of the two sites (discussed in this volume by **Hinojosa Baliño** in Chapter 3), a geophysical survey, and aerial photography. This provided us with a complete plan of the two sites, and enabled us to choose where to work based on these data. In 2012, we selected excavation units at the highest part of Kom al-Ahmer (Unit 1) to determine the last date of occupation according to the archaeological finds (discussed by Kenawi and Marchiori in Chapter 12 and Chapter 13). In 2014, a second unit was opened at the highest part of the central mound for the purpose of gathering more data. As a result, we determined the last date of occupation from the presence of Islamic glazed pottery, which dated to the 9th-11th centuries AD. Combined with the historical data and our other results, the data gathered from Units 1 and 2 at Kom al-Ahmer strongly indicated that this site was Metelis (Figure xvii).

In September 2014, two more units were opened at Kom al-Ahmer. Unit 4, which is located beside the Imperial Roman bath at the middle elevation of the site, was selected on the basis of the aerial photographs taken in April 2014, in order to investigate a new section of the site. Fieldwork at Unit 4 continued throughout 2015 and 2016. Data from Unit 4 (identified as a Late Roman house and amphora storage building) dated this part of the site to the 4th-5th centuries AD (see Marchiori, Chapter 11). The house and commercial storage building in Unit 4 produced a large number of bronze coins (over 1000 in total), making it necessary to engage numismatists. Michele Asolati and Cristina Crisafulli studied all of the coins found at both sites (1400 in total, of which 1071 are presented in Volume II). The coins, which ranged from the first series of Ptolemaic coins bearing the bust of Alexander the Great to those of Emperor Heraclius, revealed that the site was occupied for a very long time.7

Unit 5 was opened at the lowest part of Kom al-Ahmer in September 2014, and work continued throughout 2015 and a few weeks in 2016. This area was selected to try to determine the foundation date of the site. From data gathered from Unit 5 (including fragments of painted Greek pottery and a terracotta figurine), we were able to date the lowest layers to the 5th century BC. Work in this unit stopped when the archaeologists hit the water table, which prevented us from reaching the most ancient layers of the site. However, drill auger work in this unit revealed that archaeological materials



Figure xvii: Kom Wasit, view from above in 2014

are present at least 3 metres (m) below the water table, possibly going back to the foundation date of the site, which had not been precisely determined until now. Unit 5 is not presented in this volume as work still in progress.

The study of pottery concentrated on vessels from Kom al-Ahmer. All pottery sherds have been collected, cleaned, weighed, and studied. In Volume II, the study of the pottery coming from Units 1, 2, and 4 is presented in detail. Over 40,000 fragments have been studied and 1300 types have been identified

Thus, the archaeological materials at Kom al-Ahmer enable us to date the occupation of the site from the 5th century BC to the 11th century AD, a very long range for a site in the Delta.

Kom Wasit

In 2012, a survey took place over the course of a few days at the adjunct site of Kom Wasit, where some surface structures were mapped and documented. Due to the complexity of the site and the presence of a non-surface structure, we decided to approach this site using more sophisticated methods, which we later applied in part at Kom al-Ahmer.

 $^{^{7}\,}$ All coins are discussed in the second volume: Kom al-Ahmer-Kom Wasit II.

In 2014, Gabriella Carpentiero conducted a geophysical survey of the entire site over the course of three weeks. This was followed by hundreds of aerial photographs and an intensive topographic survey. Combining these different methods provided us with an orthophoto of the entire site that revealed the remains of an entire city beneath the Nile silt. We located hundreds of Hellenistic houses, a temple, a Greek-style tholos bath, and a structure probably related to a port on the Nile. As a result, the Ministry of Antiquities declared the discovery of an entire Hellenistic city. The mission used these data to select the best location for the excavation units; the first of these, opened in 2014, was found to contain the corner of a temple enclosure wall (see Chapter 8 by Müller and Kenawi). Finds from unsealed layers were mixed with Byzantine and Hellenistic materials.

In 2015, over the course of three months of fieldwork, seven excavation units were opened to gather more detailed information. During this campaign, the team excavated 72 m of the mudbrick enclosure wall of the temple, the temple entrance, and, in Unit 4, at a depth of 16.1 centimetres above sea level, the floor of an earlier structure beneath the temple. Units 3 and 5 were opened to clear the temple entrance, which was found easily thanks to the geophysical survey. In 2016, work moved into two new areas at the highest elevation of the *kom*, where a unit measuring 15 x 15 m was opened. This led to the discovery of the remains of a large tower house (discussed in this volume by **Herslund** in Chapter 5), and a *tholos*-style Hellenistic bath complex dating to the 2nd century BC (Unit 10, not discussed in this volume).

Topographic survey

In 2014, an intensive survey lasting almost three months was carried out. The survey concentrated on the two sites and the area in between to produce a topographic plan of both, identify the contour levels, and understand the underground waterways. The work was conducted using a laser total station Trimble 3305 DR, and a Leica T1610. The excavated units' borders, features, and all finds from both sites were recorded using points, which allowed us to produce innovative distribution plans of the different areas, especially with regard to the coins found in Unit 4 at Kom al-Ahmer.

Geophysical survey

The main aim of the survey, conducted by Gabriella Carpentiero in 2014, was to map the topography of Kom Wasit and the urban organisation of the town to identify possible road networks, blocks, wall circuits, and the extent of the settlement. Data were acquired using the Fluxgate Gradiometer FM256 (Geoscan Research Ltd). An area of 7.5 hectares was investigated by dividing it into a regular grid of 188 squares measuring 20 x 20 m each.

Measurements were taken with a sample interval of 0.25 m and a traverse interval of 1 m, yielding a total of 300,800 readings.

The results of this survey permitted us to identify the remains of a complete city beneath the Nile silt at Kom Wasit. Unfortunately, this type of survey was not suitable at Kom al-Ahmer due to the presence of a large quantity of metal rubbish on the surface that would have distorted the readings.

Aerial photography

Following the topographic and geophysical surveys, a set of aerial photographs were taken over both Kom Wasit and Kom al-Ahmer in 2014. These were later used to create an orthophoto of the entire site. Data were inserted into a geographic information system overlapping the geophysical results, and the topographic results produced a complete image of both sites, with a clear overview of all underground structures at Kom Wasit. These results yielded an unexpected level of visibility. Furthermore, in 2015 and 2016, orthophotos were created using hundreds of photos of the excavated units and structures that had been taken using a Ricoh GR II water tube (12 m long).

Excavating units ('It is not what we find but what we find out')⁸

The excavated units were designed based on various research questions, as well as what could be seen using geophysics and the orthophotos. The surface finds from each unit were noted and collected, but the surface soil was not sieved. All objects were collected and kept at the mission storage facility, which we have been renting from a local farmer since 2012. Pottery, glass, bones, worked bones, shells, coins, bronze objects, charcoal, and all objects such as lamps, amulets, and terracotta figurines have been registered each year and transferred to the state storage facilities. Each found object was collected separately in a bag made of plastic or other appropriate material and provided with an identification number, while pottery, glass, bones, and charcoal from each feature were assigned one number per bag for the entire feature. Each bag's identification information was provided twice, once written on a paper and inserted inside the bag, and once on the bag itself using permanent marker, using the following format:

> Kom al-Ahmer 2016 Unit 4 Feature 4102 Bag number: 2016-412 Material: bronze coin

⁸ I have borrowed these words from our conservator, Luciana Carvalho (Oxford University).

Materials were transported daily to the local laboratory and study facility where they were sorted, cleaned or washed, photographed, and divided into category boxes. All of the objects were measured, and weighed as necessary. At the end of each campaign, objects selected by the mission and the main inspectors were registered and transported to the state storage facilities in Alexandria, Buto, and Tell el-Yahoudia.

The team took photographs from different positions, both before excavating any features and at the end of the excavation of each feature. More detailed photographs were taken when necessary for particular elements of the feature during excavation.

Luciana Carvalho conserved some objects, and Juliette Fayein carried out tests for the conservation plan of the Imperial Roman bath complex at Kom al-Ahmer. Luciana Carvalho also built a symbolic protective wall 10 m long in 2016; the wall was built re-using plastic water bottles. Samantha Tistoni decorated it with paintings in 2017.

This volume presents part of the results of the archaeological mission at Kom al-Ahmer and Kom Wasit between 2012 and 2016. The mission worked on the sites for a total of ten months. The materials published here are only part of a significant amount of materials, the rest of which are still under study. The mission continued its investigations through 2017, 2018, and 2019 but the results of those seasons are not discussed here.