CHANGING LIFE IN EGYPTIAN ALEXANDRIA
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The testimony of the Islamic cemetery on Kom el-Dikka
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PEETERS
LEUVEN – PARIS – BRISTOL, CT.
2021
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ACKNOWLEDGMENTS

The study, to which I have added a small part of my own research, is based on the achievements of three generations of researchers working at the Kom el-Dikka site in Alexandria and a host of others not directly associated with the day-to-day activities of the Polish–Egyptian Archaeological and Conservation Mission from the Polish Centre of Mediterranean Archaeology University of Warsaw in Alexandria.

My deepest gratitude is to Dr. Grzegorz Majcherek, head of the mission, for facilitating my research on the Islamic cemetery on Kom el-Dikka and his generous guidance without which my understanding of the topic would have been much more superficial. It was his advice that led me to question the established three-phase chronology of this burial ground. His meticulous reading of the original PhD dissertation and his pointed remarks have improved the work in many respects. I am equally indebted to Emanuela Kulicka for sharing with me her experience of the excavation of the cemetery in recent years. Several scholars working on material from the Kom el-Dikka excavations have also helped in the research for the PhD dissertation that is at the core of this book. The Late Dr. Małgorzata Redlak led me to an array of bibliographic sources that ensured a solid base of knowledge in the early stages of the work on the archaeological and historical aspects of this study. Plans and drawings made available by Dr. Barbara Tkaczow filled quite a few gaps in the collected documentation.

I would like to thank Iwona Zych and Szymon Maślak for reading early drafts of the text on the division and chronology of the cemetery; their remarks were invaluable for clarifying this part of the work. The English-language version of the text has also benefited from the well-considered editorial advice of Iwona Zych and her remarks that helped the author to avoid many traps of a language that is not his native language, as well as of a purely narrative nature.

I am also deeply grateful to the management and staff of the Polish Centre of Mediterranean Archaeology in Warsaw for their generosity and support through the long process of writing the dissertation and preparing the present book for publication. A PCMA UW documentation scholarship to Urszula Okularczyk and her conscientious work speeded up significantly the digitizing of the original source data.

Prof. Karol Piasecki is to be thanked warmly for trusting the author to start research on the Kom el-Dikka material in the first place. I would also like to thank Wiesław Więckowski for his generous assistance and advice even before he undertook to participate in supervising the author’s doctoral dissertation.

Not the least, the authors of free software have their share in the preparation of this work. Without their involvement, their efforts and the willingness to voluntarily share the effects of their work with others this study could have never taken the shape it has.

Last, there is my family to thank. My dedication to this scientific research was not even half as great as the sacrifices that were their share daily over the course of the writing of this book.
REFERENCES

ABBREVIATIONS

AJPA American Journal of Physical Anthropology
ASAE Annales du Service des Antiquités de l’Égypte
BSAA Bulletin de la Société archéologique d’Alexandrie
EtTrav Études et travaux
PAM Polish Archaeology in the Mediterranean

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INTRODUCTION

Attracting the attention of travelers, scholars and conquerors ever since its establishment in 332 BCE, Alexandria ad Aegyptum has sustained a mythical appeal for generations (Fraser 1993: 93–94; Haas 1997: 8). Literally next to Egypt, but not part of it, it was the best known city of this name, profiting the most from the legend of its titular founder, Alexander the Great (Haas 1997: 7; Saunders 2007). It became one of the most important focal points of European interest in the area after Napoleon’s expedition returned Egypt to the Western world. This interest was channeled to the pre-modern history of the city which—judging by the bulk of popular publications—ended with the Arab conquest. In consequence, little research has been devoted to the following Islamic period. This study goes beyond that turning point but it still refers to earlier times, especially to the period referred to here interchangeably as “late antique” and “Byzantine”, which started in Alexandria with the division of the Roman Empire in 395 CE. Regardless of which adjective is used (“ancient” and “Roman” is also used in this volume for the periods, respectively, from the foundation of the city about 332 BCE, and from its capture in 30 CE), they refer to a time before the Arabs took the city in 642 CE. While there is no general consensus regarding the periodization of the history of Egypt after the Arab conquest (Schick 1998: 80), the author has opted to follow a broad dating of the early Islamic period suggested by published archaeological finds from various Islamic regions (e.g., Francis 1989: 21; Freestone 2006; Kucharczyk 2015: 74). This period (which is referred to as medieval only in relation to the European Middle Ages), ends after the Ayyubids with the transition to the Mamluk period, which terminated in 1517 on the eve of the coming of Ottoman rule to Egypt. When they arrived, the Ottomans found Alexandria in ruin and almost completely abandoned (Kubiak 1998: 19). The city rose again but not before the 19th century.

The discovery and exploration—in the 1960s and 1970s—of medieval houses and a vast burial ground within the district of Kom el-Dikka in downtown Alexandria was an exemplary exception to the general rule of avoiding exploration of early Islamic layers considered as being of secondary importance to the historically earlier depositions (see e.g. Sijpstain 2007: 438) that were the prime focus of most researchers. The obvious benefit of such an approach is a minimization of costs of exploring remains not directly related to the main object of study. An additional factor that has weighed heavily on the exploration of funerary remains from Islamic layers is the question of potential ethical issues (A. Petersen 2013: 253; Macklin 2004: 1, 2, 19-25). Coupled with the shortcomings of indigenous archaeology, especially in terms of resources, this has resulted in a generally underdeveloped state of the archaeology of Islam, especially in the eastern Mediterranean where there is an abundance of spectacular finds from earlier periods. The excavations, carried out since the 1960s by a Polish–Egyptian Archaeological and Conservation Mission from the Polish Centre of Mediterranean Archaeology University of Warsaw, fall well within this description, the focus being from the start on the remains of Graeco-Roman Alexandria. However, the historically later depositions were treated with no less conscientiousness and the project, now entering the seventh decade of continuous archaeological exploration, has produced extensive data
largely questioning the commonly repeated (with notable exceptions, M. Frenkel 2014: 5–6) stereotype of Alexandria as a gradually depopulated and shrinking metropolis after the Arab conquest in the mid-7th century CE.

The data set from the Kom el-Dikka early Islamic burial ground now consists of nearly 1000 explored graves and more than 2500 individuals examined up to bioarchaeological standards. More numerous series of Islamic-age burials that can be assigned to a Muslim population exist, e.g., 4500 individuals buried in Écija in southwestern Spain (Pomeroy and Zakrzewski 2009: 51), but so far bioarchaeological analyses have been published of only a few dozen of this number (Inskip et al. 2019; Pomeroy and Zakrzewski 2009; Cashmore and Zakrzewski 2007). Conversely, nearly 900 Bedouin burials from the famous site of Tell el-Hesi near Gaza have been subjected to bioarchaeological analyses (Eakins 1993; Toombs 1985). By all standards, the Kom el-Dikka sample is a substantial, indeed the most numerous Islamic skeletal series available from Egypt, and, despite the gaps in the record, a promising study set for bioarchaeological studies.

Earlier presentations of this set of data have largely avoided discussing the historical and archaeological context of the finds. To date, the most comprehensive study using the material from Kom el-Dikka was a volume on the stature of the medieval inhabitants of Alexandria, published in 1985 by Elżbieta Promińska. The reports on the skeletal material that have appeared since then have focused on specific parts of the cemetery, without attempting a holistic approach (e.g., Rysiewski 2000; Mahler 2007; 2012). In view of new data from the examination of hundreds of burials and skeletons accumulated since the 1980s and the expanding potential of osteological research fueled by advances in methodology and the growing understanding of the role played by medieval Alexandria in Islamic Egypt, the author felt it warranted to undertake a comprehensive review of the material.

Popularization of personal computers and the exponential growth of their computational power allowed easy and very cost effective application of analytical and statistical tools introduced by advances in computer software. Their use in the analysis of this archaeological skeletal series promised to give a more comprehensive picture than that evoked in the published works to date. Modern IT tools which ensure relative ease in the exploration, transformation and visualization of data, supported by statistical tools permitting dynamic change of parameters, equally simple for small and large data sets, have also given greater freedom in exploring tracks that would otherwise have been considered as unpromising. Study limitations, foremost the labor intensity of comparisons prepared by hand, presumably dissuaded earlier researchers from dealing with more than one aspect at a time, be it age-at-death (Promińska 1972) or stature (Promińska 1985).

A firm basis for studying aspects previously excluded from the investigation was created when the published data sets from more than half a century of exploration and anthropological analyses (see Chapter 3.2 for bioarchaeological sources), even if compromised by poor preservation of the skeletal material, were considered in conjunction and supplemented with unpublished data. Access to these observations, coupled with an array of methods from the fields of archaeology and human osteology, prepared the ground for a new comprehensive and multi-faceted analysis of the available data. The study has looked at the changing living conditions of an urban population from the perspective of data to be gleaned from the burials in the Kom el-Dikka cemetery, reflecting indirectly on the social and cultural realities of Alexandria in one of the least well known periods of its history; at an early phase of Islamic domination.
Study structure

The study is structured in a complementary way, the primary osteological part of the research drawing on a detailed examination of the archaeological evidence. To ensure clarity of presentation, the bioarchaeology has been separated from the history and archaeology. This approach was dictated by the different and uneven data sets emerging from the long period of research.

The first part contains a description of the cemetery, preceded by a discussion of the socio-historical setting of the site and the transformation of the city under Arab rule. The emergence of the burial ground, its changing extent over the ages and its phasing are discussed, marshalling evidence from historical and archaeological sources. This has been coupled with a reexamination of standing cemetery chronology, essentially putting into perspective the results, minor and major, of the osteological studies presented in the second part.

The bioarchaeological section brings together data on the skeletal material and dentition, including historical osteological research as well as the author’s own investigations completed over the past dozen years or so. The description of a historical population emerging from the analysis is subsequently examined for evidence of changing living standards in Islamic Alexandria over the ages. This part is independent of the first, applying different research methodologies to a different set of sources, and arriving at conclusions of a different kind. In confrontation with the results of the historical and archaeological parts, the discussion of the bioarchaeological analyses generates a credible picture of the changing conditions of life in Alexandria during a period of a growing dominance of Islam in Egypt between the 9th and the 12th century.

Data acquisition and processing

The most demanding element of this study was the unification of a set of excavation data coming from more than half a century of excavations, even if the section of the work constituted by the Islamic cemetery on Kom el-Dikka could be considered as relatively narrow. The challenge was magnified by the need to use research tools not applied before to understand, or at least to ensure that there is a chance to understand, the spatial relationship of burial features in the cemetery.

Visualization was the first step, even if only in the form of an ordinary plan, like Fig. 8 below, but supplemented with information that could not be presented in the printed plan of the whole site. The visualization prepared using QGIS software was limited to two dimensions and models of tombs were made as simple as possible. The idea was to produce an interactive plan of the cemetery, in which selecting a tomb structure would bring up the related data set from the catalog. It facilitated both the data acquisition and subsequent analysis, but for the purpose of the current publication only non-interactive views of a plan and the plain data were deemed essential.

The database structure prepared for the present study included more fields than the cleaned and verified fields presented in the attached catalog (see below). The first version included separate tables for data from plans, catalogs, journals, anthropological analyses and published list. Information tended to be repeated and was sometimes contradictory. The data were unified as far as possible and combined in the same way as card catalogs, creating a set of relationships linked
by index numbers. An effort was made to separate the presentation layer (GIS site plan) from data other than that required for the visualization, because of the inherent problem of gaps in the documentation. In effect, the number and inventory markings of the graves on the plan do not necessarily match those from documents of a different type.

The process of data acquisition was shaped by the nature of available sources, chiefly plans and sketches. Numbers and locations were read from the paper plans, as was also the data to describe the structure of each digitized burial feature. The underground and aboveground parts of the tomb were treated separately from the start, while retaining the possible relations between them. A grave, or rather a grave unit, was considered as consisting of no less than one underground feature and in the case of no information on an underground feature, then at least a single superstructure. Ideally, a single grave consisted of a grave box underground and a superstructure aboveground. Whenever subterranean structures were composed of more than one feature, it was necessary to decide whether the features identified in the documents belonged to separate graves or represented different features of the same grave. A further difficulty that did not compromise the process as such were the different numbers sometimes assigned to the underground and aboveground structures, even if the two were undoubtedly connected.

Much attention was accorded to the process of scaling and positioning of the features in relation to the architecture around them. Altogether 81 different plans with tomb structures from the different sectors of the cemetery were superimposed on an excavation plan of the late antique architecture (including architectural remains from earlier phases of occupation in the so-called Theatre Portico and in sector U). Wherever sources were lacking, especially in the case of sectors W1 and L2, considerably less detailed collective plans were used to fill in the gaps in the grave records (Tkaczow 2000: Pls XIV–XV). The gaps that became apparent after the inclusion of all of the extant sketches [Figs 24–27] were interpreted in keeping with the available documentation and existing publications, consulting specific instances with the long-time head of the excavations, Grzegorz Majcherek from the Polish Centre of Mediterranean Archaeology University of Warsaw. The plan also includes the so called Tulunid defense wall, running in the immediate neighborhood of the excavation site, as well as the antique street network around it. The reason behind this is that tombs of a form and foundation level that made them a likely continuation of the Islamic necropolis from Kom el-Dikka had been discovered there in trenches dug on the occasion of a number of archaeological salvage projects (Tkaczow 2000: Pls XIV–XV).

In the rare instance of a published version being available beside the original documentation, the two sources were compared in order to eliminate potential errors. The published versions were deemed more trustworthy, the assumption being that excavators were apt to critically review plans for publication. The informative value of these images, which are of key importance for the overall site plan, varied. Nonetheless, the choice of a simplified model of illustrating tomb features, reduced to polygons encircling the remains of every grave feature, which is the simplest form in this case, enabled even the poorest of these images to be included on equal terms in the output set.

The next step was to add data from other collections. For each element, it was like a new layer being superimposed on the existing resource, verifying existing records and creating new ones, albeit devoid of graphic representation in the GIS part of the base. When merging the osteological
and archaeological data, the archaeological data was supplemented with information from grave
descriptions accompanying the analyses published by anthropologists (Dzierzyk-ray-Rogalski 1962;

The attached catalog presents the data used in this book and should be considered as the most
up-to-date version of the available documentation. It can be accessed upon justified request.
A project to publish the GIS database of the cemetery is currently underway.