The present publication follows Volume I of 1984 that presented the results of a comprehensive archaeological investigation of two tumulus cemeteries of the Late Roman and Early Byzantine Period (third–fifth centuries AD) explored by the Czechoslovak Institute of Egyptology (Charles University in Prague) in the scope of the UNESCO-organised salvage campaign called for in advance of the ultimate submersion of Nubia by the waters of the High Aswan Dam. This Volume II evaluates the human skeletal remains of 538 individuals from the completely explored cemetery at Wadi Qitna (456 tumuli) and a comparative sample of 35 individuals from the near-by cemetery at Kalabsha-South (19 tumuli) from the point of view of social, cultural and physical anthropology. It provides the evidence of their social structure as well as an insight into the life of the people and their family relationships. A comparison of the physical-anthropological features of the community with other contemporaneous and antecedent series using univariate and multivariate methods reveals their mutual position. The final chapter provides a brief overview of the history of the northern part of Egyptian Nubia and an up-to-date report on the handmade pottery found in large numbers at Wadi Qitna and Kalabsha-South, whose distribution has since been attested at many sites in the Nile Valley, on the Red Sea coast and in the Eastern Desert of Egypt and the Sudan. The volume touches upon the complex social and ethnic processes that were taking place in the frontier region between Egypt and Nubia during the critical centuries separating the Antiquity and Medieval Period and opens paths to their further research.
Eugen Strouhal (24.01.1931–20.10.2016) graduated from the Charles University in Prague in both medicine (in 1956) and archaeology (in 1959). After three years of teaching at the Faculty of Medicine of the Charles University in Plzeň (the native town of the famous Czech/British Egyptologist Jaroslav Černý), he became a member of the then Czechoslovak (now Czech) Institute of Egyptology at the Faculty of Arts of the Charles University in 1961. Since that time, for more than forty years, he actively participated in the archaeological excavations in Egypt, be it in Nubia, Abusir, Saqqara and some other places, and in publication of their results. In his research, he concentrated mainly on the physical anthropology, with a special interest in palaeopathology – he was one of the founding members of the international Paleopathology Association. In 1969, he founded the Department of Prehistory and Antiquity of the Near East and Africa in the Náprstek Museum of Asian, African and American Cultures (part of the National Museum in Prague), that he headed until 1993. Here, he not only organized a series of exhibitions on ancient Egyptian art and culture, but also started a number of research programmes, the most important among them being perhaps a thorough X-ray examination of ancient Egyptian mummies from the Czechoslovak collections (in cooperation with Prof. Luboš Vyhnanek). From 1993, until his retirement in 2004, he headed the Institute for History of Medicine at the First Faculty of Medicine of the Charles University. Eugen Strouhal was a brilliant and prolific scholar, author or co-author of almost twenty monographs and about 400 papers, not to mention his more popular books; one of them – The Life of Ancient Egyptians – has been translated into at least eight languages and appeared in many editions throughout the entire world. At the same time, he was an excellent teacher, remembered by several generations of students in the Czech Republic and Egypt.
WADI QITNA
AND
KALABSHA–SOUTH
Late Roman – Early Byzantine Tumuli
Cemeteries in Egyptian Nubia

VOLUME II
Anthropology

By
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Front cover: Excavation of one of the tumuli in a dominant position overlooking Wadi Qitna (photo by Eugen Strouhal)
Back cover: View of the mouth of Wadi Qitna and the village of Nag’ Wadi Siyala el-Gibli prior to their submersion by the waters of the High Aswan Dam (photo by Zbyněk Žába)
Frontispiece: Eugen Strouhal during field research in and around the Tomb of Pay at Saqqara in 1996 (photo archive of Eugen Strouhal; text by Ladislav Bareš)

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In commemoration of the late
Professor MUDr. RNDr. Jindřich A. Valšík, DrSc.,
my teacher in physical anthropology,
and of my late friends and collaborators at Wadi Qitna
Professor PhDr. Milan Stuchlík, CSc.,
and PhDr. Evžen Hnátek,
as well as of my late friend and co-worker in palaeopathology
Professor MUDr. Luboš Vyhnánek, DrSc.
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FIGURES
The authorship of the drawn figures included in Chapters 4, 5, 7, 8 and 19 of this volume was not indicated when the manuscript was submitted for editing in 2015. With Figures 4.1–4.6, 7.3–7.7, 8.2–8.5 and 19.3–19.15, it is reasonable to suppose they were drawn by Eugen Strouhal himself. With Figures 5.2, 8.1 and 19.1–19.2, the authorship is uncertain. All these figures were redrawn by Lucie Vařeková and Lenka Varadzinová.

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LIST OF ABBREVIATIONS

AA = comparative series from Amir Abdallah
AG = comparative sample from Asyut, Gebelein and Aswan
AK = comparative series from Aksha
ant. = anterior
AP = comparative sample from the Mastaba of Pthahshepses at Abusir
AS = comparative sample from the Anubieion Temple at Saqqara
AT = comparative sample from Attiri
C = child, or canine (Chapter 16)
c. = century
ca. = circa
Ce = cervical vertebra
Co = coccygeal vertebra
diam. = diameter
DU = comparative sample from Duweishat
F = female
H1 = Wadi Halfa Meroitic comparative sample (Chapter 11)
H2 = Wadi Halfa X-Group comparative sample (Chapter 11)
H3 = Wadi Halfa Christian comparative sample (Chapter 11)
JM = comparative series from Jebel Moya
K with a number = tumulus or skeleton no. of the Kalabsha-South cemetery
KS = Kalabsha-South (cemetery, sample, etc.)
LNM = Lower Nubian Meroitic comparative series (see also MP)
LNN = Lower Nubian New Kingdom comparative series
LNX = Lower Nubian X-Group comparative series (see also XG)
Lu = lumbar vertebra
M = male
M1 = Missiminia Meroitic comparative sample (Chapter 11); first molar (Chapter 16)
M2 = Missiminia Late Meroitic comparative sample (Chapter 11); second molar (Chapter 16)
M3 = Missiminia X-Group comparative sample (Chapter 11); third molar (Chapter 16)
M4 = Missiminia Christian comparative sample (Chapter 11)
max. = maximum
MF = Ptolemaic Manfalout comparative sample
MP = Lower Nubian Merotic comparative series (see also LNM)
MSM = Missiminia Meroitic comparative series (Chapter 19)
MSMT = Missiminia Late Meroitic comparative series (Chapter 19)
MSPM = Missiminia pre-Meroitic comparative series (Chapter 19)
MSX = Missiminia X-Group comparative series (Chapter 19)
NL = Nilotic (Shilluk) male comparative sample
no. = number
NQ = Naqada Predynastic comparative sample
PG = comparative sample from the Pan-Grave cemetery at Sayala
post. = posterior
prom. = prominence
QH = comparative sample from Qubbet el-Hawa
QM = Qustul Meroitic comparative series
QX = Qustul X-Group comparative series
R = range
s = standard deviation
S1 = Sayala cemetery C/I comparative sample (Chapter 11)
S2 = Sayala cemetery C/II comparative sample (Chapter 11)
S3 = Sayala cemetery C/III comparative sample (Chapter 11)
Sa = sacral vertebra
SA = Sayala cemetery A comparative sample (Chapter 11)
SAA = Sayala cemetery A comparative series (Chapter 19)
SAC1 = Sayala cemetery C/I comparative sample and series (Chapters 17 and 19)
SAC2 = Sayala cemetery C/II comparative series (Chapter 19)
SAC3 = Sayala cemetery C/III comparative series (Chapter 19)
SAN = Sayala cemetery N comparative sample and series (Chapters 17 and 19)
SC = comparative sample from the C-Group cemetery at Sayala
SD = standard deviation (only Chapter 11)
SK = comparative sample from the Christian cemeteries I, J and K at Sayala
SN = Sayala cemetery N comparative sample (Chapter 11)
SS = Sesebi New Kingdom comparative series
t. = tumulus (number at Wadi Qitna without a prefix, at Kalabsha-South with prefix K)
tc. = tumulus cluster
Th = thoracic vertebra
transv. = transversal
V = coefficient of variation
WHM = Wadi Halfa Meroitic comparative series (Chapter 19)
WHN = Wadi Halfa New Kingdom comparative series (Chapter 19)
WHX = Wadi Halfa X-Group comparative series (Chapter 19)
WK = joint Wadi Qitna and Kalabsha-South sample (Chapter 11)
WQ = Wadi Qitna (cemetry, sample, etc.)
\( \bar{x} \) = mean value (arithmetic mean)
XG = Lower Nubian X-Group comparative series (see also LNX)

Numbers of individuals are derived from numbers of the tumuli (e.g., 1, 2, 3, etc.) preceded by “K” in the case of the Kalabsha-South sample, and parts of the tumulus clusters marked with upper case letters (e.g., A, B, C, etc.). If more than one individual were buried in the same burial chamber, they are distinguished by lower case letters (e.g., a, b, c, etc. – originally by letters of the Greek alphabet).

More specific abbreviations are explained wherever they appear in the text, figures, tables or appendices.
Eugen Strouhal ranges among the few physical anthropologists who brought their expertise into the UNESCO-organised salvage campaign called for in advance of the ultimate submersion of Lower Nubia and her archaeological and anthropological archives by the waters of the projected High Aswan Dam. His particular interest rested in palaeodemography of ancient Nubian populations, but he was as prolific writer when other aspects of anthropology of Egypt and Nubia were concerned (see Editors 2010; 2016).

His dedication to Nubia was not only complex, but also a long-term one, lasting over several decades. The beginnings of his engagement are connected with Wadi Qitna and Kalabsha South – two sites in the northern part of Lower Nubia which he and his colleagues excavated during the UNESCO-organised salvage campaign and which he undertook to evaluate not only from the point of view of anthropology, but also archaeology. The volume dedicated to archaeological aspects of these large burial grounds was elaborated by him and his collaborators first and was published already in 1984 (see Strouhal 1984a). The second volume was to bring the anthropological foundations for the hypotheses presented in Volume I. Just as the archaeological part, it was planned from the beginning as a monumental work, addressing not only bioarchaeological, but also social and cultural aspects of the two cemeteries and discussing them in the historical context of contemporary Nubia (Strouhal 1984a: 270). Many of the chapters of the planned volume were based on Strouhal’s thesis for the degree of Candidate of Science (CSc.) (see Strouhal 1967b) and were more or less finished in the 1990s, with some of them having their forerunners in papers and conference presentations concerned with selected aspects of the Wadi Qitna series or in comparative studies (e.g., Strouhal 1968b; 1971a; 1973; 1982d; 1984b; 1986d; 1988; 1990a). Nevertheless, diverse reasons, which Strouhal described in his Introduction, kept delaying the publication of the second comprehensive volume that would bring the many aspects together and evaluate them in all their complexity.

One has to give credit to Strouhal that in 2014, at the age of 84, he agreed to return to this unfinished task and to work towards finalisation of the manuscript of the anthropological volume for publication. The manuscript he submitted in 2015 for editing and reviews was organised in 20 chapters and included separate sections entitled Introduction, Summary and Conclusion. As was the case with the previous volume, the textual part was to be accompanied by more than one hundred tables and a rich collection of figures and photographs to illustrate the diverse aspects discussed in the text. However, the first editing of the work made it clear that a thorough revision of the manuscript was necessary to improve consistency and integrity of the entire work and of its individual parts and to increase their compliance with both current state of research and current standards for scientific publications. Strouhal faced this challenge bravely and began this revision by going back to his anthropological cards to compile a general catalogue of the Wadi Qitna individuals, on the basis of which it would be then possible to eliminate the discrepancies in numbers recurring in diverse parts of the manuscript and, subsequently, address other issues. Unfortunately, when the catalogue of individuals was nearly completed and Strouhal began to work on this first round of revision, he died in the autumn of 2016, leaving his monumental work unfinished.
With his untimely death, we found ourselves at the horns of a dilemma. The manuscript was not updated and finalised by the author and was problematic in archaeological and anthropological aspects, but also for the specific circumstances under which his work had been conceived and terminated. The main challenge rested in the fact that the manuscript remained embedded in the period of (or even before) the 1990s when most of the chapters were elaborated by Strouhal for the first time. This was evident, first of all, in the terminology and methodology, which corresponded to the state of anthropological research some 50 years ago – not only in the methods used, but also in the research questions addressed. Nevertheless, it was also felt in evaluation of the findings and in interpretations he put forward: while the former did not generally incorporate scholarly works published after the 1990s, some of the latter appear somewhat intuitive these days, if not even speculative, when one considers the often fragmentary state of the data on which they were based. Simply said, under different circumstances, the manuscript would not be approved for publication in the form in which it was left unfinished, and would be returned to the author for a substantial revision.

The dilemma of whether to continue the work and publish the manuscript after Strouhal’s death, or abandon this project entirely, was repeatedly discussed with a number of colleagues. Finally, it was resolved in the positive with a view to the fact that the data contained in the manuscript were of a value too great to remain unpublished. With that decision, it was necessary to find the right format the book should take. The options we had as editors soon turned out to be quite limited. Two main reasons made it impossible for the manuscript to be reworked and interpretations revised based on primary data and up-to-date literature: the unavailability of the complete set of data that would allow to revise and complete the work, and ethical issues involving the authorship of such a reworked book. We also dismissed the suggestion of some colleagues that all purely interpretative parts should be removed from the volume and only primary data published without interpretations: this would mean censorship and denying the author the right to interpret the material he processed and described. It would also reduce the monumental design into a mere torso, which would not make sense with a view to the fact that most of the interpretations had been already published anyway (most recently Strouhal 2014).

After three years of trying different solutions, we arrived at a conclusion that the most feasible and the most ethical way to improve the consistency of the work and, at the same time, preserve its integrity, was to treat the manuscript as a historical document and to present it in the form of annotated edition. In this way, we could eliminate formal inconsistencies of the work through comments and notes attached to problematic points. At the same time, it would be possible to keep a clear border line between the work of the editors and the domain of the author and his intellectual contribution to the topic, to respect the specific methodological and intellectual licence of the author, and to preserve the original spirit of the manuscript and the period in which it was elaborated. Thereby, we could bring to the scientific community a plausibly useful publication of a comparatively valued anthropological material and, hopefully, open paths to its further research.

We acknowledge that the format of annotated edition we offer to the readers is incomparable to what the publication would look like had the author had enough time to complete the revision and to update and finalise the manuscript himself. Nevertheless, the publication still remains of a great value for a number of reasons: It brings to the fore a wealth of information on the populations of Lower Nubia during the critical centuries between the “Antiquity” and the “Middle Ages” in this part of the world. As a historical document, it captures a certain phase in development of anthropology – physical, social and cultural one – as a science. Last, but not least, it captures the breadth and depth of Eugen Strouhal’s professional engagement with anthropology of Egypt and Nubia and betrays his specific author’s approach to the material and field of research. In all these respects, the publication is unique – one could even say as unique as was the author himself.

Rationale of the book
In editing the manuscript, we worked with the last version worked on by Strouhal prior to his death. We did not modify its extent and structure, both of which remain as determined by the
main author himself. The layout of the book, on the other hand, was updated to fit the character of this second volume (as annotated edition).

Where no authorship is explicitly stated under the headings of chapters or sections, Eugen Strouhal is the sole author. Collaborators are explicitly indicated under the headings of chapters or sections they co-authored or contributed to with their results. Where “we” or “our” is used in the main text or in the author’s footnotes to the text (placed next to the main text), it refers to Strouhal and/or other author(s) of the text, but not to the editors. Where possible, collaborators were contacted to authorise the edited form of their chapters or sections (see List of contributors at the end of this volume).

The editors’ comments and notes are kept separate from the main text and its footnotes and are differentiated from the footnotes by means of a separate sequence of numbers (C1 = comment 1, C2 = comment 2, etc.) that runs through the entire textual part of the book. Where editors’ notes and comments are attached to tables and appendices, they are placed beneath the author’s explanations and introduced as editors’ notes. In addition, they are differentiated from the author’s explanations by means of an independent sequence of lower case letters (a, b, c, etc.) attached to the points that require comments. Where “we” or “our” is used in the editors’ notes and comments, it refers to the editors solely.

The editors’ comments on each chapter begin with a brief introduction that sets the topic of the chapter in its period context. This first editors’ note comments on the genesis of the chapter and summarises contingent problems of the particular chapter as to terminology, methodology and/or interpretation. It also indicates the extent and character of revision (if any) of the text, tables and/or figures done by Strouhal or the editors, or any revision needed, but not performed due to specific reasons. The latter may be described in greater detail in the editors’ comments or notes attached to the respective passages of text or tables.

The basic revision of the manuscript was made possible thanks to the revised and extended “Catalogue of the skeletal remains of individuals from the Wadi Qitna cemetery” (in Appendix I) and “Demography and preservation of the Kalabsha-South individuals” (in Appendix II) and/or notes for revision which Strouhal had left behind for these purposes. This type of revision of the text, tables or figures is not commented on in detail in the editors’ notes as it is deemed to have been done by the author himself. On the other hand, we explicitly indicate the cases where data needed for revision of tables and/or descriptive parts were available, but the revision was not done, as it would necessitate revision and editing of Strouhal’s evaluations and interpretations of the results in the text, and this, without specific instructions and notes from Strouhal, would constitute an encroachment on the author’s domain. In one case, however – that of the basic demographic distribution of the Wadi Qitna population in Chapter 5 –, we resolved the problem of authorship and responsibility for the results by removing four problematic figures and the text relating to them from the chapter itself and by including revised figures with brief updated commentaries in the introduction to the “Catalogue of the skeletal remains of individuals from the Wadi Qitna cemetery” (Appendix I) co-authored by the editors. Last, but not least, the editors’ comments also mention cases where revision of tables and/or figures and the text discussing their values could not be made as we did not have the exact input data on which Strouhal had based his findings and evaluations, or we lacked some interim results Strouhal referred to (for instance, and in particular, when evaluating the statistical significance of his findings in some chapters).

The editing of the volume included also processing of the printed copies of figures and maps that were to accompany Chapters 4–19 (figures) and the volume in general (maps of the two cemeteries). Where input data were available (whether revised or unrevised), new graphs were prepared by the editors (Figs. 5.1; 5.3–5.5; 6.1; 6.2; 7.1; 7.2). All the remaining figures (including the graphs and charts in Figures 5.6–5.8; 6.3; 18.1–18.4; 19.16–19.23, but also the unusual graphic visualizations of variability and differences between selected series in Figures 19.3–19.15) were redrawn for the purposes of this volume by Lucie Vařeková and Lenka Varadzinová using the printed copies provided by Strouhal.

As far as terminological challenges of the volume are concerned, we replaced the occasional Latin versions of anthropological terms with their more frequent English forms (for instance, iliac crest instead of crista iliaca) and unified the names of measurements and indices and, to a certain
extent, also the abbreviations of comparative samples to ensure their consistency throughout the
volume. However, we only commented on, but did not edit the outdated terminology sometimes
used by Strouhal, in order to preserve the historical character of the work.

Where possible and necessary, we attach comments and suggest more recent literature that
addresses similar research questions or contains more recent comparable data in order to bridge
the gap between the actual completion of most of the chapters and the actual publication of
the volume.

The interpretations put forward by Strouhal – no matter how intuitive, speculative or
outdated they may seem – are retained without editing, but are separated from the descriptive
text (as long as such a separation was possible) by use of italics for their headings.

Last, but not least, we performed no revision of the age and/or sex estimates of the individuals
from the two cemeteries using the skeletal remains deposited in the Department of Anthropology
of the Natural History Museum of the National Museum in Prague in order to preserve the
integrity of the assemblage presented in this volume as a collection studied by one anthropologist
using a uniform set of procedures. When editing the manuscript for publication, we also retained
Strouhal’s choice to use quarterly intervals to indicate the age of infants as opposed to months
occurring more commonly in recent anthropological works – to respect his methodological
approach, but also to prevent the emergence of unnecessary mistakes in the work through their
conversion to months.

Nevertheless, for the purposes of this publication, and to facilitate further study of the skeletal
remains, we extended the “Catalogue of the skeletal remains of individuals from the Wadi Qitna
cemetery” (Appendix I) and the “Demography and preservation of the Kalabsha-South individuals”
(Appendix II) with information concerning the physical presence of the skeletal remains from Wadi
Qitna and Kalabsha-South in the collection of the Department of Anthropology of the Natural
History Museum of the National Museum in Prague (see “Storage in NM” in Appendices I and II).
It is evident from the inventory that only a small portion of the skeletal remains excavated at the
two cemeteries was transported and preserved for further study. However, if approached with
well-targeted research questions and studied by means of state-of-the-art research methods, this
small collection can still provide fresh insights into the life and death of the communities that
buried their dead at these two now vanished sites.

We greatly acknowledge the support and cooperation of the family of Eugen Strouhal, in
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with accompanying documentation and files Strouhal used in his work on the revision and
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of the work and address important issues that would otherwise remain overlooked. Nevertheless,
needless to say, any omissions or errors in this annotated edition remain solely ours.

In Prague, 14 November 2019

Lenka Varadzinová and Petra Havelková
WADI QITNA
AND
KALABSHA–SOUTH
Late Roman – Early Byzantine Tumuli Cemeteries
in Egyptian Nubia

VOLUME II
Anthropology

By †EUGEN STROUHAL

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The present publication follows Volume I of 1984 that presented the results of a comprehensive archaeological investigation of two tumulus cemeteries of the Late Roman and Early Byzantine Period (third–fifth centuries AD) explored by the Czechoslovak Institute of Egyptology (Charles University in Prague) in the scope of the UNESCO-organised salvage campaign called for in advance of the ultimate submersion of Nubia by the waters of the High Aswan Dam. This Volume II evaluates the human skeletal remains of 558 individuals from the completely explored cemetery at Wadi Qitna (456 tumuli) and a comparative sample of 35 individuals from the near-by cemetery at Kalabsha-South (19 tumuli) from the point of view of social, cultural and physical anthropology. It provides the evidence of their social structure as well as an insight into the life of the people and their family relationships. A comparison of the physical-anthropological features of the community with other contemporaneous and antecedent series using univariate and multivariate methods reveals their mutual position. The final chapter provides a brief overview of the history of the northern part of Egyptian Nubia and an up-to-date report on the handmade pottery found in large numbers at Wadi Qitna and Kalabsha-South, whose distribution has since been attested at many sites in the Nile Valley, on the Red Sea coast and in the Eastern Desert of Egypt and the Sudan. The volume touches upon the complex social and ethnic processes that were taking place in the frontier region between Egypt and Nubia during the critical centuries separating the Antiquity and Medieval Period and opens paths to their further research.