Ain Shams University
Faculty of Arts
Tourist Guiding Department

Man and Water in the Daily Life of the Ancient Egyptians from the New Kingdom till the End of the Pharaonic Period

A Thesis
Submitted to the Faculty of Arts, Ain Shams University,
in Fulfillment of the Requirement of Master's Degree

Submitted by

Karim El Sayed Ebrahim El Sayed

Under the Supervision of

Professor Dr.
Mohammed Ibrahim Ali
Former Minister of Antiquities &
Professor of Egyptology
Tourism Guidance Department
Faculty of Arts - Ain Shams University

Dr.
Amany Abdel-Rehim Ali
Lecturer of Egyptology
Tourism Guidance Department
Faculty of Arts - Ain Shams University

2018

جامعة عين شمس
كلية الآداب
قسم الإرشاد السياحى

رسالة ماجستير

اسم الطالب: كريم السيد إبراهيم السيد

عنوان الرسالة: الإنسان والمياه فى الحياة اليومية للمصريين القدماء منذ الدولة الحديثة وحتى نهاية العصر الفرعونى

لجنة الإشراف

الأستاذ الدكتور محمد إبراهيم على

وزير الآثار الأسبق وأستاذ المصريات بقسم الإرشاد السياحى بكلية الآداب جامعة عين شمس

د / أمانى عبد الرحيم على

مدرس بقسم الإرشاد السياحى بكلية الآداب جامعة عين شمس

تاريخ البحث:

الدراسات العليا

ختم الإجازة

أُجيزت الرسالة بتاريخ
/ /٢٠١٨م

موافقة مجلس الكلية
/ /٢٠١٨م

موافقة مجلس الجامعة
/ /٢٠١٨م

جامعة عين شمس
كلية الآداب

اسم الطالب: كريم السيد إبراهيم السيد

الدرجة العلمية: الماجستير

القسم التابع له: الإرشاد السياحى

اسم الكلية: الآداب

الجامعة: عين شمس

سنة التخرج: ٢٠٠٨م

تاريخ التسجيل: يونيو ٢٠١١م

سنة المنح: / /٢٠١٨م

تاريخ المناقشة: ٢٨/ ٤/٢٠١٨م

To my parents,

With love.

" وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيءٍ حَيٍّ أَفَلاَ يُؤْمِنُونَ "

قرآن كريم

(سورة الأنبياء :٣٠)

Acknowledgments

I would like to express my deepest appreciation and gratitude to Professor Dr. Mohamed Ibrahim Aly, the Former Minister of Antiquities and the Professor of Egyptology in the Tourism Guidance Department in the Faculty of Arts, Ain Shams University for his support, assistance, valuable advice, kindness and encouragement. I would like also to express my appreciation to Dr Amany Abdel Rehim, Lecturer of History in the faculty of Arts, Tourism Guidance department Ain Shams University for her great help and accurate supervision.

I gratefully acknowledge my examiner Professor. Dr. Mey Zaki, Professor of Egyptology at Helwan University and the Head of the Tourism Guidance Department for the time and effort she gave to evaluate this work. I also would like to offer my sincere gratitude to Assistant Professor Dr. Nevine Tolba, Assistant Professor of Egyptology at Ain Shams University, Faculty of Arts, Tourism Guidance Department for revising and assessing the thesis.

I would like to use this opportunity to express my Thankfulness to Dr. Dina Sadik, Lecturer of Egyptology at Tourism Guidance Department, Ain Shams University. Many thanks go to my dear colleagues and friends Mennah Aly and Shady abdel Hady for their aspiring motivation and friendly Advice. Finally, I must express my profound gratefulness to my parents, brothers and my beloved sister for their continuous encouragement and unfailing support all through the years of my study.

Karim Elsayed Ebrahim

Cairo, 2018

Table of Contents

List of Figures VI

List of Plates VII

Introduction and Methodology 1

Part One: Documentation: Chapter One: Sources of Water Supply 20

1. Archeological evidence 20

1. a. Water supply for villages 20

1. a. i. The Amarna city 20

1. a. ii. The workmen village of Tell el-Amarna 22

1. a. iii. The workmen village of Deir el Medina 23

1. b. Water supply for temples 25

1. c. Water supply for fortresses and desert routes 31

1. c. i. Fortresses 31

1. c.ii. Desert routes 37

2. Textual evidence 39

2. i. Wells digging 39

2. ii. Mentioning of water sources 49

Chapter Two: Means of Lifting, Delivering and Drinking Water 60

1. Means of lifting water 60

2. Means of delivering water…. 65

2.a. Archeological evidence 65

2.b. Textual evidence 72

3. Means of Drinking Water 78

Chapter Three: Sanitary Installations and Drainage Systems 81

1. Sanitary Installations 81

1.a. Items 81

1.b. Monuments 83

2. Drainage systems 96

2.a. Water pipes and pottery drainage 96

2.b. Water spouts 101
2.c. Roof drainage.....105
Chapter Four: Applications and Practices Involving the Usage of Water 109
1. Applications.....109
1.a. Nilometers.....109
1.b. Water clocks "Clepsydrae".....112
2. Practices.....114
2. a. Brick making.....114
2. b. Laundry.....115
2. c Magic and medicine 116
2. d Plantation and gardening 125
Part Two: Analytic Study: Analysis 131
1. Chapter One: Sources of Water Supply.....131
2. Chapter Two: Means of Lifting, Distribution and Drinking Water.....165
3. Chapter Three: Sanitary Installations and Drainage System 171
4. Chapter Four: Applications and Practices Involving the Usage of Water.....188
Conclusions.....216
Water terminolgy table.....225
Plates.....232
Bibliography 375
Webography.....401

List of Figures

Figures of the Introduction	Page
Fig. No. 1: Water jar with a star decorated with zig-zag lines of water.	3
Fig. No. 2: Drawing of the Mace-head of the scorpion king digging a canal.	5
Fig. No. 3: A Painting in the Middle Kingdom Tomb of Khnumhotep at Beni Hassan.	11
Fig. No. 4: Fig. no. 4: A scene from the Middle Kingdom Tomb of Khnumhotep I at Beni Hassan.	11
Fig. No. 5: Scarab issued by Amenhotep II commemorating his digging of a lake to Queen Tiye.	15
Figures of the Analytic Study	**page**
Fig. no. 1: Plan of the fortresses in the area between the first and second cataracts.	142
Fig. no. 2: Plan showing the location of fortresses on the ways of Horus.	150
Fig. no. 3: The Ancient Egyptian terminology for wells.	161