The Enduring

Ancient Egyptian Musical System

Theory and Practice

Expanded Second Edition

Moustafa Gadalla
Maa Kheru (True of Voice)

Tehuti Research Foundation
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The Enduring Ancient Egyptian Musical System:
Theory and Practice

Expanded Second Edition

by MOURSTIFA GADALLA

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DEDICATION

This Book is Dedicated to

The Baladi Egyptian Musicians,

The Most Humble and

The Most Talented
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ABOUT THE AUTHOR

Moustafa Gadalla is an Egyptian-American independent Egyptologist who was born in Cairo, Egypt in 1944. He holds a Bachelor of Science degree in civil engineering from Cairo University.

Gadalla is the author of twenty-two published, internationally acclaimed books about the various aspects of the Ancient Egyptian history and civilization and its influences worldwide.

He is the Founder and Chairman of the Tehuti Research Foundation (https://www.egypt-tehuti.org)—an international, U.S.-based, nonprofit organization dedicated to Ancient Egyptian studies. He is also the Founder and Head of the online Egyptian Mystical University (https://www.EgyptianMysticalUniversity.org).

From his early childhood, Gadalla pursued his Ancient Egyptian roots with passion, through continuous study and research. Since 1990, he has dedicated and concentrated all his time to researching and writing.
This book is a revised and enhanced edition of the book *Egyptian Rhythm: The Heavenly Melodies* by Moustafa Gadalla, originally published in 2002. The name of the book was changed to better reflect its expanded contents.

It should be noted that the digital edition of this book as published in PDF and E-book formats have a substantial number of additional photographs that compliment the text materials throughout the book.

This book will show the cosmic roots of Egyptian musical, vocal, and dancing rhythmic forms. Learn the fundamentals (theory and practice) of music in the typical Egyptian way: simple, coherent, and comprehensive. Review a detailed description of the major Egyptian musical instruments, playing techniques, functions, etc. Discover the Egyptian rhythmic practices in all aspects of their lives. This book will make your heart sing.

This book is to be considered as one of two complimentary books, the other being *The Musical Aspects of The Ancient Egyptian Vocalic Language*, both by the same author. This book will show that the fundamentals, structure, formations, grammar, and syntax are exactly the
same in music and in the Egyptian alphabetical language. The book will show the musical/tonal/tonic Egyptian alphabets as being derived from the three primary tonal sounds/vowels; the fundamentals of generative phonology and the nature of the four sound variations of each letter and its exact equivalence in musical notes; the generative nature of both the musical triads and its equivalence in the Egyptian trilateral stem verbs; utilization of alphabets and the vocalic notations for both texts and musical instruments performance; and much more.

It is the aim of this book to provide such an exposition; one that, while based on sound scholarship, will present the issues in language comprehensible to non-specialist readers. Technical terms have been kept to a minimum. These are explained, as non-technically as possible, in the glossary. This Expanded Edition of the book: The Enduring Ancient Egyptian Musical System is divided into seven parts containing a total of 22 chapters and five appendices.

**Part I: Prelude** consists of one chapter:

*Chapter 1: The Egyptian Musical System* will cover a quick background overview of the Egyptian musical system, as evident in its archaeological findings.

**Part II: The Harmony of The Spheres** consists of four chapters—2 through 5:

*Chapter 2: The Archetypal Cosmic Musical System* will cover the basis and role of the harmony of the spheres in adopting the diatonic musical scale as the archetypal musical system.

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Chapter 3: **Music All the Time (24 hours, 7 days)** will cover and explain the correlations between the hours of the days of the week and their corresponding musical notes.

Chapter 4: **Energizing the Diatonic Week** will cover the natural musical scale, its two energy Centers, and the Egyptian Dorian D-scale.

Chapter 5: **The Harmonic Three Components** will cover the primary basics of the Egyptian harmonic canon, the three primary quantal vowels/sounds, and the triadic musical/linguistic core.

**Part III: The Musical Notes** consists of two chapters—6 and 7:

Chapter 6: **The Derivatives of The Perfect Fifth** will cover how the Perfect Fifth progression creates all harmonic musical notes; and how the natural progression of the Perfect Fifth leads to the determination of the Egyptian musical measuring units.

Chapter 7: **The Musical Measuring Unit** will explain how the Egyptian musical measuring units is the only measuring unit for all natural harmonic tones—east and west; its application to the twin-scale [authentic and plagal]; and its application to both the cyclic and divisive methods of instrument tuning.

**Part IV: The Egyptian Musical Composition Code** consists of six chapters—8 through 13:

Chapter 8: **The Musical Framework Varieties** will cover the overall tone system, giving an example of a scale based
on the cyclic framework, and another based on the divisive framework.

Chapter 9: Modes and Musical Structural Forms will cover the musical ethos—moods and modes and the overall basic design characteristics of modes.

Chapter 10: The Musical Lyrics will cover the Egyptian vocal musical themes; and the major parts of human-generated (vocal) sounds and its equivalent in musical instruments.

Chapter 11: The Seamless Language of/and Music will cover the intimate relationship between the Egyptian alphabetical language and the musical system; the significance of musicality in Ancient Egyptian literature; the utilization of letters as musical notes; the modulation of individual sound values; and the intimate relationships between music pulsation and the rhythmic flow of syllable streams.

Chapter 12: The Musical Performance will cover the significance and roles of the fingers and their knuckles in producing and directing musical performances; as well as the varied methods for maintaining the rhythmic timing/tempo—including the use of syllables.

Chapter 13: The Egyptian Tonal Writing System will cover the preeminence of Ancient Egyptian tonal writings as well as the primary writing components of lyrical/musical texts.

Part V: The Egyptian Musical Instruments consists of four chapters—14 through 17:
Chapter 14: The Wealth of Instruments will cover the general characteristics of Egyptian instruments as well the major components of the musical orchestra.

Chapter 15: Stringed Instruments will cover various Ancient Egyptian stringed instruments such as lyres, trigonon (zither), harps (including playing techniques); The All-Encompassing Capacities of Ancient Music; string instruments with neck such as the short-neck Lute; the long-neck Egyptian guitars; and Bowed Instruments [Kamanga, Rababa].

Chapter 16: Wind Instruments will cover the end-blown flute; transverse flute; pan flute; single reed pipe (clarinet); double pipe; double clarinet; double oboe; arghool; others (bagpipe and organ); and horns/trumpets.

Chapter 17: Percussion Instruments will cover the membranophone instruments such as drums and tambourines; and the non-membranophone (idiophone) instruments such as percussion sticks, clappers, sistrums/sistra, cymbals, castanets, bells (chimes), xylophone and glockenspiel and human parts (hands, fingers, thighs, feet, etc.).

Part VI: Maintaining The Heavenly Rhythms consists of four chapters—18 through 21:

Chapter 18: The Universal Harmony will cover the role of music in maintaining the universal balance; the significance of alternating performance theme of balanced polarity; and the Dorian musical suites.

Chapter 19: Rhythmic Dancing will cover the significance of dancing as well as dancing types and formations.
Chapter 20: The Harmonic Practices will cover the profession of musicians in Ancient (and present-day) Egypt; the temple musical activities; and the applications of music in various public activities.

Chapter 21: The Harmonic Sound Man will cover the application of music in the various stages of human lives—from cradle to grave.

Part VII: Postlude consists of one chapter—22:

Chapter 22: And the Beat Goes On will cover the endurance of the Ancient Egyptian musical traditions into present times.

Appendices A through E provide expansions on some topics that were discussed in the various chapters.

Moustafa Gadalla
Music and dance, nowadays, are considered to be types of “art”. The term “art” made it possible for anyone to qualify any absurdity and label it as a “work of art”. The downhill trend in music started with Western academicians themselves, when in the 19th century they rejected the natural sounds of the harmonic and well balanced tones in order to simplify the arithmetic explanation of music. They called their scheme ‘scale temperament’. This tampering of music created unnatural tones with different vibrational frequencies than those of the well-balanced natural tones. [See Appendix A for more details.]

It should be noted that the keyboards of Mozart, Beethoven, and Bach were not tuned to the frequencies that are used in Western music today. These composers’ works have been ruined by a combination of the use of unnatural tones, large ensembles, and the overpowering “new” musical instruments.

This book is intended to restore the musical faculties by uncovering the musical knowledge of Ancient Egypt. Musical life in Ancient Egypt has been ignored and denied by practically all Western musicologists. They are, in essence, denying themselves and the world of the most
incredible source of music. We must note, however, the few Western musicologists who overcame Western and Judeao-Christian paradigms to show the real accomplishments of Ancient Egypt. Among these few are the works of two distinguished Frenchmen: J. P. Roussier (1770) and F. J. Fétis (1837).

For the Ancient (and present-day Sufi) Egyptians, music was/is a mandatory subject for the education of youth; for to teach music, you teach everything. Plato acknowledged and endorsed the Ancient Egyptian musical system. He established the Ideal Laws in his ideal Republic based solely and exclusively on the Ancient Egyptian system as referred to throughout the book.

For the Ancient and Baladi (the present silent majority) Egyptians, music and dance are not abstract arts. For them, music is not just a way of life; it is life itself. It is as natural, critical, and vital as breathing.

Since all aspects of the universe are harmoniously inter-related, Egyptians can never separate music and dance from astronomy, geometry, mathematics, physics, theology, medicine, traditions, etc. The Egyptian musical system is a beautiful blend of all aspects of nature. Let the Egyptian Rhythm immerse you in the Heavenly Melodies. It is so beautiful. It is so intoxicating.

Moustafa Gadalla
To-beh 1, 13,000 (Ancient Egyptian Calendar)
January 9, 2002 CE
STANDARDS AND TERMINOLOGY

1. Throughout this book, octave ranges are named according to the following system:

   \[ c_3 \quad c_2 \quad c_1 \quad c \quad c^1 \quad c^2 \quad c^3 \]

   <— Lower Octaves —<—|—>— Higher Octaves—>

2. Capital letters (C, D, E, etc.) are reserved for general pitch names without regard to a specific octave range.

3. The Ancient Egyptian word neter and its feminine form netert, have been wrongly, and possibly intentionally, translated to ‘god’ and ‘goddess’ by almost all academicians. Neteru (plural of neter/netert) are the divine principles and functions of the One Supreme God.

4. You may find variations in writing the same Ancient Egyptian term, such as Amen/Amon/Amun or Pir/Per. This is because the vowels you see in translated Egyptian texts are only approximations of sounds which are used by Western Egyptologists to help them pronounce the Ancient Egyptian terms/words.

5. We will be using the most commonly recognized words for the English-speaking people that identify a neter/
netert [god, goddess] a pharaoh, or a city; followed by other ‘variations' of such a word/term.

It should be noted that the real names of the deities (gods, goddesses) were kept secret so as to guard the cosmic power of the deity. The Neteru were referred to by epithets that describe particular qualities, attributes, and/or aspect(s) of their roles. Such applies to all common terms such as Isis, Osiris, Amun, Re, Horus, etc.

6. When using the Latin calendar, we will use the following terms:

**BCE** – Before Common Era. Also noted in other references as BC.

**CE** – Common Era. Also noted in other references as AD.

7. The term Baladi will be used throughout this book to denote the present silent majority of Egyptians that adhere to the Ancient Egyptian traditions, with a thin exterior layer of Islam. The Christian population of Egypt is an ethnic minority that came as refugees from Judaea and Syria to the Ptolemaic/Roman-ruled Alexandria. Now, 2,000 years later, they are easily distinguishable in looks and mannerisms from the majority of native Egyptians. [See *Ancient Egyptian Culture Revealed* by Moustafa Gadalla, for detailed information.]

8. There were/are no Ancient Egyptian writings/texts that were categorized by the Egyptians themselves as “religious”, “funerary”, “sacred”, etc. Western academia gave the Ancient Egyptian texts arbitrary names, such
as the “Book of This” and the “Book of That”, “divisions”, “utterances”, “spells”, etc. Western academia even decided that a certain “Book” had a “Theban version” or “this or that time period version”. After believing their own inventive creation, academia then accused the Ancient Egyptians of making mistakes and missing portions of their own writings (?!!).

For ease of reference, we will mention the common but arbitrary Western academic categorization of Ancient Egyptian texts, even though the Ancient Egyptians themselves never did.
MAP OF EGYPT
PART I : PRELUDE
CHAPTER 1: THE EGYPTIAN MUSICAL SYSTEM

The archaeological and traditional Egyptian history of music is much more abundant than in any other country. The wall reliefs of the Ancient Egyptian temples and tombs depict numerous types and forms of musical instruments, the technique in which these instruments were to be played and tuned, ensemble playing, and much, much more.

These musical scenes visibly show the hands of the harp player striking certain strings,
and the wind instrument players playing certain chords together.

The distances of the lute frets clearly show that the corresponding intervals and scales can be measured and calculated. [Detailed analysis is shown in a later chapter in this book.]

The positions of the harpists’ hands on the strings clearly indicate ratios such as the Fourth, the Fifth, and the
Octave, revealing an unquestionable knowledge of the laws governing musical harmony.

The playing of musical instruments is also depicted as being controlled by the conductors’ hand movements, which also help us identify certain tones, intervals, and functions of sound, as shown on the left in the depiction below.

The intervals of Fourth, Fifth, and Octave were the most common in Ancient Egyptian representations. Curt Sachs [in his book, History of Musical Instruments] found that out of 17 harpists represented on Egyptian art works (with sufficient realism and distinctness to be reliable records), seven are striking a Fourth chord, five a Fifth chord, and five an Octave chord.

The eight-term octave was called Harmonia or the harmonic octachord scale, and was described in early Greek writings as the Dorian octachord, structured based on the Octave, Fourth, and Fifth—the three consonant intervals. These three consonant intervals relate to the three sea-
sons of the Ancient Egyptian calendar, as we will see later in the book.

The most frequently depicted harps were found to have seven strings, and according to Curt Sachs’ study of the Egyptian instruments, the Egyptians tuned their harps in the same diatonic series of intervals.

>> One of the two harps found depicted in Ramses III’s tomb has 13 strings, where if the longest string represented pros-lambanomenos, or D, the remaining 12 strings would more than supply all the tones, semitones, and quartertones, of the diatonic, chromatic, and enharmonic genera within the compass of an octave.

In addition to the numerous representations of musical scenes pictured in temples and tombs from all periods throughout Egypt’s dynastic history, we also have access to hundreds of various Ancient Egyptian musical instruments that have been recovered from their tombs. These Egyptian instruments are now spread in museums and private collections throughout the world.

The depicted musical scenes in Ancient Egyptian tombs,
as well as instruments found from the Old and Middle Kingdoms, indicate ratios between the open strings of the harp and the densely ordered frets on the long necks of string instruments, as well as the measurements between the finger-holes in wind instruments that reveal/confirm that:

a. several types of musical scales were known/used.

b. narrow-stepped scales were common from the earliest known Egyptian history (more than 5,000 years ago).

c. playing and tuning techniques of string instruments provided solo and chordal playing of instruments.

d. playing techniques of wind instruments provided small increments and the organ effect.

e. both the cyclic (up-and-down) method and the divisive method of tuning were in use.

The Ancient Egyptians were/are famed worldwide for their mastery of the playing techniques of their musical instruments. The skill of the Egyptians, in the use of these instruments, was affirmed by Athenaeus, who stated (in his texts [iv, 25]) that “both the Greeks and "barbarians" were taught music by Egyptian natives.”

After the demise of the Ancient Egyptian Pharaonic Era, Egypt continued to be the learning center for music, for the Arabized/Islamized countries.
All these findings, together with the early historian writings of Egyptian musical heritage, as well as the traditions of modern Nile inhabitants, corroborate to provide the most authentic case of the musical history of Ancient Egypt.