

## **Music in Antiquity**

# Yuval



## Studies of the Jewish Music Research Centre

The Hebrew University of Jerusalem · Faculty of Humanities

Jewish Music Research Centre

In collaboration with the National Library of Israel

Academic Board of the Jewish Music Research Centre

Chairperson: Shalom Sabar

Haggai Ben-Shammai, Ruth HaCohen, Oded Irshai,

Eliyahu Schleifer, Rina Talgam, Eitan Wilf

Director: Edwin Seroussi

## Volume VIII

# Music in Antiquity

---

The Near East and the Mediterranean

Edited by Joan Goodnick Westenholz, Yossi Maurey  
and Edwin Seroussi

**DE GRUYTER**  
OLDENBOURG

**MAGNES**

ISBN 978-3-11-034026-6  
e-ISBN 978-3-11-034029-7

**Library of Congress Cataloging-in-Publication Data**

A CIP catalog record for this book has been applied for at the Library of Congress.

**Bibliographic information published by the Deutsche Nationalbibliothek**

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet <http://dnb.dnb.de>.

© 2014 Walter de Gruyter GmbH, Berlin/Boston  
& Hebrew University Magnes Press, Jerusalem

Cover image: Female figures with drums. Bichrome ware. Cyprus.

Cypro-Archaic I period, 750–600 BCE.

Courtesy of the Elie and Batya Borowski Foundation and the Bible Lands Museum Jerusalem.

Photographer: Moshe Caine

Typesetting: Michael Peschke, Berlin  
Printing: Hubert & Co. GmbH & Co. KG, Göttingen  
☺ Gedruckt auf säurefreiem Papier  
Printed in Germany

[www.degruyter.com](http://www.degruyter.com)  
[www.magnespress.co.il](http://www.magnespress.co.il)

---

In Memoriam

Dr. Joan Goodnick Westenholz

(1943–2013)

Prof. Roberto Melini

(1960–2013)



# Contents

List of Figures — ix

Preface — 1

## I Prologue

Anne Draffkorn Kilmer

**A Brief Account of the Development of the Field of Music Archaeology — 11**

## II Studies

Bathja Bayer

**The Mesopotamian Theory of Music and the Ugarit Notation –  
a Reexamination — 15**

Anne Draffkorn Kilmer

**Mesopotamian Music Theory since 1977 — 92**

Dahlia Shehata

**Sounds from the Divine: Religious Musical Instruments in the  
Ancient Near East — 102**

Uri Gabbay

**The Balaḡ Instrument and Its Role in the Cult of Ancient Mesopotamia — 129**

Sam Mirelman

**The Ala-Instrument: Its Identification and Role — 148**

Annie Caubet

**Musical Practices and Instruments in Late Bronze Age Ugarit (Syria) — 172**

Ora Brison

**Nudity and Music in Anatolian Mythological Seduction Scenes and  
Iconographic Imagery — 185**

Michael Lesley

**Illusions of Grandeur: The Instruments of Daniel 3 Reconsidered — 201**

John Curtis Franklin

**Greek Epic and *Kypriaka*: Why “Cyprus Matters” — 213**

Mariella De Simone

**Aristophanes’ Phrynichos and the Orientalizing Musical Pattern — 248**

Mira Winer

**Aspects of Music Culture in the Land of Israel during the Hellenistic, Roman and Byzantine Periods: Sephoris as a Case Study — 273**

Antonietta Provenza

**Soothing Lyres and *epodai*: Music Therapy and the Cases of Orpheus, Empedocles and David — 298**

Roberto Melini

**Sounds from under the Ashes: The Music of Cults and Mysteries in the Ancient Vesuvian Land — 340**

### **III Epilogue**

Yossi Maurey

**Ancient Music in the Modern Classroom — 365**



# List of Figures

## Bayer

- Fig. 1:** String List/Mode List (L-St nabnītu/L-Md nabnītu U.3011) — **31**  
**Fig. 2:** Song Catalogue (C-Md//KAR 158) — **33**  
**Fig. 3:** Procedure Text (P-MdSt//U.7/80) — **41**

## Gabbay

- Fig. 1:** Reconstructed evolution from lyre to Early Dynastic III sign BALAĜ: Jestin 1937: no. 45, ix: 2, 5; Deimel 1923: no. 70, i: 8; 1924: no. 138, iii: 5 (after photographs in the Cuneiform Digital Library Initiative: [cdli.ucla.edu](http://cdli.ucla.edu)) — **130**  
**Fig. 2:** The sign ZATU 47 (Green and Nissen 1987: 179) — **130**  
**a:** The sign ZATU 47 (Green and Nissen 1987: 179): Englund 1994: Pl. 15, W 6760,b, ii: 1; Pl. 20, W 6882,g, 1'; Pl. 82, W 9655,ac, i: 4; Pl. 89, W 9656,aa, ii: 3'; Pl. 90, W 9656,ao, i: 1 (after photographs in the Cuneiform Digital Library Initiative: [cdli.ucla.edu](http://cdli.ucla.edu))  
**b:** The sign in W 20266, 4, ii: 8' (after Green and Nissen 1987: Pl. 41)  
**Fig. 3:** Bull-headed lyre sound boxes — **131**  
**a:** after Hartmann 1960: 323  
**b:** after Hartmann 1960: 324  
**c:** after Boehmer 1965: Pl. XXXII no. 385  
**d:** after Hartmann 1960: 330

## Caubet

- Fig. 1:** Cuneiform clay tablet inscribed with a hymn in Hurrian language and musical notation. H. 6 cm. Ugarit, royal palace, staircase 53 (RS 15.30 + 15. 49 + 17. 387). National Museum of Damascus. — **173**  
**Fig. 2:** Statuette of a double-pipe player. Limestone. H. 20.2 cm. Ugarit, Acropole, point 36 (RS 4.464). National Museum of Damascus — **175**  
**Fig. 3:** Statuette of a cymbalist. Hippopotamus ivory. H. 9.4 cm. Ugarit, Sud-Acropole, tomb 3464 (RS 24.400). National Museum of Aleppo — **176**  
**Fig. 4:** Left half of a clapper/magic wand. Hippopotamus ivory. L. 9.4 cm. Ugarit, Sud-Acropole, tomb 3552 in the “diviner’s house” (RS 24.423 + 24.441). National Museum of Damascus. — **176**  
**Fig. 5:** Trumpet in the shape of a ram’s horn. Hippopotamus ivory. H. 5.4 cm. Ugarit, Acropole; western extension of the House of the High Priest (RS 3.436). Louvre — **178**  
**Fig. 6:** Oliphant or flask decorated with a naked goddess. Elephant tusk. H. 60 cm. Ugarit, royal palace, portico 86 in courtyard III (RS 16.404). National Museum of Damascus museum — **180**  
**Fig. 7:** X-ray of elephant tusk (Fig. 6) showing that the natural cavity has been reworked and enlarged at the tip — **180**

## Brison

**Fig. 1:** The Inandik Vase — 188

## Franklin

**Fig. 1:** Kouklia Kalathos (warrior-lyrist) by Glynnis Fawkes — 216

## De Simone

**Fig. 1:** Attic red-figure lekythos, ca. 470–60 BCE — 255

## Waner

**Figs. 1–17:** Photography by Mira Waner. All artifacts recovered in Sepphoris.

**Fig. 1:** A small bronze bell — 277

**Fig. 2:** A simple bell — 277

**Fig. 3:** Synagogue floor mosaic depicting a small semispherical/copula-shaped bell — 277

**Fig. 4:** Oil lamp — 277

**Fig. 5:** Synagogue floor mosaic depicting a large pair of cymbals — 278

**Fig. 6:** Triclinium floor mosaic depicting double auloi — 278

**Fig. 7:** Triclinium floor mosaic depicting double auloi — 278

**Fig. 8:** Triclinium floor mosaic depicting double auloi — 278

**Fig. 9:** Triclinium floor mosaic depicting double auloi — 278

**Fig. 10:** Triclinium floor mosaic depicting double auloi and tympanum — 278

**Fig. 11:** A bronze figurine of Pan or of a satyr holding a syrinx — 279

**Fig. 12:** A large syrinx depicted in a medallion on a mosaic floor — 279

**Fig. 13:** Synagogue floor mosaic depicting two slightly curved horns — 279

**Fig. 14:** Panels depicting *shofarot* — 279

**Fig. 15:** Engraving on a copper seal depicting a *shofar*, *menorah*, *mahta*, *lulav* and an *etrog* — 280

**Fig. 16:** A three-stringed lyre depicted on a mosaic — 280

**Fig. 17:** A seven-stringed, square-shaped lyre depicted on a mosaic — 280

## Melini

**Fig. 1:** The Vesuvius from the forum of Pompeii — 340

**Fig. 2:** Some *tibiae* preserved in the Naples National Archaeological Museum — 341

**Fig. 3:** Nine *tibiae* recovered in the Villa of Fondo Prisco, near Pompeii — 341

**Fig. 4:** Bronze *cymbala* from Pompeii — 342

**Fig. 5:** *Cymbala* and other objects related to the cult of Dionysus (wall painting from the Praedia of Julia Felix, Pompeii) — 342

**Fig. 6:** Pan and Daphnis (marble statue in the Naples National Archaeological Museum, Farnese Collection — Sculptures and Baths of Caracalla) — 343

**Fig. 7:** Representation of a sacrifice (marble relief on the altar in the temple of the *Genius Augusti*, Pompeii; in situ) — 344

**Fig. 8:** Erotes playing a *cithara* (wall painting from Herculaneum) — 345

**Fig. 9:** Representation of a sacrifice (wall painting in the *lararium* of a house in Pompeii Regio VIII 2; in situ) — 345

- Fig. 10:** Hermes with female figures, one holding a *lyra* (wall painting from Villa San Marco, Stabiae) — 346
- Fig. 11:** Apollo playing a *cithara* near an omphalos (wall painting in Casa dei Vetii, Pompeii; in situ) — 347
- Fig. 12:** Apollo Citharoedus (wall painting from Moregine, near Pompeii) — 347
- Fig. 13:** Achilles and Chiron (wall painting from Herculaneum) — 348
- Fig. 14:** Orpheus (wall painting on the façade of the Casa di Orfeo, Pompeii; in situ) — 349
- Fig. 15:** The triumph of Dionysos (wall painting in Casa di M. Lucretius Fronto, Pompeii; in situ) — 350
- Fig. 16:** Scene of cult for Dionysos (marble relief in the Naples National Archaeological Museum, Farnese Collection) — 350
- Fig. 17:** Flying maenads (wall painting from the so-called Villa di Cicerone, Pompeii) — 351
- Fig. 18:** Silenus playing a *lyra*, accompanied by a young *syrix* player (wall painting in Villa dei Misteri, Pompeii; in situ) — 352
- Fig. 19:** Possessed woman holding *cymbala* (wall painting in Villa dei Misteri, Pompeii; in situ) — 352
- Fig. 20:** Symbols of the cult of Sabatius (reliefs on a fictile vase, from Casa dei Riti magici, Pompeii) — 353
- Fig. 21:** *Memento mori* (relief on a silver cup, from Villa di P. Fannius Synistor, Boscoreale) — 353
- Fig. 22:** Procession for Cybele (wall painting on the façade of the *officina coactiliaria* in Via dell'Abbondanza, Pompeii; in situ) — 355
- Fig. 23:** Theatrical scene with street musicians (mosaic from the so-called Villa di Cicerone, Pompeii) — 356
- Fig. 24:** The modern playing of *tammorra* — 356
- Fig. 25:** An Isiac ceremony (wall painting from Herculaneum) — 357
- Fig. 26:** Bronze *sistrum* from Pompeii — 358
- Fig. 27:** The ruins of the temple of Isis, Pompeii — 359
- Fig. 28:** Scenography of the first representation in the Teatro alla Scala (Milan, 1816) of Mozart's *Die Zauberflöte* — 359



## Preface

This volume constitutes the proceedings of the conference entitled *Sounds from the Past: Music in the Ancient Near Eastern and Mediterranean Worlds*, which was held at the Bible Lands Museum Jerusalem (BLMJ) on 7 and 8 January 2008. The conference and the present volume are the fruits of the collaboration between the Department of Musicology and the Jewish Music Research Centre (JMRC), both at The Hebrew University of Jerusalem, and the BLMJ. The conference was held in conjunction with the opening of the exhibition *Sounds of Ancient Music* on Monday, 7 January 2008. This innovative exhibition, curated by Joan Goodnick Westenholz, was the springboard that led to the conference and this subsequent volume. *Sounds of Ancient Music* was open until December 2008 and viewed by thousands of visitors. We would like to take this opportunity to acknowledge the help and support we received from all members of the museum staff, its founder, Batya Borowski, and its director, Amanda Weiss, in creating this exhibition and initiating the conference.

A basic and universal element of human culture, music was one component of the cultural continuum that developed in the contiguous civilizations of the ancient Near East and of Greece and Rome. Along this continuum, musical ideas and systems moved westward, while being reformulated in each culture along the path from the plain of Mesopotamia to the shores of the Aegean and Adriatic Seas. The main objective of the exhibition was to survey the range and gamut of this symbiosis, as well as to scrutinize specific geographical areas along this continuum. The primary importance of ancient Hebrew, Near Eastern, Egyptian, Greek and Roman civilizations to the development of later musical cultures (especially Persian, Arabic and Western European) has been repeatedly acknowledged throughout history from the early Church Fathers, through medieval philosophers and music theorists, to the beginnings of modern music historiography in the eighteenth century. The exhibition had as its goal to present these ancient musical cultures with all their resonances and reverberations in order to provide the public with a vivid impression of the rich soundscapes of ancient civilizations.

*Sounds of Ancient Music* opened with an overview of the typology of musical instruments, inspired by the first reference to music in the Bible in which the invention of musical instruments is placed in the dawn of time, in the antediluvian period: “His brother’s name was Jubal, he was the ancestor of all who play the lyre and the pipe” (Gen. 4:21).<sup>1</sup> This was followed by a survey of the place and

---

<sup>1</sup> The translation given here can be found in *Tanakh, The Holy Scriptures, The New JPS Translation* (The Jewish Publication Society 1998); *The Koren Jerusalem Bible* (Fisch 1992); and the 1971 *Revised Standard Version*. The musical instruments, *kinnor* and *uggav* were previously identified

function of music in the royal court. Various ancient kings prided themselves on their musical skills. As the ancient king of Ur from the late third millennium BCE proclaims: “I, Šulgi, king of Ur, have also devoted myself to the art of music” (A praise poem of Šulgi, *Šulgi B* 154f.) and “May my hymns be in everyone’s mouth; let the songs about me not pass from memory” (A praise poem of Šulgi, *Šulgi E* 240f.). From the royal court, the exhibition looked at various villages and towns of different periods, where music was an essential part of daily life in the home and the workplace, as entertainment and as lamentation. The next subject was music in mythology, for in the ancient pagan world, music was believed to be a gift given by the gods to humanity. This much was acknowledged in numerous accounts, such as in the following Greek Homeric Hymn: “It is through the Muses and Apollo that there are singers upon the earth and players upon the lyre” (*Hymn. Hom.* 25.2f.). The final section examined the temples of yore. The culmination of the exhibition was to the Second Temple of Jerusalem; here we attempted to evoke the period when the sounding of a trumpet from the Temple Mount ushered in the Sabbath.

The goal of the conference was to examine the formation and function of ancient musical instruments, their sounds and their place and purpose in the lives of the diverse peoples in the ancient Near Eastern and Mediterranean worlds, including Mesopotamia, Egypt, Greece and Rome. It consisted of two days of lectures and presentations by scholars working in the fields of Musicology, Assyriology and Archaeology, and included keynote lectures given by Prof. Anne Kilmer and Prof. John C. Franklin.

Several sessions of the conference were devoted to the role that music played in temple cults and in the theology of ancient societies. The power to move the human spirit has always been attributed to music and it was thus of considerable importance in the liturgy of the temple service. In every temple in the ancient world, from Sumer to Jerusalem and beyond, communication with the divine was expressed through music, song and dance. The sacredness of music is exemplified by the deified instruments of the ancient Mesopotamian worship. In the Greek world, the philosophical system built on the music of the spheres, credited to Pythagoras, became the foundation on which most cosmological systems were built for the next two thousand years.

One session was devoted to music in ancient Israel, from both an archaeological and a textual perspective. This session bridged the gap between the papers on ancient Near Eastern music and those on the classical world. It was a major

---

as the “harp and the organ” (cf. King James and Douay-Rheims). On the *kinnor*-lyre, see Braun’s (2007a: 15) discussion in the catalogue *Sounds of Ancient Music*, and for the *uggav*-pipe, see Braun 2007b: 17.

goal of our conference to compare and contrast the music of the Israelites and the Temple with that of the ancient world.

Similarly, the music of the Israelites in their historical context within antiquity has been a priority of the JMRC since its founding in 1964. It was only natural, then, that when the BLMJ approached the JMRC with the idea of sharing the organization of the academic conference associated with the exhibition *Sounds of Ancient Music*, the response would be a most positive one. Following the conference, the BLMJ and the JMRC agreed on a joint publication of a collection of articles based on the conference. Albeit most studies included in this volume do not offer any direct insights into the music of ancient Israelites/Jews, it was decided that they would be published as a volume of *Yuval — Studies of the Jewish Music Research Centre* — for they illuminate the background against which Israelite and Jewish musical cultures developed in early and late antiquity.

Perceived today from a critical perspective, the inclusion of the music of the ancient Israelites in the original plans of the JMRC can be interpreted as an acceptance of a grand narrative, fueled since the late nineteenth century by modern Jewish nationalism, comprising a unilinear history of “Jewish music.” This narrative endorsed the continuity of transmission of certain musical patterns among Jews from antiquity into the contemporary period, applying this concept mostly to liturgical practices and embodied in the reading patterns of Scripture.

An intellectual force behind the study of musical antiquity among the Israelites was Bathja Bayer, one of the first researchers of the JMRC and former Head of the Department of Music of the Jewish National and University Library (JNUL). Bayer envisioned an innovative contextual approach to the study of the music of ancient Israel/Palestine, juxtaposing scholarship on biblical philology with the then-incipient field of musical archaeology. She articulated her ideas in very few publications, of which the most succinct ones are the short articles titled *Biblical Period* and *Second Temple* that constitute the first section of the entry “Music” in the 1972 edition of the *Encyclopedia Judaica* (see also the 2007 edition, volume 14: pp. 640–643, available online). Bayer suggested that all musical data transmitted by the biblical text had to be examined vis-à-vis the non-Israelite cultures in the midst of which the people of Israel resided.

Mesopotamian civilization was of particular importance for the understanding of the musical pageantry around the Jerusalem Temple as it provided the context in which biblical texts about music were written. To this topic, Bayer dedicated a full monograph titled *Mesopotamian Theory of Music and the Ugarit Notation* on which she worked for most of her scholarly career. The monograph was intended to be published as the second volume of JMRC’s monograph series — *Yuval*, founded by Israel Adler in 1974. After the monograph was completed and as it was being prepared for publication, Bayer withdrew it for further revi-

sions and updates, which, unfortunately, were never completed when she died in 1995. The whereabouts of her manuscript were unknown, and it was only several years later that it resurfaced at the JNUL in a box containing more of her written materials. Finally, it was the conference *Sounds from the Past* that provided us with the appropriate opportunity to publish Bayer's manuscript and do justice to her pioneering contribution while filling a thirty-year-old gap in the inventory of publications of the JMRC.

The decision to publish Bayer's manuscript was not simple. In addition to the problems created by the physical state of a pre-computer era manuscript typewritten on deteriorating paper, there were manifold additions and modifications made by Bayer that were added on manuscript notes, as well as on tiny pieces of paper cut and pasted over the text or stapled to it. We assume that several of these pieces of paper fell off the manuscript once the glue was dry and were lost. In editing this manuscript, there was also the issue of language. Bayer wrote this work in her sophisticated English, which, nevertheless, was heavily influenced by her mother tongue, German. Furthermore, her work became outdated as research in the field of music from ancient Mesopotamia developed impressively in the past two decades. An updated version was needed, and Prof. Anne Kilmer graciously agreed to take on the task of revising the new Assyriological sources and addressing the recent publications on this subject. The result of this editing process is a historiographic summary of the development of the study of musical documentation from ancient Mesopotamia. It presents Bayer's search to uncover and comprehend the earliest cuneiform sources that reveal an orderly organized system of diatonic scales, depending on the tuning of stringed instruments in alternating fifths and fourths. These sources extend our knowledge of the history of the diatonic scale back over a thousand years.

Faithful to Bayer's contextual and multidisciplinary approach, this volume of *Yuval* endorses the idea that a better understanding of biblical and post-biblical evidence about the music of the Israelites/Jews of early and late antiquity is possible only by reading it against the music of the surrounding cultures, as suggested by recent research (Braun 2002; Burgh 2006). Thus, while the mandate of the JMRC to investigate the music of the ancient Israelites remained steadfast since the work initiated by Bayer in the mid-1960s, the present publication represents a step forward.

The studies included in this volume further clarify the context in which the music of the Israelites in biblical times as well as the emergent post-biblical Jewish music culture in the Greco-Roman milieu of late antiquity were embedded. Attitudes toward music in the Mishnah and later in the Talmud cannot be detached from Greco-Roman (pagan and Christian) and Safavid Persian musical practices. The issue at stake is not always the "influence" of these cultures on the



music of the Jews but rather the consolidation of various Jewish musical selves in dialogue with and in contrast to the soundscapes of the surrounding societies. Separating the Jewish soundscape from that of the gentiles engendered diverse attitudes in early rabbinical Judaism, ranging from the embracing of the sounds of the other to their flat rejection. For example, Jewish attitudes to instrumental music and to the voice of women in post-biblical rabbinical literature can now be reconsidered against the Greco-Roman musical practices well known to the Jews, and the quest for differentiating the Jewish soundscapes from those of the pagan temples and places of entertainment of the late Roman Empire (Friedheim 2009). The article by Mira Waner included in this volume continues this line of inquiry with special focus on the findings of the impressive excavations in Sepphoris, an article in which she expands earlier discussions in this field by her and other scholars (Waner 2007; see also Weiss 2005).

Another objective — also promoted and informed by Bathja Bayer (1968a, 1968b, 1981) — the identification and description of the musical instruments mentioned in biblical and post-biblical texts, finds extensive expression in this volume. Modern studies have been prolific in expanding the study of this subject.<sup>2</sup> Bayer's work on the biblical musical instrumentarium is echoed in several studies included in this volume: Annie Caubet on the musical instruments in Ugaritic culture, Uri Gabbay on the *balaḡ* in ancient Mesopotamia, Michael Lesley on the instruments of the Persian orchestra mentioned in chapter 3 of Daniel,<sup>3</sup> Sam Mirelman on the *ala* and Dahlia Shehata on musical instruments in ancient Near Eastern religious contexts.

Other studies appearing in this volume address a wide spectrum of issues. Ora Brison examines the relation between music and seduction, Mariella de Simone discusses the problem of Orientalism, John Franklin contextualizes the epic in its musical environment, Roberto Melini relates the role of music in religious cults and mysteries, and Antonietta Provenza evaluates music therapy.

Finally, the successful realization of this volume is the result of the input of three persons without whom it would not have seen the light of day. We would first like to express our heartfelt indebtedness to Carolyn Budow Ben-David who organized the myriad details of this publication, oversaw all the logistics of the

---

<sup>2</sup> These identifications are based on linking the biblical names to the contemporary musical instruments of the areas in which the scholars lived. See, for example, the identifications of musical instruments by Saadia Gaon in his Judeo-Arabic translation of the Bible (Shiloah 2004), those in a Moroccan Judeo-Arabic translation of the Bible (Bar-Asher 1998) and the identifications in Maimonides' commentary of the Mishnah (Seroussi 2003). Besides the works by Braun (2002) and Burgh (2006) mentioned above <sup>2</sup>, see also Jones 1986, 1987; Mitchell 1992; Škulj 1998.

<sup>3</sup> Probably one of the most studied biblical texts describing musical instruments. See, for example, Dyer 1990; Avalos 1991; Mitchell 1999.

communication between authors and editors, kept us all working on schedule and provided unceasingly of her energy to the project. We also must give due credit for the indispensable help provided by Inbal Samet who edited and reviewed all the English text for this volume and whose efficiency and accuracy have been most valuable. Furthermore, we would also like to acknowledge the arduous work of Tali Shach on converting the typed manuscript of Bathja Bayer's article into a digital article.

Work on the editing of this volume started in 2008 in the aftermath of the conference *Sounds from the Past: Music in the Ancient Near Eastern and Mediterranean Worlds*. The process of preparation of the final manuscript was lengthy and complex; for this reason *Music in Antiquity* reflects the state of scholarship on the pertinent subjects up to 2010. Further bibliographical updates would have delayed the publication unnecessarily.

We would like to express our profound appreciation to all those who made the publication of this volume possible. To the staff of the Jewish Music Research Centre of the Hebrew University in Jerusalem, the editorial board of *Yuval: Studies of the Jewish Music Research Centre* and to the staff of Magnes Press we are grateful for their dedication and support. Grants from the Faculty of Humanities of the Hebrew University of Jerusalem and from the Cases-Hirsch Fund at the Jewish Music Research Centre facilitated the completion of the editing of this book. Finally, the publication of this volume could not have been possible without the enthusiastic and highly professional support of De Gruyter and its staff, in particular Bettina Neuhoff and Andreas Brandmair.

Joan Goodnick Westenholz, Yossi Maurey, Edwin Seroussi, editors

## References

Avalos, H. I.

1991 The Comedic Function of the Enumerations of Officials and Instruments in Daniel 3. *Catholic Biblical Quarterly* 53(4): 580–588.

Bar-Asher, M.

1998 Notes sur le vocabulaire musical dans le Sharh biblique marocain. *Journal Asiatique* 286(1): 55–83.

Bayer, B.

1968 Neginah ve-zimrah. In: *Encyclopedia Miqra'it*, vol. 5: 755–782. Jerusalem (Hebrew).

1968 The Biblical 'Nebel'. In: *Yuval: Studies of the Jewish Music Research Centre*, vol. 1, ed. I. Adler, H. Avenary and B. Bayer, 89–131. Jerusalem.

1981 Ancient Musical Instruments. *Biblical Archaeology Review* 8(1): 20–36.

- Braun, J.  
2002 *Music in Ancient Israel/Palestine: Archaeological, Written, and Comparative Sources*. Grand Rapids.
- 2007a Kinnor. In: *Sounds of Ancient Music*, ed. J. Goodnick Westenholz, 15. Jerusalem.
- 2007b Uggav. In: *Sounds of Ancient Music*, ed. J. Goodnick Westenholz, 17. Jerusalem.
- Burgh, T.  
2006 *Listening to the Artifact: Music Culture in Ancient Palestine*. London.
- Dyer, C. H.  
1990 The Musical Instruments in Daniel 3. *Bibliotheca Sacra* 588: 426–436.
- Fisch, H., ed.  
1992 *The Koren Jerusalem Bible*. Jerusalem.
- Friedheim, E.  
2009 On the Question of the Treatment of Music in the Jewish Society of the Second Temple, Mishnaic and Talmudic Period. *Cathedra* 132: 55–76 (Hebrew).
- Goodnick Westenholz, J. ed.  
2007 *Sounds of Ancient Music*. Jerusalem.
- 1998 *Tanakh: The Holy Scriptures, the New JPS Translation*. Philadelphia.
- Jones, I. H.  
1986 Musical Instruments in the Bible. *Bible Translator* 37(1): 101–116.
- 1987 Musical Instruments in the Bible. *Bible Translator* 38(1): 129–143.
- Mitchell, T. C.  
1992 The Music of the Old Testament Reconsidered. *Palestine Exploration Quarterly* 124(2): 124–143.
- 1999 And the Band Played On... But What Did They Play on? Identifying the Instruments in Nebuchadnezzar's Orchestra. *Bible Review* 15(6): 32–39.
- Seroussi, E.  
2003 More on Maimonides on Music. *Zutot* 2: 126–135.
- Shiloah, A.  
2004 Musical Concepts in the Works of Saadia Gaon. *Aleph* 4: 265–282.
- Škulj, E.  
1998 Musical Instruments in Psalm 150. In: *The Interpretation of the Bible: The International Symposium in Slovenia*, ed. J. Krasovec, 1117–1130. Sheffield.
- Waner, M.  
2007 Music Culture in Roman-Byzantine Sepphoris. In: *Religion, Ethnicity, and Identity in Ancient Galilee; A Region in Transition*, ed. J. Zangenber, H. W. Attridge and D. B. Martin, 425–447. Tübingen.
- Weiss, Z.  
2005 *The Sepphoris Synagogue: Deciphering an Ancient Message through Its Archaeological and Socio-historical Contexts* (with contributions by Ehud Netzer et al.). Jerusalem.