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978-0-521-51764-5 - Ancient Greek Music: A New Technical History

Stefan Hagel

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## ANCIENT GREEK MUSIC A NEW TECHNICAL HISTORY

This book endeavours to pinpoint the relations between musical, and especially instrumental, practice and the evolving conceptions of pitch systems. It traces the development of ancient melodic notation from reconstructed origins, through various adaptations necessitated by changing musical styles and newly invented instruments, to its final canonical form. It thus emerges how closely ancient harmonic theory depended on the culturally dominant instruments, the lyre and the aulos. These threads are followed down to late antiquity, when details recorded by Ptolemy permit an exceptionally clear perspective on the harmonic relations underlying the extant melody fragments. Dr Hagel discusses the textual and pictorial evidence, introducing mathematical approaches wherever feasible, but also contributes to the interpretation of instruments in the archaeological record and occasionally is able to outline the general features of instruments not directly attested. The book will be indispensable to all those interested in Greek music, technology and performance culture and the general history of musicology.

STEFAN HAGEL holds a research post at the Commission for Ancient Literature of the Austrian Academy of Sciences. His interests focus on ancient Greek music and metre, including reconstruction of instruments and performance techniques. He also creates dedicated software for scholarly purposes and his *Classical Text Editor* received the European Academic Software Award.

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STEFAN HAGEL

*Austrian Academy of Sciences*



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ἐπὶ κύδει σοῦ πατρός      καὶ κάρτει σῶ μάκαρ  
πάλιν ὕμνοπολεύσω      πάλι σοι μέλος ᾄσω  
τάχα καὶ κιθάραν πάλιν      πανακήρατον ἀρμόσω.

(Synes., *Hymn* 7)

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<i>AGM</i>	M. L. West, <i>Ancient Greek Music</i> . Oxford 1992.
<i>Anecd. Stud.</i>	<i>Anecdota varia Graeca musica metrica grammatica</i> . Ed. G. Studemund, Berlin 1886.
<i>CIL</i>	<i>Corpus Inscriptionum Latinarum</i> . Berlin 1862–2003.
<i>DAGM</i>	E. Pöhlmann/M. L. West, <i>Documents of Ancient Greek Music</i> . Oxford 2001.
<i>DAM</i>	E. Pöhlmann, <i>Denkmäler Altgriechischer Musik</i> . Nuremberg 1970.
<i>FdD III</i>	<i>Fouilles de Delphes, III: Épigraphie</i> . Paris 1909–85.
<i>GMW I</i>	A. Barker, <i>Greek Musical Writings I. The Musician and his Art</i> . Cambridge 1984.
<i>GMW II</i>	A. Barker, <i>Greek Musical Writings II. Harmonic and Acoustic Theory</i> . Cambridge 1989.
<i>KAR</i>	E. Ebeling, <i>Keilschrifttexte aus Assur religiösen Inhalts I/II. Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft</i> 28 (1919); 34 (1923).
<i>LSJ</i>	H. G. Liddell/R. Scott, <i>A Greek-English Lexicon</i> . 9th edn with revised supplement, Oxford 1996.
<i>MSL 16</i>	<i>Materials for the Sumerian Dictionary</i> 16. The Series SIG. <sup>7</sup> .ALAN = <i>Nabnitu</i> . Ed. I. L. Finkel with collab. of M. Civil. Rome 1982.

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## Preface

But *Lydia* is in Dorian. There are serious puzzles here...

(A. Barker, *GMW* II: 360)

Originality is something which we often meet in our studies of Greek music, but only too frequently it is associated with bad scholarship and freakish judgment.

(R. P. Winnington-Ingram 1958: 244)

The serious puzzles mentioned by Andrew Barker do not concern some remote niche of ancient musical studies; they have partly obscured the significance of what can rightly be called the most practical chapter of ancient music that has come down to us. This may seem perplexing after centuries of almost unbroken interest in the topic, during which many eminent scholars have devoted their genius to elucidating its more difficult aspects. The other faction, that one referred to by R.P. Winnington-Ingram, can only partly be blamed for this: those who have been considering ancient music the convenient playground for original ideas of their own, a field reasonably secure from the danger of refutation by new facts. Admittedly, some unfounded opinions, uttered enthusiastically long ago, still ripple the surface of scholarly discourse; but sober judgement now dominates it.

Even so, how can one hope to add something worthwhile to a discussion that has been based on the ever-same pieces of evidence for such a long time?

Several pitfalls are to be avoided. The most important is that of finding a possible explanation for some aspect of the evidence, and subsequently forcing the rest of it to compliance, or where this proves wholly impossible, disregarding it. We must be especially careful to acknowledge the complexity of a musical culture synchronically and diachronically, its richness in different aspects (cf. Solomon 1984: 242–4). Therefore, this book does not claim to present some new key that unlocks the doors to all secrets. Instead, it keeps very much to the paths that have been opened by previous research,

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while trying to fit some previously unconnected pieces together, and in some respects suggesting (I hope) a more coherent view.

Secondly, classical music archaeology and archaeomusicology extend into fields that are usually covered by different experts: philology and archaeology, music history and ethnomusicology, all play their distinctive roles. Few researchers are at home in all of these (the present author is certainly not), so there is considerable danger of neglecting those with which one is less familiar. Sadly, one witnesses the forming of scholarly traditions largely unconnected to each other: even nowadays works on ancient music are published that take no account even of the most essential contributions by scholars of other departmental denomination; of course there are also language barriers.

Furthermore, the discourse about ancient music has often been overshadowed by an evolutionary model that would be unacceptable in ethnomusicology: the assumption that Greek music evolved from 'primitive' origins to high complexity. This approach does not become truer because it was already adopted by the Greeks themselves, who hypothesised first inventors for almost everything, thus also deducing contemporary music from supposed simplistic instruments and musical styles by gradual additions. Few of these speculations rested on evidence of any kind, and it is of the essence to consider the nature of possible channels by which genuine information about earlier music could reach the first writers of antiquarian interest at all: relics of old styles in mostly cultic context, iconography, and passages in literary works, not a few of which must have been almost as arcane to the fourth century BC as they are to us. Only from one passage, seemingly from Aristoxenus' pen, does the principle transpire which underlies serious ethnomusicological research nowadays: that according to well-applied information-theoretical standards, all musical cultures should be considered as, more or less, on an equal footing, even if complexity is achieved within different aspects (cf. e.g. Brandl 2005: 11; of course considerable variance must be allowed in relation to the amount of time that individuals spend on acquiring and exercising musical skills.):

εἴ τις καὶ περὶ τῆς ποικιλίας ὀρθῶς τε καὶ ἐμπείρως ἐπισκοποίη, τὰ τότε καὶ τὰ νῦν συγκρίνων, εὖροι ἂν ἐν χρήσει οὔσαν καὶ τότε τὴν ποικιλίαν.

(ps.-Plut., *Mus.* 1138b)

If one undertook a straight and experienced investigation of complexity, comparing former times with nowadays, they would find that complexity was also part of former practice.

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This is not to imply that there was no evolution, of course; much of the present book deals with processes of transformation. But what are the ‘origins’ for students of Greek music were certainly not primitive, nor were they origins in any real sense – in this context the chapter on ‘Progress’ in Sachs (1962: 210–22) is still recommended.

There are a few issues of methodology, which are crucial for many of the conclusions presented here, and which deserve a word beforehand. Above all, I have found it essential to be acquainted with the principal instruments of classical antiquity in a very material way. Most of what I have to say on lyres and auloi is also based on practical experience with building and especially playing those instruments in various forms.

Secondly, I have employed computer techniques wherever feasible, designing special software to approach specific questions whenever necessary. In some cases this naturally led to the application of testing statistics. This kind of inference, although the basis of many sciences, is still often suspected in classical studies. Here is therefore a short guide on how to deal with significance levels. If they are well below 5 per cent it is not a good idea to resort to a strategy of “I cannot do such calculations; hence I do not believe what they say”. Instead, one should accept that there is some significance in the counted or measured facts, i.e. that very, very probably, some causal connection exists between the quantified facts. But it is also not a good idea to accept an author’s conclusions solely because there are figures. What is significant there might be something other than the author thinks; the numerical tendencies might result from just another mechanism than that considered (an often cited example: the statistically valid correlation between an increase of the number of TV sets and of the average life span in many countries during the last decades does not imply that watching TV will preserve you from an untimely death). But when no such alternative explanation can be found, it is a good idea after all not to reject the author’s conclusions rashly.

The nature of the argument prohibited a nicely systematic arrangement of the chapters. I found it preferable, for instance, to start with the evaluation of mainly the internal evidence of ancient musical notation, even if some of the conclusions that can be reached in this way must be qualified later. In this way, I hope, the reader will find it easier to assess the plausibility of the single points; a purely chronological treatment would inevitably obscure the argument. It is also not the intention of this book to provide a general introduction to its topics for the entirely uninitiated; fortunately there are other works that serve this purpose, which must be consulted by

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anyone concerned with our subject anyway, and to which I therefore often refer; above all Martin L. West's *Ancient Greek Music* and Andrew Barker's *Greek Musical Writings*.

The reader will encounter an abundance of graphical diagrams, which I hope illuminate the point made more clearly than would many paragraphs. Regarding their interpretation, suffice it to say that if pitch is involved, it ascends either from left to right, or from bottom to top, in accordance with modern Western intuition. Where modern note names refer to absolute pitch and where they merely indicate relative pitch relations will become clear from the context. In the latter case, solmisation syllables would be preferable from a methodological viewpoint; but in many countries scholars are not generally familiar with them, and when it comes to sharps and flats their systematic advantage is practically lost, too.

For the rendition of ancient melody fragments, I have abstained from stave notation, whose visual focus on thirds obscures the inherent structures, which divide the octave mostly into fourths and fifths. Instead, melodic motion is printed in lines undulating within a grid of semitones, reflecting as much of the pitch relations as we can read from the ancient notation. Note onsets are marked by circles.

Most Greek and Latin passages are translated, except where their meaning is sufficiently explained in the text and additional information can be gained only from reading the original wording. The transcription of Greek words takes vowel length and accents into regard (oxytones, however, are rendered with an acute, dismissing the sentence-internal graphical variant of the grave), but renders  $\upsilon$  as 'u' solely within diphthongs; elsewhere the traditional 'y' is employed. In a work on music especially, hard-core spellings such as *'hyperlúdios'* side by side with 'Hyperlydian' etc. may easily appear merely hyper-ludicrous. Even so, the transcription is unambiguous, whereas the duplicate rendition of ' $\upsilon$ ' reflects its differentiated pronunciation from classical Attic onwards.

My thanks go out to many kind people who took part in the long process that finally led to the publication of this book. A lot of them I would not have met, were it not for the International Study Group for Music Archaeology, founded and inspired by Ellen Hickmann. There I encountered that amalgamation of scholarly debate, good company, and music-making that made the ISGMA meetings so unique for many: John Curtis Franklin, in many hours of discussion, opened my eyes to important aspects I was in the danger of overlooking; Stelios Psaroudakēs was always extremely generous in sharing his data and expertise, and also in accepting my pipes as an ac-



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companiment to his voice; of Eleonora Rocconi's kindness no mention need be made to those lucky enough to know her. Dahlia Shehata proved superbly helpful in Assyriological matters, patiently enduring my ignorance. Graeme Lawson cannot go unmentioned either, his Anglo-Saxon thumb setting standards for everybody concerned with ancient lyres.

On various occasions I had the opportunity to discuss special points with other outstanding experts in the field. My thanks are especially due to Andrew Barker, Egert Pöhlmann and Martin L. West. At the same time, I want to express my gratitude to the anonymous reviewers. One of them provided me with fifteen pages of invaluable advice; for the few instances where it did not overcome my obstinacy I must take full responsibility.

My research was only made possible by the lasting support of the Austrian Academy of Sciences (partly by its APART programme), and Christine Harrauer's pleasant matronage in the Commission for Ancient Literature. As one of its members, Cornelia Römer provided extremely welcome help especially in, but not restricted to, papyrological matters.

Without Scott Wallace and his workshop I would hardly have embarked on building a cithara; to his expertise with strings, wood, ivory and virtually everything one would like to exchange opinions about (he has also edited some of my English), combined with admirable patience in teaching the clumsy, I owe very much. When the Cambridge University Press kindly accepted this book for publication, the task of eliminating its stylistic atrocities was assumed by Linda Woodward, who made the process of being copy-edited a wholly enjoyable experience.

Often discussions with colleagues who are specialising in entirely different fields are of the highest value: among others I thank especially Hildegund Müller for her vivid interest in remote topics also; Birgitta Eder kindly shared her profound knowledge of Hellenic culture in and after the Mycenaean age. Johannes Divjak's competent helpfulness in computer issues relieved me of some of the burdens of the philologist's daily life.

Georg Danek has been accompanying my musical studies from the start; without his encouragement this new field of research would not have established itself in Vienna.