Universal Multiple-Octet Coded Character Set
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Title: Preliminary Proposal to encode Metrical Symbols
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Replaces: WG2 N4073/4074 and L2/11-210 "Third revised proposal to encode Metrical Symbols and Related Characters"

To address the concerns raised in WG2 N4047 = L2/11-128 " Comments on L2/10-358R (N3913) Proposal to encode Metrical Symbols and related characters" (which referred to the predecessor document of WG2 N4073 = L2/11-210), the authors have decided:

- *To enable the discussion of this proposal and the concerns raised in WG2 N4047 by a larger group of experts, the status of this proposal is reset to "preliminary".*
- *All "related characters" contained in the predecessor document are separated into other proposals. Thus, the further discussion of this proposal can be confined to metrical symbols proper.*
- *The proposed code points in this document version are not changed (even if they are used for other characters in the meantime), thus the cross reference to WG2 N4047 is maintained.*
- *Some additional characters suggested in private communication were added even when no evidence was found, as such can be added during the further processing of this proposal.*
- *The text regarding the metrical symbols proper is unchanged in general.*
  The addressing of the concerns raised in WG2 N4047 is left to the further work on this proposal.

1. Introduction

Metrics is an integral element of every philological discipline, particularly of the Classics. The etymology of the name indicates that it is the „art of measuring“, namely the regulated sequences of long and short syllables which form poetical language in classical Greek and Latin literature. In the varied times and literary genres, the connection of different syllable quantities to verses and of verses to strophes resulted in a large number of metrical systems: e.g. Homer wrote dactylic hexameters, Sappho aeolic poems, the tragedians like Sophocles iambic trimeters for spoken verses and many different systems like anapaests or dactyloepitrites for the choral songs.

Now in the analysis of this variety of meters, not only long and short positions had to be denoted, it was for instance also necessary to mark the position where either long or short element was permitted, possibly with the distinction of the preferred quantity, where substitution of elements was permitted or an expected element was missing, where were the pauses in a verse, the end of a strophe, the avoidance of word-ending at a certain position in a verse, etc. The systematic scholarly investigation and interpretation of those metrical problems was inaugurated at the beginning of the 18th century by the famous Cambridge Classicist Richard

Bentley who was the first to detect and describe the form and working of more complicated recurring metrical patterns in poetic Greek and Latin language. The Classics of the 19th century, especially in Germany, pushed metrical research to the highest level, when authorities like G. Hermann, R. Westphal and U. v. Wilamowitz-Moellendorff taught to use metrics as an essential element in the constitution of text editions and in the interpretation of classical literature like the epics of Homer, the lyric poems of Sappho, Pindar and Horatius, the Greek Tragedies by Aeschylus, Sophocles and Euripides, the Comedies of Aristophanes and Plautus and even the Oratory of Demosthenes and Cicero, who also used certain metrical formulas to close their sentence constructions (prose rhythm). The masters in the 20th century, like P. Maas, B. Snell and M. L. West, refined the methods of metrical analysis and disseminated reflection and research on metrics so that today it is a crucial prerequisite and component in studying, editing and interpreting texts, in the Classics and in any modern philology.

Thus, it is obvious that nowadays every scholar of literature, particularly of the classical texts, needs to have available the proper instruments to display, work with and edit metrical signs. As until now only the very basic metrical signs have existed in Unicode, the situation for students and scholars is more than unsatisfying facing the fact that it is often required to design or write metrical schemes for seminars, lectures, articles and books. It is not possible to make accessible in the Internet the sophisticated and influential metrical writings of the great masters, apart from laborious scans or photos with which one can hardly work. Desperately needed is a complete set of Unicode signs for metrical symbols that would enable students, scholars and writers to use metrical literature in the Internet and to compose, distribute and publish up-to-date and current research.

2. Encoding Considerations

The basic metrical symbols are the longum – and the breve ⏑, denoting long and short syllables in a verse, the length of the thus denoted long syllables being the double of the short ones. Also, there are different symbols for dividing the flow of syllables into units of different hierarchical levels (like verses and strophes).

However, verse types (like the hexameter known from classical works like Homer's Odyssey) are not defined by fixed sequences of long and short syllables; in fact, they are defined by patterns where different sequences are allowed at single places, which will occur with different probabilities (like "typical" vs. "exceptional" occurrences). These are denoted by stacking the basic symbols (included pairs of shorts which resemble one long); from bottom to top with decreasing probability. Also, there are special symbols for special cases, like the anceps × for denoting "several possibilities" or symbols meaning "speech is not metrical here".

> *In a certain sense, the set of metrical symbols can be regarded as a script of its own, with its own rules and its own special appearance. Therefore, unifications of metrical symbols with existing characters have to be selected with care, like it is done for characters of any newly encoded script.*

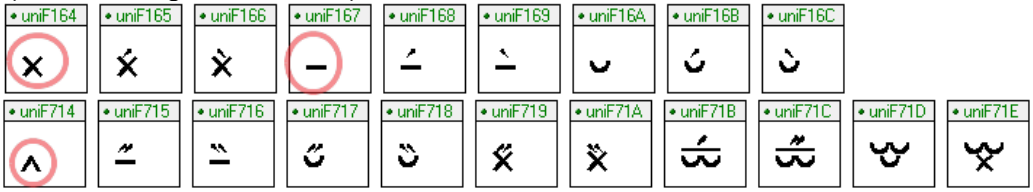
Some metrical symbols already are encoded due to a proposal by Maria Pantelia (Thesaurus Linguae Graecae Project, University of California, Irvine) from 2002 (L2/02-315R2 = ISO/IEC SC2/WG2 N2546, http://std.dkuug.dk/jtc1/sc2/wg2/docs/n2546.pdf), together with a lot of archaic Greek characters, Ancient Greek musical notation, New Testament editorial characters, and similar things (documents L2/02-312...318).
While the character repertoire addressed by that set is sufficient for simple metrical presentations in schoolbooks, the proposal here considers the scientific needs beyond that basic set.

The proposal here follows the encoding principle implicitly established by accepting the proposal from 2002, especially by encoding combinations of stacked basic symbols as separate characters.
This, anyway, has the advantage that no new requests to rendering systems are introduced, as it would be the case when only the basic symbols were encoded, to delegate the stacking to the rendering system.

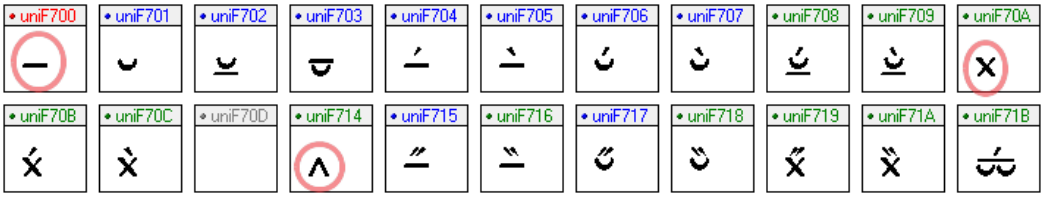
> *However, the unification of some of the very basic metrical symbols with existing characters does not have passed the test of time.*

Especially, the unification of the longum with the en or em dash and the anceps with the multiplication sign is consigned inadequate by several designers of fonts for linguistic or general audience. This is shown by the fact that these fonts contain private use characters for longum and breve, e.g.:

Alphabetum Demo from http://guindo.pntic.mec.es/jmag0042/alphabet.html
(also showing the catalexis);



Andron Scriptor Web from http://www.mufi.info/fonts/ (showing also the catalexis):



Cardo from http://scholarsfonts.net/cardofnt.html :

Junicode from http://junicode.sourceforge.net/ :

The following facts suggest that the mentioned unifications of longum and anceps, as well as unifications of catalexis with "logical and" and the metrical circle "half aeolian base" with one of the circles in the "geometric shapes" block (which all have a dedicated size) are inappropriate:

- The metrical symbols form a closed set for which the font designer must be able to design the relative sizes of the symbols to retain the appearance of this closed set, independent of considerations which apply to other items like similar punctuation marks which may appear in the same font.
- The metrical symbols show a considerable variation of sizes between different designs. Thus, the font designer must be able to select his preferred size, and being able to retain this in the whole set.

(For instance, the metrical circle appears smaller than the small letter o with some authors, while others use a full cap-height form.)

- Also, many authors place the longum on the baseline, while considerable many of them place it on about the x-height. The character, however, is the same. An en or em dash never appears on the baseline, thus it has a definitive different glyph spectrum.
  The font designer must be free to make his preferred choice of the vertical positioning, rather to be bound by unifications with characters requiring a fixed vertical position. See e.g. fig. 1869a-94, 1993a-40.
  (This is comparable with having the Greek circumflex (perispomeni, U+0342) disunified from the common tilde (U+0303), as it looks like a tilde in most but not in all fonts.)
- Regarding the longum, it shall be noted that e.g. the recently encoded dash-like character U+10191 ROMAN UNCIA SIGN is not unified with the em or en dash, possibly for similar considerations (to enable harmonizing of appearance with the other Roman currency signs).
  It also shall be noted that the dash-like character U+23E4 STRAIGHTNESS was added to Unicode 3.0, possibly for similar considerations.

We retain the unification of the ictus with the acute accent, and the unifications of the verse divider and verse end sign with U+007C VERTICAL LINE and U+2016 DOUBLE VERTICAL LINE. However, we propose a new TRIPLE VERTICAL LINE for the strophe end sign, to allow the font designer to provide a symbol which has an appearance in harmony with the verse end. This is in analogy with other existing triple symbols (like U+2034 TRIPLE PRIME).

Regarding of the placement of the proposed symbols, it is not possible to place them all into the "Miscellaneous Technical" block, as this is almost full. Instead of, the symbols are generally proposed for the "Miscellaneous Symbols and Arrows" block.

3. Proposed Characters

Annotations in parentheses address special issues for a character, or reference to figures where such special issues are discussed. (These annotations are not intended to be retained in the character list when copied into the standard.)

Block: Miscellaneous Symbols and Arrows

Metrical Symbols

(Atomic metrical symbols:)

× U+2B7C METRICAL ANCEPS
→ 00D7 multiplication sign
(see e.g. fig. 1997a-352a, 1997a-352b, 2006a-3)

◠ U+2B7D METRICAL INVERTED BREVE
→ 23D1 metrical breve
(see fig. 1964a-298, 1993b-107, 2006a-3)

⍥ U+2B7E METRICAL CORONA
= metrical indifference symbol
(see fig. 1997b-365/367)

— U+2B7F METRICAL LONGUM
(special issues: 1837a-130, 1839a-15, 1868a-154a, 1993a-3a, 1993a-10b)

⎯⎯ U+2B80 METRICAL EXTENDED LONGUM
(see fig. 1868a-145, 2006a-3)

⌊⎯⎯ U+2B81 METRICAL REVERSED TRISEME
→ 23D7 metrical triseme
(see fig. 1869a-38, 1869a-39, 1869a-94, 1982a-XI, 2006a-3)

o U+2B82 METRICAL CIRCLE
= metrical half aeolian base
(see fig.1957a-1, 1982a-XI, 1982a-61, 1993a-18, 1997a-360b, 2006a-3)

∧ U+2B83 METRICAL CATALEXIS
→ 2227 logical and
(see fig. 1869a-28, 1869a-35, 1869a-94)

‥ U+2B84 METRICAL TWO DOT BASE
→ 2025 two dot leader
(see fig. 1834a-216, 1834a-393, 1848a-48)

U+2B85 METRICAL DOVETAIL
- usually has the height of 007C vertical line
→ 0283 latin small letter esh
→ 222B integral

(see fig. 1982a-XI, 1982a-147, 2006a-3)

U+2B86 METRICAL DOWNWARDS TIE
→ U+20FA combining downwards tie above
- The left end usually kerns with the characters left to it, while the low right end extends to a point between x-height and the baseline

(see fig.1997a-350)

(Metrical symbols based on anceps:)

U+2B87 METRICAL SHORT OVER ANCEPS

(see fig. 1969a-179)

U+2B88 METRICAL TWO SHORTS OVER ANCEPS

(see fig. 1993a-18, 1993a-123, 1997a-360a)

U+2B89 METRICAL TURNED SHORT OVER TWO SHORTS OVER ANCEPS

(see fig. 1997b-350)

U+2B8A METRICAL LONG OVER ANCEPS

(see fig. 1969a-179, 1982-XI, 1997a-350, 1997a-352a, 1997a-362)

(Metrical symbols based on breve:)

U+2B8B METRICAL TWO SHORTS OVER SHORT

(see fig. 1993a-18)

U+2B8C METRICAL TURNED SHORT OVER LONG OVER SHORT
= metrical symbol half biceps

(see fig. 1998a-1)

U+2B8D METRICAL TWO SHORTS OVER LONG OVER SHORT

(see fig. 1868a-41, 1993a-123)

(Metrical symbols based on two shorts:)

U+2B8E METRICAL SHORT OVER TWO SHORTS

(see fig. 1834a-61, 1993a-3a)

 U+2B8F METRICAL TURNED SHORT OVER TWO SHORTS

(see fig. 1834b-6, 1939b-24, 1834b-50)

 U+2B90 METRICAL TIE OVER TWO SHORTS

(see fig. 1848a-83, 1848a-428)

 U+2B91 METRICAL LONG OVER SHORT OVER TWO SHORTS

(see fig. 1826-77)

 U+2B92 METRICAL SHORTENED LONG OVER TWO SHORTS

(see fig. 1826a-99, 1868a-152)

 U+2B93 METRICAL LONG OVER TWO SHORTS WITH VERTICAL BAR

(see fig. 1998-1)

 U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS

(see fig. 1834a-61, 1834b-63, 1868a-237, 1993a-3a, 1993a-119)

 U+2B95 METRICAL TWO TURNED SHORTS OVER LONG OVER TWO SHORTS
= metrical symbol biceps

(see fig. 1993a-18, 1997b-365, 1997b-367)

 U+2B96 METRICAL LONG OVER THREE SHORTS

(see fig. 1834a-XIII)

(Metrical symbols based on longum:)

 U+2B97 METRICAL LONG AND SHORT JOINED

(see fig. 1869a-94)

 U+2B98 METRICAL ANCEPS OVER LONG

(see fig. 1843a-114, 1848a-48)

 U+2B99 METRICAL TWO SHORTS OVER LONG WITH VERTICAL BAR

(see fig.1998-1)

 U+2B9A METRICAL TURNED SHORT OVER TWO SHORTS OVER LONG

(see fig. 1967a-77, 1997b-350)

 U+2B9B METRICAL CIRCLE OVER LONG

(see fig. 1834a-492)

 U+2B9C METRICAL LONG TWO AND ONE SHORTS OVER TRISEME

(see fig. 1982a-103)

(Metrical symbols based on catalexis:)

 U+2B9D METRICAL SHORT OVER CATALEXIS

(see fig. 1957a-15)

 U+2B9E METRICAL LONG OVER CATALEXIS

(see fig. 1869a-28, 1993a-10)

 U+2B9F METRICAL TRISEME OVER CATALEXIS

(see fig. 1993a-10)

 U+2BA0 METRICAL REVERSED TRISEME OVER CATALEXIS

(see fig. 1868a-646, 1869a-28, 1869a-35)

 U+2BA1 METRICAL TETRASEME OVER CATALEXIS

(see fig. 1869a-28, 1993a-10)

 U+2BA2 METRICAL PENTASEME OVER CATALEXIS

(see fig. 1993a-10)

 U+2BA3 METRICAL TWO LONGS OVER CATALEXIS

(see fig. 1957a-15)

Metrical Superscript and Subscript Symbols

U+2BA4 METRICAL SUPERSCRIPT ANCEPS

≈ <super> 2B7C

(see fig. 1968a-78, 1968a-79b)

U+2BA5 METRICAL SUPERSCRIPT BREVE

≈ <super> 23D1

(see fig. 1968a-78, 1968a-79a)

U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED

≈ <super> 23D6

(see fig. 1982a-146/147, 1993a-174, 1993a-186, 1997a-358)

U+2BA7 METRICAL SUPERSCRIPT LONGUM
≈ <super> 2B7F

(see fig. 1968a-78, 1968a-79a)

U+2BA8 METRICAL SUBSCRIPT CATALEXIS
≈ <sub> 2B83

(see fig. 1982a-49, 1982a-147, 1993a-186, 1997a-352a/b, 1997a-354, 2006a-3)

(Proposed by Juan-J. Marcos 2011-01-29, added in the revision of 2011-11-15:)

U+2BA9 METRICAL SUPERSCRIPT SHORT OVER LONG
≈ <super> 23D3

U+2BAA METRICAL SUPERSCRIPT LONG OVER SHORT
≈ <super> 23D2

U+2BAB METRICAL SUPERSCRIPT TWO SHORTS OVER LONG
≈ <super> 23D5

U+2BAC METRICAL SUPERSCRIPT LONG OVER TWO SHORTS
≈ <super> 23D4

Metrical Symbols

(Metrical symbols based on breve, additions in the revision of 2011-11-15:)

U+2BAD METRICAL SHORT COLON SHORT OVER LONG OVER SHORT

(see fig. 1982a-49)
(should be placed after 2B8D when re-assigning the code points)

Block: Supplemental Punctuation *(2E00-2E7F)*

Linguistic and metrical Symbols

U+2E48 TRIPLE VERTICAL LINE
= metrical end of strophe
→ 2016 double vertical line

(see fig. 1968a-3, 1957a-39, 1997a-352b, 1997a-354, 2006a-3)

U+2E49 SHORT VERTICAL LINE
→ 007C vertical line
· usually has x-height

(see fig. 1970a-91, 1989b-460, 1993b-107)

U+2E4A LOW PRIME

(see fig. 1848a-84, 1848a-428)

,, U+2E4B LOW DOUBLE PRIME

(see fig. 1848a-428, 1852a-201)

,,, U+2E4C LOW TRIPLE PRIME

(see fig. 1852a-79, 1875a-299)

Editorial Symbols

⸗U+2E4D DOUBLE TWO-EM DASH
→ 2E3A two-em dash

(see fig. 2001b-54)

(or is this a "double paragraphos"?)

Block: Combining Diacritical Marks Extended-A

Combining Marks for linguistic and metrical use

◌ U+1ABB COMBINING LONG VERTICAL LINE ABOVE
- to mark the secondary ictus on classical Greek verses in contrast to the tonal accents

→ 030D combining vertical line above

(see fig. 1829a-21, 1829a-22)

◌ U+1ABC COMBINING DOUBLE LONG VERTICAL LINE ABOVE
- to mark the primary ictus on classical Greek verses in contrast to the tonal accents

→ 030E combining double vertical line above

(see fig. 1829a-21, 1829a-22)

(Proposed by Juan-J. Marcos 2011-01-29, added in the revision of 2011-11-15:)

◌ U+1ACC COMBINING METRICAL SHORT OVER LONG
→ 23D3 metrical short over long

◌ U+1ACD COMBINING METRICAL LONG OVER SHORT
→ 23D2 metrical long over short

◌ U+1ACE COMBINING METRICAL TWO SHORTS OVER LONG
→ 23D5 metrical two shorts over long

◌ U+1ACF COMBINING METRICAL LONG OVER TWO SHORTS
→ 23D4 metrical long over two shorts

Block: Combining Diacritical Marks Supplement

Double diacritic mark for linguistics

U+1DFA COMBINING DOUBLE RIGHTWARDS ARROW ABOVE
→ 0362 combining double rightwards arrow below
→ 20D7 combining right arrow above

(see fig. 1993a-3a)

U+1DFB COMBINING DOTTED DOUBLE INVERTED BREVE
→ 0361 combining double inverted breve
· may also be dashed

(see fig. 1957a-2, 1993a-3b)

Block: Combining Diacritical Marks for Symbols

Stress marks (Ictuses) for Metrical Symbols

U+20F4 COMBINING ACUTE ACCENT ABOVE LEFT
→ 0301 combining acute accent

(see fig.1834b-6, 1939a-24, 1868a-145)

U+20F5 COMBINING ACUTE ACCENT ABOVE RIGHT

(see fig. 1834b-6, 1868a-681)

U+20F6 COMBINING TRIPLE ACUTE ACCENT
→ 030B combining double acute accent

(see fig. 1868a-124)

Base marks for Metrical Symbols

U+20F7 COMBINING X ABOVE LEFT
→ 033D combining x above

(see fig.1834b-50)

U+20F8 COMBINING X ABOVE RIGHT

(see fig. 1834b-50)

Special marks for Metrical Symbols

U+20F9 COMBINING METRICAL TWO SHORTS JOINED ABOVE

(see fig. 1982a-61, 1982a-147)

U+20FA COMBINING METRICAL DOWNWARDS TIE ABOVE
→ U+2B86 metrical downwards tie
· The left end extends beyond the base character and usually kerns with the characters left of it, while the low right end is placed over the base character

(see fig.1957a-6, 1997a-352a, 1997a-362)

Block: Superscripts and Subscripts

@ U+209E SUPERSCRIPT COMMERCIAL AT SIGN
≈ <super> 0040
= metrical symbol antilabe
(see fig. 1993a-4, 1993a-119, 1993a-203)

Properties:

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U+1ABB  COMBINING LONG VERTICAL LINE ABOVE;Mn;230;NSM;;;;N;;;;;
U+1ABC  COMBINING DOUBLE LONG VERTICAL LINE ABOVE;Mn;230;NSM;;;;N;;;;;
U+1ABD  COMBINING QUESTION MARK BELOW;Mn;220;NSM;;;;N;;;;;
U+1ACC  COMBINING METRICAL SHORT OVER LONG;Mn;230;NSM;;;;N;;;;;
U+1ACD  COMBINING METRICAL LONG OVER SHORT;Mn;230;NSM;;;;N;;;;;
U+1ACE  COMBINING METRICAL TWO SHORTS OVER LONG;Mn;230;NSM;;;;N;;;;;
U+1ACF  COMBINING METRICAL LONG OVER TWO SHORTS;Mn;230;NSM;;;;N;;;;;
U+1DFA  COMBINING DOUBLE RIGHTWARDS ARROW ABOVE ;Mn;234;NSM;;;;N;;;;;
U+1DFB  COMBINING DOTTED DOUBLE INVERTED BREVE;Mn;234;NSM;;;;N;;;;;
U+209E  SUPERSCRIPT COMMERCIAL AT SIGN;So;0;ON;<super> 0040;;;;N;;;;;
U+20F4  COMBINING ACUTE ACCENT ABOVE LEFT ;Mn;228;NSM;;;;N;;;;;
U+20F5  COMBINING ACUTE ACCENT ABOVE RIGHT;Mn;232;NSM;;;;N;;;;;
U+20F6  COMBINING TRIPLE ACUTE ACCENT;Mn;230;NSM;;;;N;;;;;
U+20F7  COMBINING X ABOVE LEFT ;Mn;228;NSM;;;;N;;;;;
U+20F8  COMBINING X ABOVE RIGHT;Mn;232;NSM;;;;N;;;;;
U+20F9  COMBINING METRICAL TWO SHORTS JOINED ABOVE;Mn;230;NSM;;;;N;;;;;
U+20FA  COMBINING METRICAL DOWNWARDS TIE ABOVE;Mn;228;NSM;;;;N;;;;;
U+2B7C  METRICAL ANCEPS;So;0;ON;;;;N;;;;;
U+2B7D  METRICAL INVERTED BREVE;So;0;ON;;;;N;;;;;
U+2B7E  METRICAL CORONA;So;0;ON;;;;N;;;;;
U+2B7F  METRICAL LONGUM;So;0;ON;;;;N;;;;;
U+2B80  METRICAL EXTENDED LONGUM;So;0;ON;;;;N;;;;;
U+2B81  METRICAL REVERSED TRISEME;So;0;ON;;;;N;;;;;
U+2B82  METRICAL CIRCLE;So;0;ON;;;;N;;;;;
U+2B83  METRICAL CATALEXIS;So;0;ON;;;;N;;;;;
U+2B84  METRICAL TWO DOT BASE ;So;0;ON;;;;N;;;;;
U+2B85  METRICAL DOVETAIL;So;0;ON;;;;N;;;;;
U+2B86  METRICAL DOWNWARDS TIE;So;0;ON;;;;N;;;;;
U+2B87  METRICAL SHORT OVER ANCEPS;So;0;ON;;;;N;;;;;
U+2B88  METRICAL TWO SHORTS OVER ANCEPS;So;0;ON;;;;N;;;;;
U+2B89  METRICAL TURNED SHORT OVER TWO SHORTS OVER ANCEPS;So;0;ON;;;;N;;;;;
U+2B8A  METRICAL LONG OVER ANCEPS;So;0;ON;;;;N;;;;;
U+2B8B  METRICAL TWO SHORTS OVER SHORT;So;0;ON;;;;N;;;;;
U+2B8C  METRICAL TURNED SHORT OVER LONG OVER SHORT;So;0;ON;;;;N;;;;;
U+2B8D  METRICAL TWO SHORTS OVER LONG OVER SHORT;So;0;ON;;;;N;;;;;
U+2B8E  METRICAL SHORT OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B8F  METRICAL TURNED SHORT OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B90  METRICAL TIE OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B91  METRICAL LONG OVER SHORT OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B92  METRICAL SHORTENED LONG OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B93  METRICAL LONG OVER TWO SHORTS WITH VERTICAL BAR;So;0;ON;;;;N;;;;;
U+2B94  METRICAL SHORT OVER LONG OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B95  METRICAL TWO TURNED SHORTS OVER LONG OVER TWO SHORTS;So;0;ON;;;;N;;;;;
U+2B96  METRICAL LONG OVER THREE SHORTS;So;0;ON;;;;N;;;;;
U+2B97  METRICAL LONG AND SHORT JOINED;So;0;ON;;;;N;;;;;
U+2B98  METRICAL ANCEPS OVER LONG;So;0;ON;;;;N;;;;;
U+2B99  METRICAL TWO SHORTS OVER LONG WITH VERTICAL BAR;So;0;ON;;;;N;;;;;
U+2B9A  METRICAL TURNED SHORT OVER TWO SHORTS OVER LONG;So;0;ON;;;;N;;;;;
U+2B9B  METRICAL CIRCLE OVER LONG;So;0;ON;;;;N;;;;;
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U+2B9C  METRICAL LONG TWO AND ONE SHORTS OVER TRISEME;So;0;ON;;;;;N;;;;;
U+2B9D  METRICAL SHORT OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2B9E  METRICAL LONG OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2B9F  METRICAL TRISEME OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2BA0  METRICAL REVERSED TRISEME OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2BA1  METRICAL TETRASEME OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2BA2  METRICAL PENTASEME OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2BA3  METRICAL TWO LONGS OVER CATALEXIS;So;0;ON;;;;;N;;;;;
U+2BA4  METRICAL SUPERSCRIPT ANCEPS;So;0;ON;<super> 2B7C;;;;N;;;;;
U+2BA5  METRICAL SUPERSCRIPT BREVE;So;0;ON;<super> 23D1;;;;N;;;;;
U+2BA6  METRICAL SUPERSCRIPT TWO SHORTS JOINED;So;0;ON;<super> 23D6;;;;N;;;;;
U+2BA7  METRICAL SUPERSCRIPT LONGUM;So;0;ON;<super> 2B7F;;;;N;;;;;
U+2BA8  METRICAL SUBSCRIPT CATALEXIS ;So;0;ON;<sub> 2B83;;;;N;;;;;
U+2BA9  METRICAL SUPERSCRIPT SHORT OVER LONG;So;0;ON;<super> 23D3;;;;N;;;;;
U+2BAA  METRICAL SUPERSCRIPT LONG OVER SHORT;So;0;ON;<super> 23D2;;;;N;;;;;
U+2BAB  METRICAL SUPERSCRIPT TWO SHORTS OVER LONG;So;0;ON;<super> 23D5;;;;N;;;;;
U+2BAC  METRICAL SUPERSCRIPT LONG OVER TWO SHORTS;So;0;ON;<super> 23D4;;;;N;;;;;
U+2BAD  METRICAL SHORT COLON SHORT OVER LONG OVER SHORT;So;0;ON;;;;;N;;;;;
U+2E48  TRIPLE VERTICAL LINE;Po;0;ON;;;;;N;;;;;
U+2E49  SHORT VERTICAL LINE;Po;0;ON;;;;;N;;;;;
U+2E4A  LOW PRIME;Po;0;ET;;;;;N;;;;;
U+2E4B  LOW DOUBLE PRIME;Po;0;ET;<compat> 2E4A 2E4A;;;;N;;;;;
U+2E4C  LOW TRIPLE PRIME;Po;0;ET;<compat> 2E4A 2E4A 2E4A;;;;N;;;;;
U+2E4D  DOUBLE TWO-EM DASH;Pd;0;ON;;;;;N;;;;;
```

Linebreaking properties of punctuation marks:

The proposed punctuation marks U+2E48 TRIPLE VERTICAL LINE and U+2E49 SHORT VERTICAL LINE are vertical lines by nature, and therefore behave in any linebreaking and related processing like U+2016 DOUBLE VERTICAL LINE.

The proposed punctuation marks U+2E4A LOW PRIME to U+2E4C LOW TRIPLE PRIME (low primes) behave in any linebreaking and related processing like their “high” counterparts U+2030 to U+2032.

The proposed punctuation mark U+2E4D DOUBLE TWO-EM DASH (two-em double dash) behaves in any linebreaking and related processing like its “single” counterpart U+2E3A TWO-EM DASH.

Notes on confusables:

No character proposed in this document is intended to be allowed in IDNs or identifiers. Therefore, no confusability issue is raised by any of them.

4. Acknowledgements

Special thanks to Google for providing scans of numerous 19th century books and publications accessible on the Internet. Without access to these sources, this proposal could not have been made within considerable time.

Many thanks to Anna Pentzlin (formerly student at the Ludwig-Maximilians-Universität of Munich) for providing many examples from 19th century sources.

5. References

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[1997b] Graf, Fritz (ed.) - Einführung in die lateinische Philologie - Leipzig/Stuttgart 1997 - ISBN 3-519-07434-6

[1998a] Anaxiphorminx font, attributed to: Pfeijffer, I. L., University of Leiden, The Netherlands, 1998. The font is found on the Internet at different places, sometime together with a Word document describing it, which shows “David J. Perry, 1998” as author in its properties. The font apparently is widely used to create documents with metrics.

Three of the characters found there, for which we found no evidence in our own printed material so far, are included here.

[2001a] Hutchinson, G. O. - Greek Lyric Poetry - New York 2001 - ISBN 0-19-924017-5

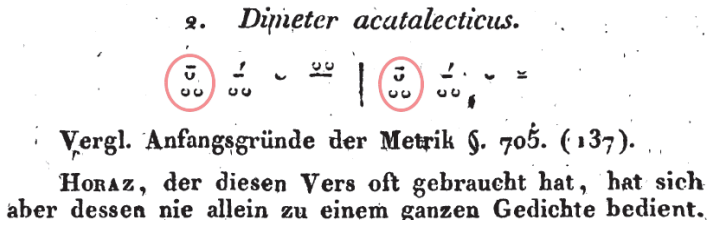
[2006a] Font sample page, retrieved 2006-06-24 from http://ist-socrates.berkeley.edu/~pinax/greekkeys/GreekKeysSample.pdf

6. Examples and Figures

The figures are numbered by the referenced work (consisting of the year of edition and the letter, as in the "references" list, followed by a hyphen the page number, and following by a second letter if more than one figure is taken from a page.
E.g.: "Fig. 1848a-83" means "See ref. [1848a], p.83").

References to already encoded characters are usually given in parentheses.

Fig. 1826a-77: *Showing specimens for U+2B91 METRICAL LONG OVER SHORT OVER TWO SHORTS.*

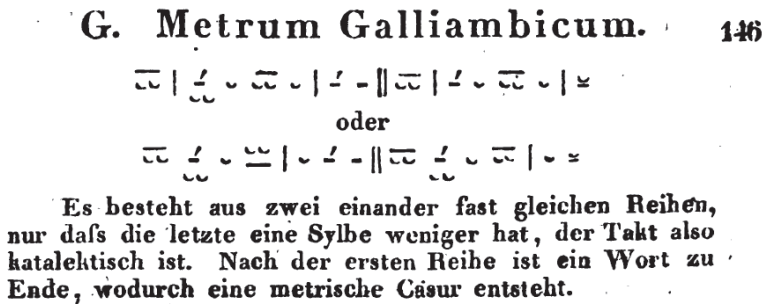


2. *Dipeter acatalecticus.*

Vergl. Anfangsgründe der Metrik §. 705. (137).

Horaz, der diesen Vers oft gebraucht hat, hat sich aber dessen nie allein zu einem ganzen Gedichte bedient.

Fig. 1826a-99: *Showing specimens for U+2B92 METRICAL SHORTENED LONG OVER TWO SHORTS (e.g.the third character in the second row after the first vertical line); with an ictus applied which is unified with the acute accent (U+0301)*

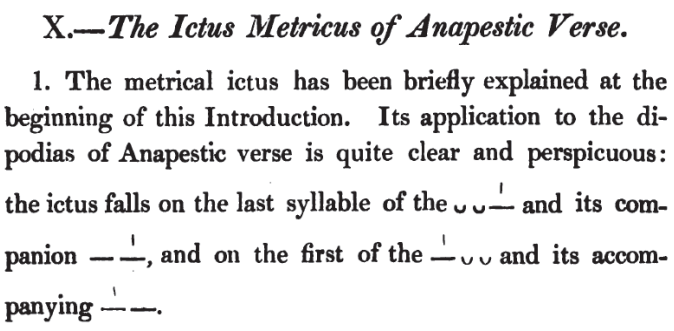


G. Metrum Galliambicum. 146

oder

Es besteht aus zwei einander fast gleichen Reihen, nur dafs die letzte eine Sylbe weniger hat, der Takt also katalektisch ist. Nach der ersten Reihe ist ein Wort zu Ende, wodurch eine metrische Cäsur entsteht.

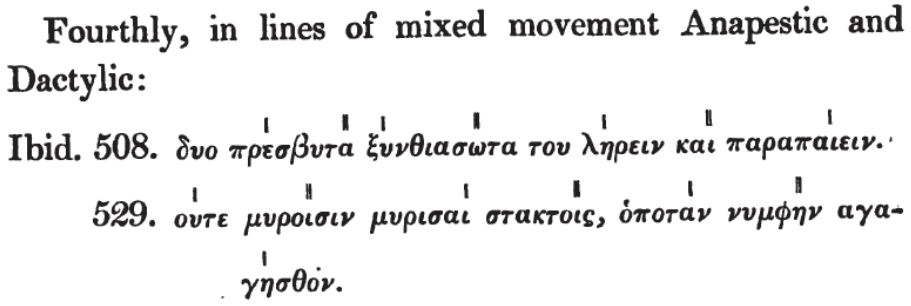
Fig. 1829a-21: *Showing specimens for U+1ABB COMBINING LONG VERTICAL LINE ABOVE on a longum, in a work which avoids the acute here as it uses the same combining characters on text in contrast to the tonal accents (one of which the acute accent is in classical Greek); see fig. 1829a-22.*



X.—*The Ictus Metricus of Anapestic Verse.*

1. The metrical ictus has been briefly explained at the beginning of this Introduction. Its application to the dipodias of Anapestic verse is quite clear and perspicuous: the ictus falls on the last syllable of the ⏑ ⏑ ‒́ and its companion ‒ ‒́, and on the first of the ‒́ ⏑ ⏑ and its accompanying ‒́ ‒.

Fig. 1829a-22: *Showing specimens for U+1ABB COMBINING LONG VERTICAL LINE ABOVE and U+1ABC COMBINING DOUBLE LONG VERTICAL LINE ABOVE on text.*

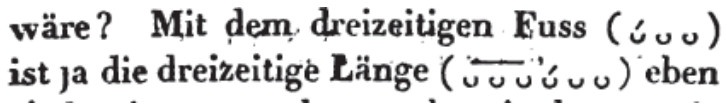


Fourthly, in lines of mixed movement Anapestic and Dactylic:

Ibid. 508. δνο πρεσβυτα ξυνθιασωτα του ληρειν και παραπαιειν.

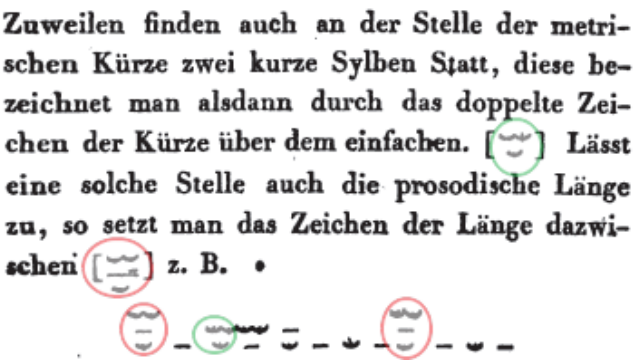
529. ουτε μυροισιν μυρισαι στακτοις, οποταν νυμφην αγαγησθον.

Fig. 1834a-XIII: *Showing specimen for U+2B96 METRICAL LONG OVER THREE SHORTS.*



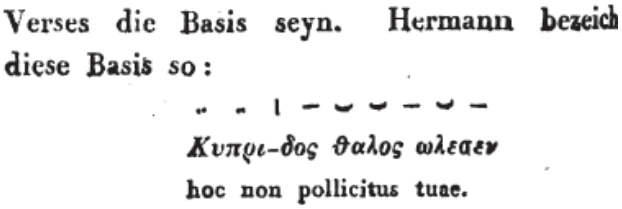
wäre? Mit dem dreizeitigen Fuss (⏑ ⏑ ⏑)
ist ja die dreizeitige Länge (— ⏑ ⏑ ⏑ ⏑ ⏑) eben

Fig. 1834a-61: *Showing specimens for U+2B8E METRICAL SHORT OVER TWO SHORTS (green), U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS (red).*



Zuweilen finden auch an der Stelle der metrischen Kürze zwei kurze Sylben Statt, diese bezeichnet man alsdann durch das doppelte Zeichen der Kürze über dem einfachen. [⏑⏑] Lässt eine solche Stelle auch die prosodische Länge zu, so setzt man das Zeichen der Länge dazwischen [⏑—⏑] z. B. •

Fig. 1834a-216: *Showing specimens for U+2B84 METRICAL TWO DOT BASE.*



Verses die Basis seyn. Hermann bezeich
diese Basis so:

Κυπρι-δος θαλος ωλεσεν
hoc non pollicitus tuae.

Fig. 1834a-393: *Showing specimens for U+2B84 METRICAL TWO DOT BASE.*

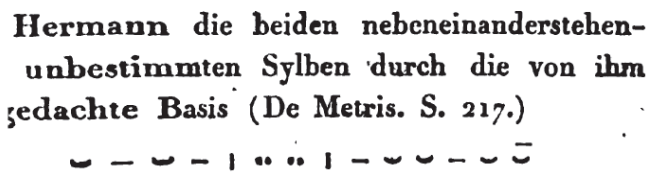


Fig. 1834a-492: *Showing a specimen for U+2B9B METRICAL CIRCLE OVER LONG.*

Fig. 1834b-6: *Showing specimens for U+2B90 METRICAL TURNED SHORT OVER TWO SHORTS, with U+20F4 COMBINING ACUTE ACCENT ABOVE LEFT (red) and U+20F5 COMBINING ACUTE ACCENT ABOVE RIGHT (green).*

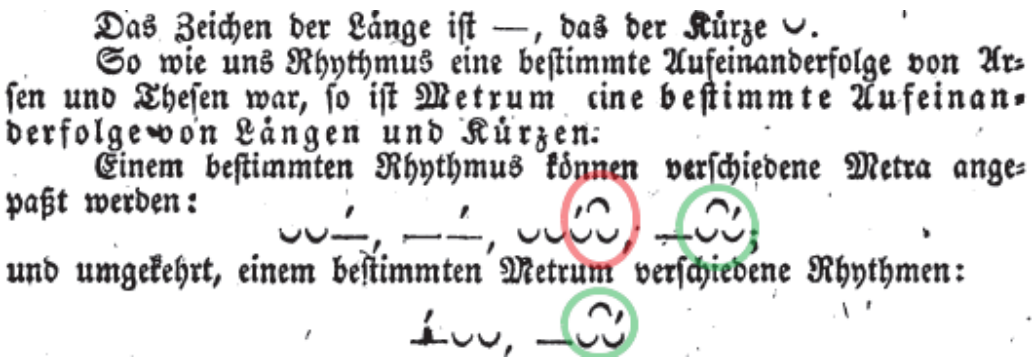


Fig. 1834b-50: *Showing base marks:*
U+20F7 COMBINING X ABOVE LEFT over U+2B8F METRICAL TURNED SHORT OVER TWO SHORTS (red),
(U+033D) over (U+2304) and U+2B7F METRICAL LONGUM (green; the last two characters marked green are not U+2B98 METRICAL ANCEPS OVER LONG),
U+20F8 COMBINING X ABOVE RIGHT over U+2B8F METRICAL TURNED SHORT OVER TWO SHORTS (blue).

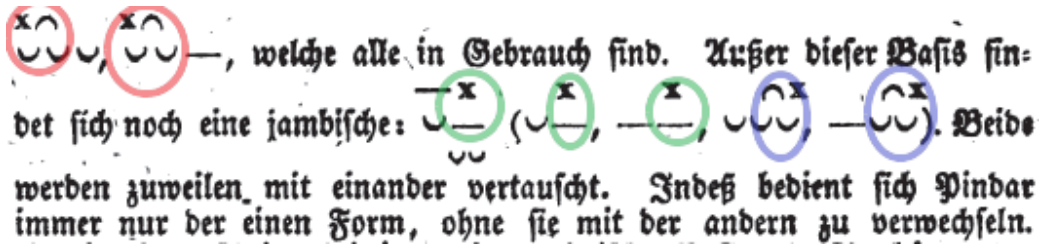


Fig. 1834b-63: *Showing a specimen of U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS (second line before "acatalecta").*
Also, showing an example where the baseline is occupied by the middle element of the stack (counting also the ictus). However, the metrical part is simply encoded as:
(U+23D2) (U+0301) (U+23D4) (U+23D1) (U+23D4) (U+23D1) U+2B94
(U+23D2) (U+0301) (U+23D4) (U+23D1) (U+23D4) (U+23D2)

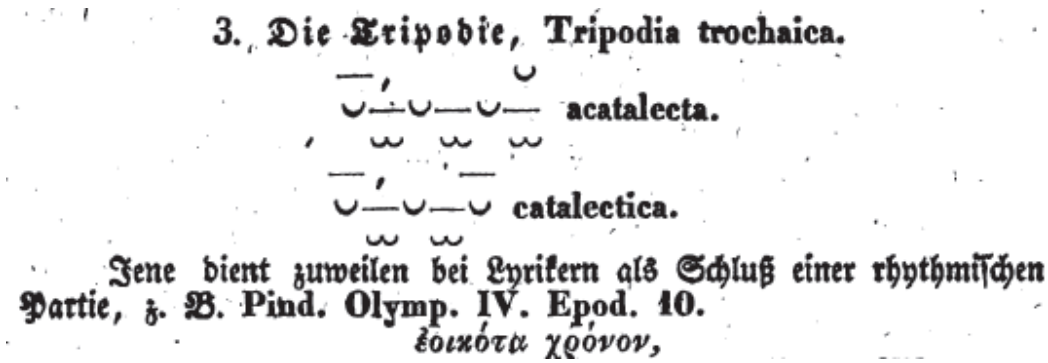


Fig. 1837a-130: *Showing specimens for the longum U+2B7F METRICAL LONGUM in a position below the baseline, in clear contrast to the em dashes found in the first line.*

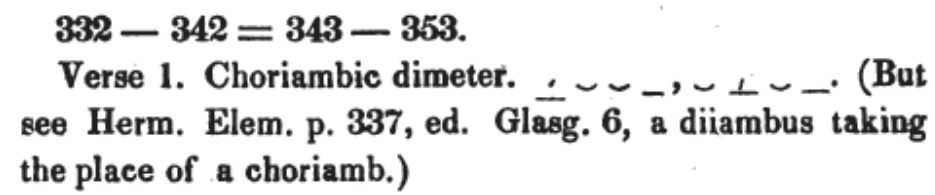
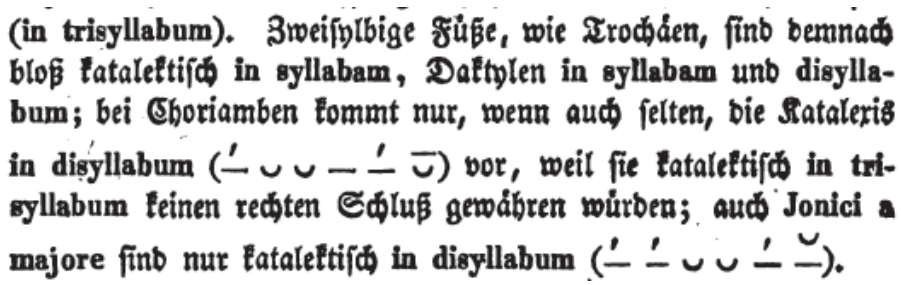
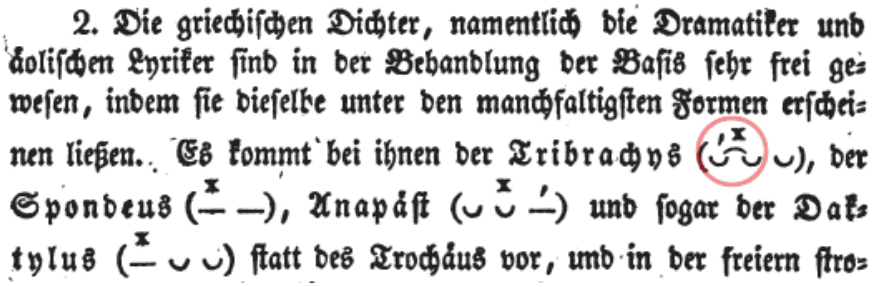


Fig. 1839a-15: *Showing specimens for use of the longum U+2B7F METRICAL LONGUM on the baseline.*



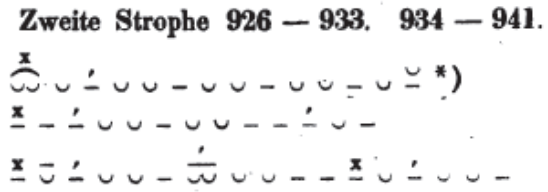
(in trisyllabum). Zweisylbige Füße, wie Trochäen, sind demnach bloß katalektisch in syllabam, Daktylen in syllabam und disyllabum; bei Choriamben kommt nur, wenn auch selten, die Kataleris in disyllabum (— ⏑ ⏑ — — ⏑) vor, weil sie katalektisch in trisyllabum keinen rechten Schluß gewähren würden; auch Jonici a majore sind nur katalektisch in disyllabum (— — ⏑ ⏑ — —).

Fig. 1839a-24: *Showing a specimen of the sequence U+20F4 COMBINING ACUTE ACCENT ABOVE LEFT (U+033D) U+2B8F METRICAL TURNED SHORT OVER TWO SHORTS.*



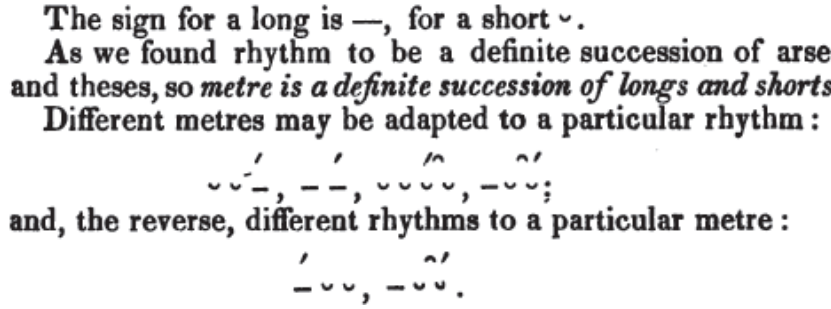
2. Die griechischen Dichter, namentlich die Dramatiker und äolischen Lyriker sind in der Behandlung der Basis sehr frei gewesen, indem sie dieselbe unter den manchfaltigsten Formen erscheinen ließen. Es kommt bei ihnen der Tribrachys (⏑ ⏑ ⏑), der Spondeus (— —), Anapäst (⏑ ⏑ —) und sogar der Daktylus (— ⏑ ⏑) statt des Trochäus vor, und in der freiern stro-

Fig. 1843a-114: *Showing specimen for U+2B90 METRICAL TURNED SHORT OVER TWO SHORTS (start of second line), U+2B98 METRICAL ANCEPS OVER LONG (start of third and fourth line).*
The small anceps over the U+2B90 METRICAL TURNED SHORT OVER TWO SHORTS can be represented by (U+033D).



Zweite Strophe 926 — 933. 934 — 941.

Fig. 1844a-9: *Same characters as in fig. 1834b-6, using another font.*



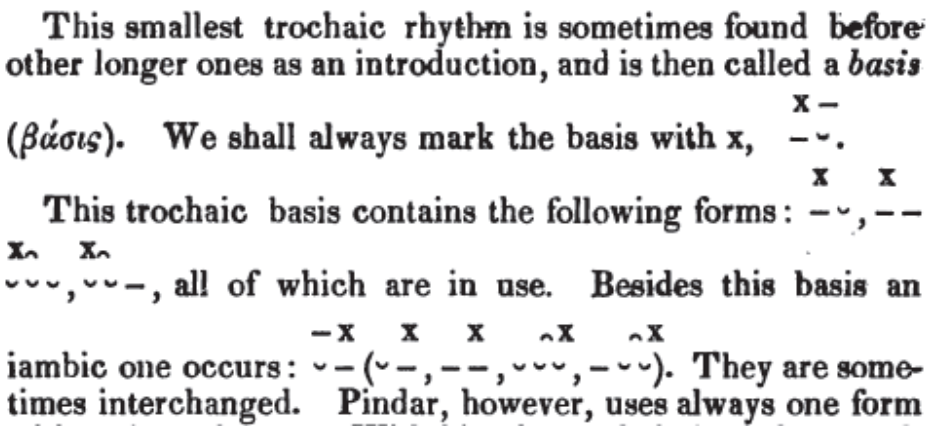
The sign for a long is —, for a short ⏑.
As we found rhythm to be a definite succession of arses and theses, so *metre is a definite succession of longs and shorts.*
Different metres may be adapted to a particular rhythm:

⏑ ⏑ — , — — , ⏑ ⏑ ⏑ ⏑ , — ⏑ ⏑ ;

and, the reverse, different rhythms to a particular metre:

— ⏑ ⏑ , — ⏑ ⏑ .

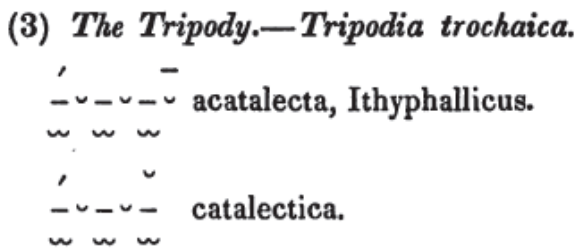
Fig. 1844a-61: *Compare with fig. 1834b-50.*



This smallest trochaic rhythm is sometimes found before other longer ones as an introduction, and is then called a *basis* (*βάσις*). We shall always mark the basis with x, $\overset{x\,-}{-\breve{}}$.

This trochaic basis contains the following forms: $\overset{x}{-\breve{}}, \overset{x}{-}\overset{x}{-}$, $\overset{x}{\breve{}}\overset{x}{\breve{}}\breve{}, \overset{x}{\breve{}}\overset{x}{\breve{}}-$, all of which are in use. Besides this basis an iambic one occurs: $\breve{}-\overset{-x}{(\breve{}-}, \overset{x}{-}\overset{x}{-}, \overset{x}{\breve{}}\overset{x}{\breve{}}\overset{x}{\breve{}}, \overset{x}{-}\overset{x}{\breve{}}\overset{x}{\breve{}})$. They are sometimes interchanged. Pindar, however, uses always one form

Fig. 1844a-75: *Compare with fig. 1834b-63.*



(3) *The Tripody.—Tripodia trochaica.*

$\overset{\prime}{-}\breve{}-\breve{}-\breve{}$ acatalecta, Ithyphallicus.

$\breve{}\ \breve{}\ \breve{}$

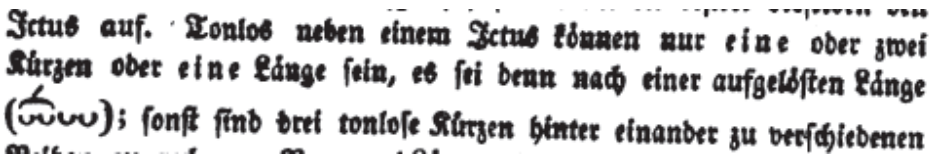
$\overset{\prime}{-}\breve{}-\breve{}-$ catalectica.

$\breve{}\ \breve{}\ \breve{}$

Fig. 1848a-48: *Showing specimens for U+2B84 METRICAL TWO DOT BASE, U+2B98 METRICAL ANCEPS OVER LONG, (and U+23D2).*

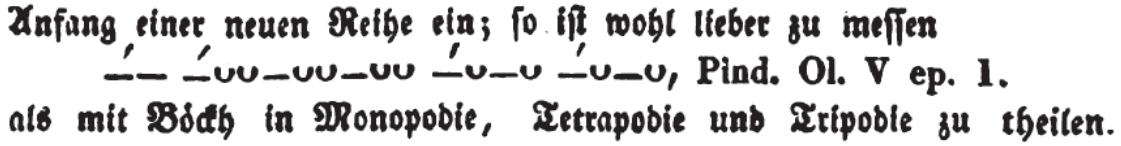
**) Hermann bezeichnet ſie .. .., Böckh $\underline{X}\,\breve{}$.

Fig. 1848a-83: *Showing specimen for U+2B90 METRICAL TURNED SHORT OVER TWO SHORTS.*



Ictus auf. Tonlos neben einem Ictus können nur eine oder zwei Kürzen oder eine Länge ſein, es ſei denn nach einer aufgelöſten Länge ($\overset{\prime}{\breve{}}\breve{}\breve{}$); ſonſt ſind drei tonloſe Kürzen hinter einander zu verſchiedenen

Fig. 1848a-84: *Showing a specimen for U+2E4A LOW PRIME (in the second line), different from the comma (in the third line) in size, slanting angle, and shape.*



Anfang einer neuen Reihe ein; ſo iſt wohl lieber zu meſſen

$\overset{\prime}{-}\overset{\prime}{-}\overset{\prime}{-}\breve{}\overset{\prime}{-}\breve{}\overset{\prime}{-}\breve{}$ $\overset{\prime}{-}\breve{}\overset{\prime}{-}\breve{}$ $\overset{\prime}{-}\breve{}\overset{\prime}{-}\breve{}$, Pind. Ol. V ep. 1.

als mit Böckh in Monopodie, Tetrapodie und Tripodie zu theilen.

Fig. 1848a-427: *Showing specimens for U+2E4B LOW DOUBLE PRIME (second last line), U+2E4A LOW PRIME (last line).*

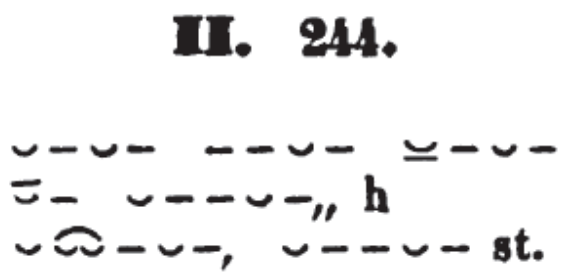


Fig. 1852a-79: *Showing specimens for U+2E4C LOW TRIPLE PRIME.*

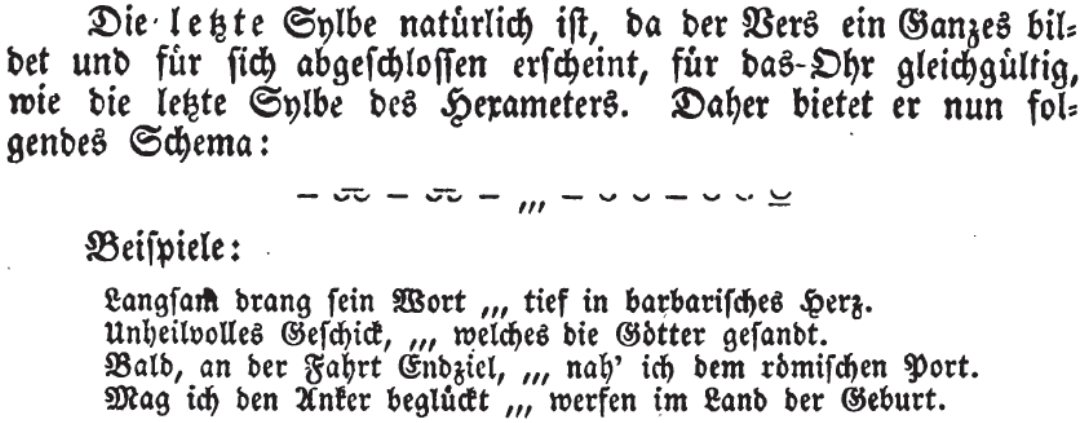


Fig. 1852a-201: *Showing specimens for U+2E4B LOW DOUBLE PRIME.*

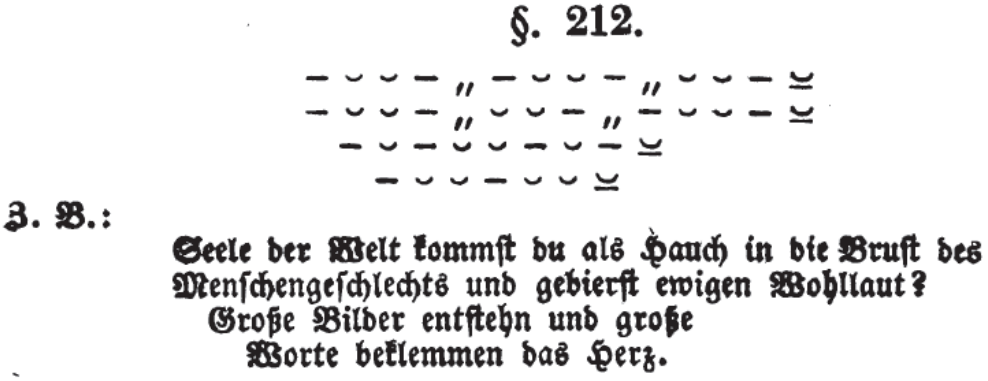


Fig. 1868a-41: *Showing specimens for U+2B8D METRICAL TWO SHORTS OVER LONG OVER SHORT.*

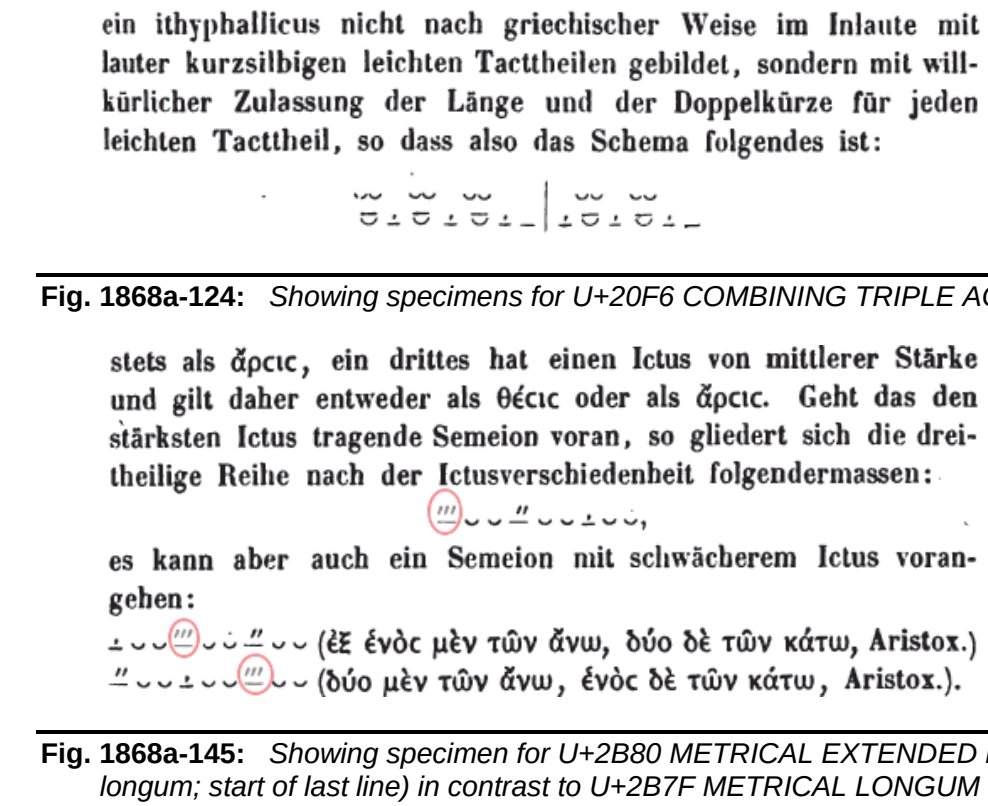

ein ithyphallicus nicht nach griechischer Weise im Inlaute mit lauter kurzsilbigen leichten Tacttheilen gebildet, sondern mit willkürlicher Zulassung der Länge und der Doppelkürze für jeden leichten Tacttheil, so dass also das Schema folgendes ist:

Fig. 1868a-124: *Showing specimens for U+20F6 COMBINING TRIPLE ACUTE ACCENT .*

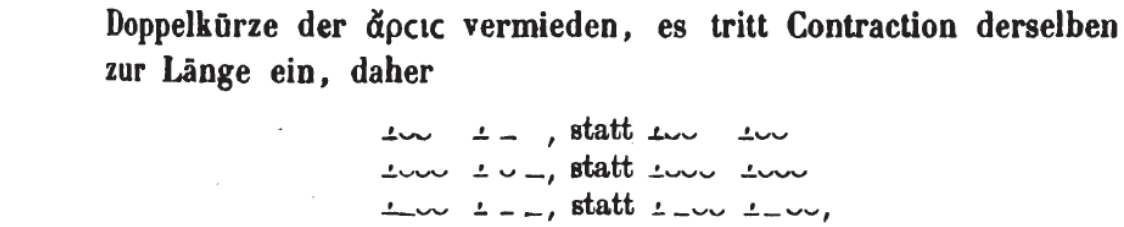
stets als ἄρσις, ein drittes hat einen Ictus von mittlerer Stärke und gilt daher entweder als θέσις oder als ἄρσις. Geht das den stärksten Ictus tragende Semeion voran, so gliedert sich die dreitheilige Reihe nach der Ictusverschiedenheit folgendermassen:

es kann aber auch ein Semeion mit schwächerem Ictus vorangehen:

(ἐξ ἑνὸς μὲν τῶν ἄνω, δύο δὲ τῶν κάτω, Aristox.)

(δύο μὲν τῶν ἄνω, ἑνὸς δὲ τῶν κάτω, Aristox.).

Fig. 1868a-145: *Showing specimen for U+2B80 METRICAL EXTENDED LONGUM (extended longum; start of last line) in contrast to U+2B7F METRICAL LONGUM (the "common" longum).*
Apparently, the "extended longum" denotes a syllable spoken extraordinary long in contrast to the ones denoted by an ordinary longum
Also, the U+2B80 METRICAL EXTENDED LONGUM carries a U+20F4 COMBINING ACUTE ACCENT ABOVE LEFT .


Doppelkürze der ἄρσις vermieden, es tritt Contraction derselben zur Länge ein, daher

, statt

, statt

, statt

Fig. 1868a-152: *Showing specimens for U+2B92 METRICAL SHORTENED LONG OVER TWO SHORTS (end of second and third last line) .*

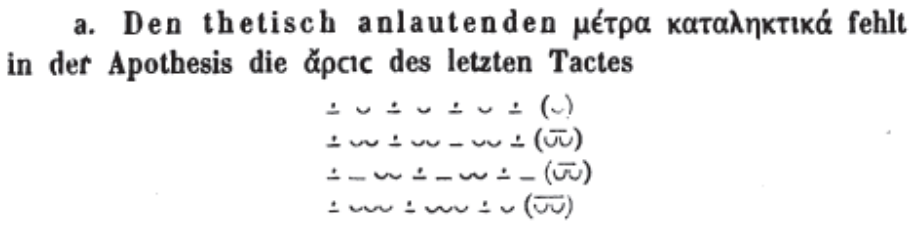
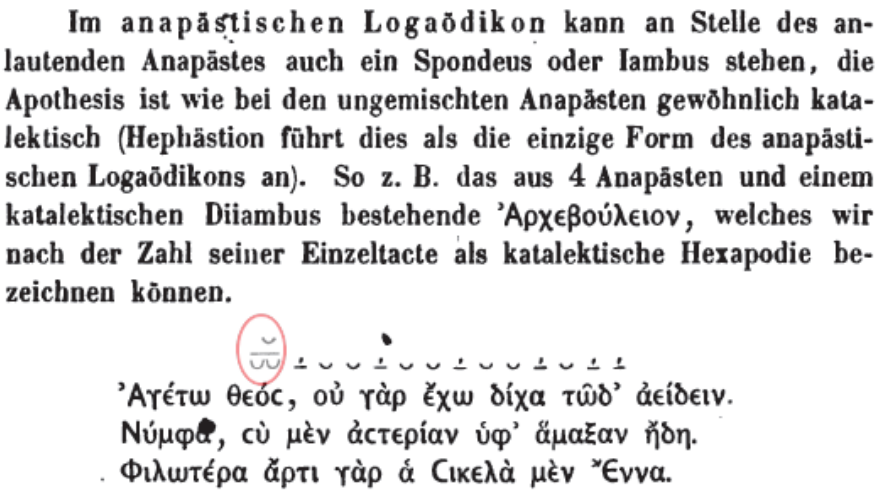

a. Den thetisch anlautenden μέτρα καταληκτικά fehlt in der Apothesis die ἄρσις des letzten Tactes

Fig. 1868a-237: *Showing specimens for U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS.*


Im anapästischen Logaödikon kann an Stelle des anlautenden Anapästes auch ein Spondeus oder Iambus stehen, die Apothesis ist wie bei den ungemischten Anapästen gewöhnlich katalektisch (Hephästion führt dies als die einzige Form des anapästischen Logaödikons an). So z. B. das aus 4 Anapästen und einem katalektischen Diiambus bestehende Ἀρχεβούλειον, welches wir nach der Zahl seiner Einzeltacte als katalektische Hexapodie bezeichnen können.

Ἀγέτω θεός, οὐ γὰρ ἔχω δίχα τῶδ' ἀείδειν.
Νύμφα, σὺ μὲν ἀστερίαν ὑφ' ἅμαξαν ἤδη.
Φιλωτέρα ἄρτι γὰρ ἁ Σικελὰ μὲν Ἔννα.

Fig. 1868a-601: *Showing a specimen for U+20F5 COMBINING ACUTE ACCENT ABOVE RIGHT.*

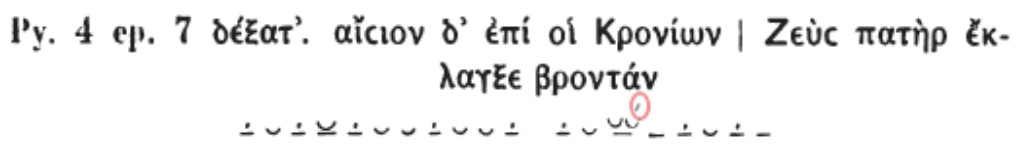

Py. 4 ep. 7 δέξατ'. αἴσιον δ' ἐπί οἱ Κρονίων | Ζεὺς πατὴρ ἔκλαγξε βροντάν

Fig. 1868a-646: *Showing specimens for U+2BA0 METRICAL REVERSED TRISEME OVER CATALEXIS.*

Gewöhnlich findet in diesen Versen innerhalb oder am Ende des Trochäus ein Wortende statt. Hier ist wie bei der Cäsur des elegischen Verses eine Pause gestattet, durch welche die auslautende Kürze des Trochäus der Länge desselben im Zeitumfange gleich gestellt wird, z. B.

ἀγησιχόρων ὁπόταν προοιμίων
ἅ τε πρυτανεία λέλογχας | Ἑστία

Fig. 1869a-28: *Showing specimens for:*
U+2BA8 METRICAL SUBSCRIPT CATALEXIS,
U+2B9E METRICAL LONG OVER CATALEXIS,
U+2BA0 METRICAL REVERSED TRISEME OVER CATALEXIS,
U+2BA1 METRICAL TETRASEME OVER CATALEXIS.

des Aufschlages eine Pause haben kann. Diese Pause wird in der Notenschrift wie in der metrischen Zeichenschrift durch verschiedene Zeichen je nach ihrer Zeitdauer angegeben:

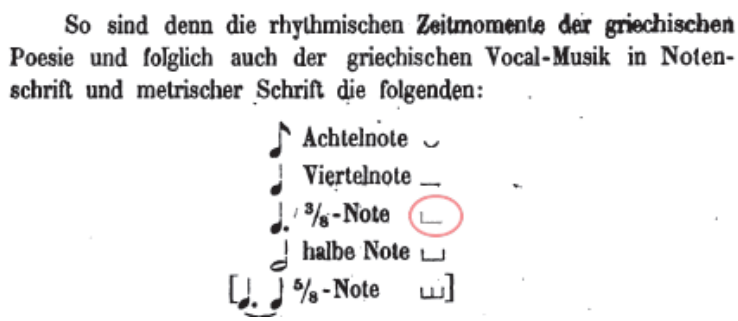
die Achtelpause 𝄾, ⏜.
die Viertelpause 𝄽, ⏜.
die $^3/_8$-Pause 𝄽·, ⎣⏜.
die halbe Pause 𝄼, ⎣⎦⏜.

2. Der Schluss mit einem verkürzten Takte heisst κατάληξις und der so schliessende Vers katalektisch (στίχος καταληκτικός, μέτρον καταληκτικόν). Schliesst dagegen der Vers mit ganzem Takte, so heisst er „voll endend“ (ἀκατάληκτος).

Fig. 1869a-35: *Showing specimens for U+2BA8 METRICAL SUBSCRIPT CATALEXIS (red), U+2BA0 METRICAL REVERSED TRISEME OVER CATALEXIS (green).*

Γ. ἰώ, ὦ, μεγάλα τοι κόραι δυστυχεῖς
Νυκτὸς ἀτιμοπενθεῖς.

Fig. 1869a-38: *Showing a specimen for U+2B81 METRICAL REVERSED TRISEME.*


So sind denn die rhythmischen Zeitmomente der griechischen Poesie und folglich auch der griechischen Vocal-Musik in Notenschrift und metrischer Schrift die folgenden:

Achtelnote ⏑
Viertelnote –
3/8-Note ⌊
halbe Note ⌴
[5/8-Note ⌴]

Fig. 1869a-39: *Showing specimens for U+2B81 METRICAL REVERSED TRISEME.*

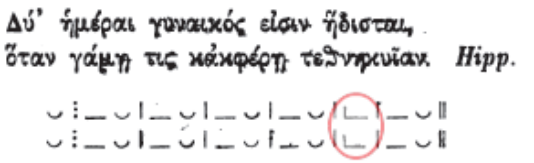
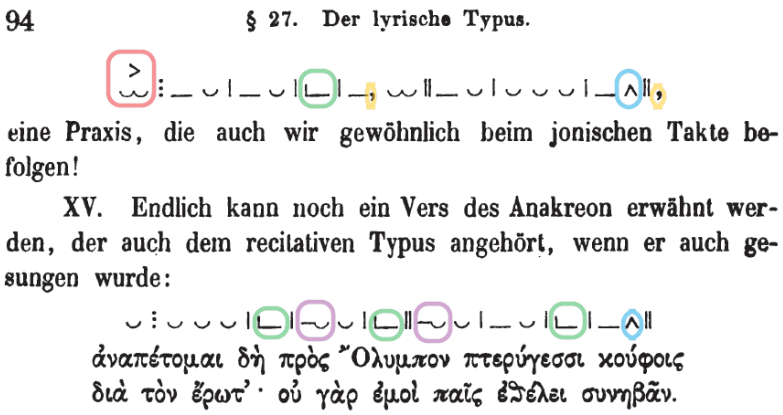

Δύ' ἡμέραι γυναικός εἰσιν ἥδισται,
ὅταν γάμῃ τις κἀκφέρῃ τεθνηκυῖαν. *Hipp.*

Fig. 1869a-94: *Showing specimens for (U+23D6 + U+350) (red), U+2B81 METRICAL REVERSED TRISEME (green, U+2B83 METRICAL CATALEXIS (blue), U+2B97 METRICAL LONG AND SHORT JOINED (purple).*
Also, showing a form of the LONGUM on the baseline, as shown by the comma (orange).


94 § 27. Der lyrische Typus.

eine Praxis, die auch wir gewöhnlich beim jonischen Takte befolgen!

XV. Endlich kann noch ein Vers des Anakreon erwähnt werden, der auch dem recitativen Typus angehört, wenn er auch gesungen wurde:

ἀναπέτομαι δὴ πρὸς Ὄλυμπον πτερύγεσσι κούφοις
διὰ τὸν ἔρωτ'· οὐ γὰρ ἐμοὶ παῖς ἐθέλει συνηβᾶν.

Fig. 1869a-107: *Showing specimens for (U+23D6 + U+0350), (U+23D1 + U+0350).*

III. Die *Stropha Archilochia quarta* in Horazischer Form ist ebenfalls vierversig. Vgl. § 28, 4, III. Horaz hat nämlich den zweiten Vers mit dem ersten vereinigt, indem sich zwischen beiden weder *syllaba anceps* noch *hiatus* findet. Die so entstandene zweizeilige epodische Strophe wird aber repetirt, so dass eine vierzeilige Strophe entsteht:

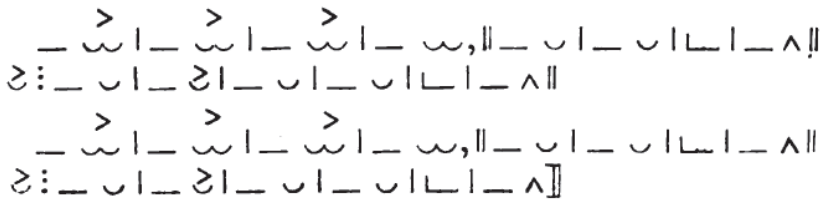


Fig. 1869a-121: *Showing specimens for U+2B7F METRICAL LONGUM and (U+23D8), each combined with (U+0307) + (U+0307) (two times combining dot above).*

richtig niedertreten, wenn nur die Hauptbewegung durch die Melodie gegeben ist; daher werden gerne Verse gebraucht wie folgender:

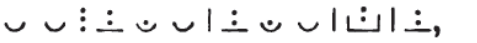


Fig. 1875a-299: *Showing a specimen for U+2E4C LOW TRIPLE PRIME (red), showing its basic shape different from the comma (green).*

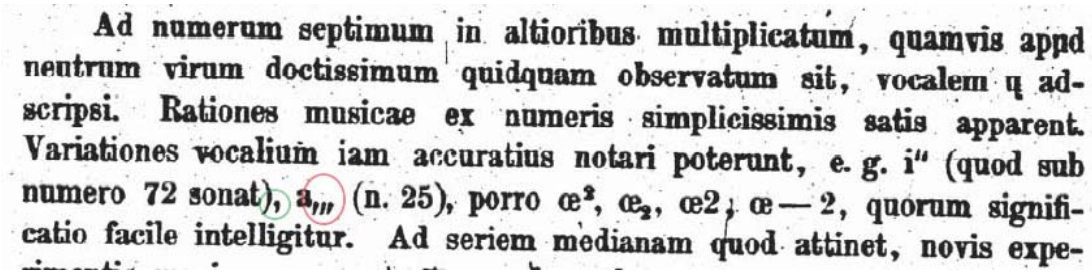
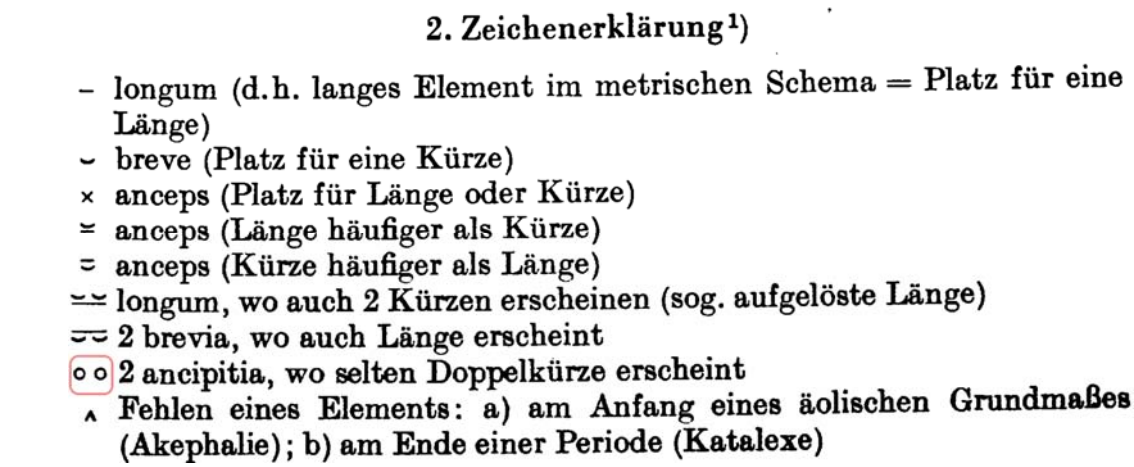


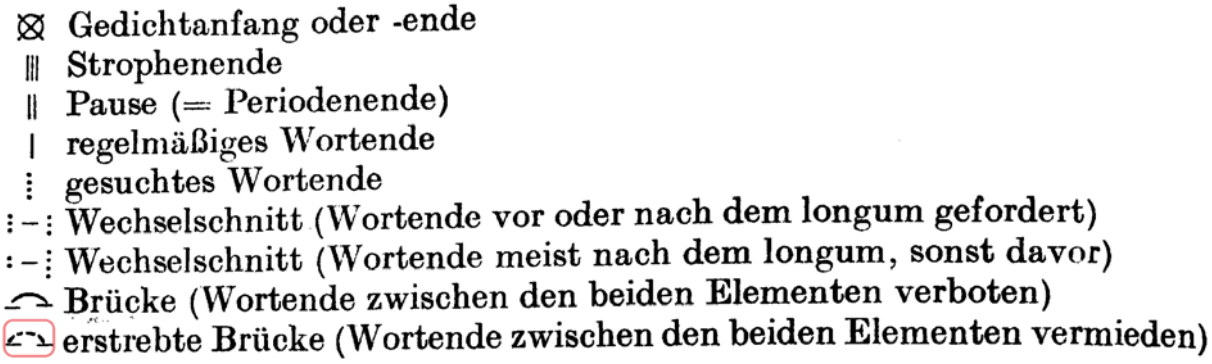
Fig. 1957a-1: *Showing specimens for U+2B82 METRICAL CIRCLE.*



2. Zeichenerklärung[1])

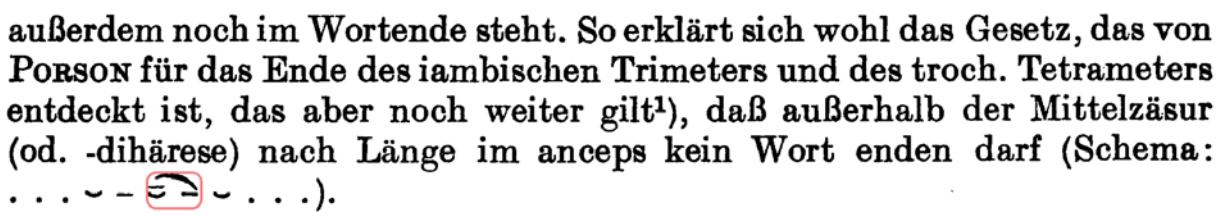
– longum (d.h. langes Element im metrischen Schema = Platz für eine Länge)
⏑ breve (Platz für eine Kürze)
× anceps (Platz für Länge oder Kürze)
⏑ anceps (Länge häufiger als Kürze)
– anceps (Kürze häufiger als Länge)
– – longum, wo auch 2 Kürzen erscheinen (sog. aufgelöste Länge)
⏑ ⏑ 2 brevia, wo auch Länge erscheint
⏑ ⏑ 2 ancipitia, wo selten Doppelkürze erscheint
∧ Fehlen eines Elements: a) am Anfang eines äolischen Grundmaßes (Akephalie); b) am Ende einer Periode (Katalexe)

Fig. 1957a-2: *Showing a specimen for U+1DFB COMBINING DOTTED DOUBLE INVERTED BREVE.*



⊠ Gedichtanfang oder -ende
‖ Strophenende
‖ Pause (= Periodenende)
| regelmäßiges Wortende
⁞ gesuchtes Wortende
⁞–⁞ Wechselschnitt (Wortende vor oder nach dem longum gefordert)
⁞–⁞ Wechselschnitt (Wortende meist nach dem longum, sonst davor)
⌒ Brücke (Wortende zwischen den beiden Elementen verboten)
⌒ erstrebte Brücke (Wortende zwischen den beiden Elementen vermieden)

Fig. 1957a-6: *Showing a specimen for U+20FA COMBINING METRICAL DOWNWARDS TIE ABOVE, applied to the longum at right, while it kerns over the left "long over short".*



außerdem noch im Wortende steht. So erklärt sich wohl das Gesetz, das von Porson für das Ende des iambischen Trimeters und des troch. Tetrameters entdeckt ist, das aber noch weiter gilt[1]), daß außerhalb der Mittelzäsur (od. -dihärese) nach Länge im anceps kein Wort enden darf (Schema: . . . ⏑ – ⏑ ⌒ ⏑ . . .).

Fig. 1957a-15: *Showing specimens for U+2B9D METRICAL SHORT OVER CATALEXIS (green), U+2BA3 METRICAL TWO LONGS OVER CATALEXIS (red).*

ALKMAN fr. 60, das allerdings nur vermutungsweise ALKMAN zugesprochen ist, ließe sich wohl so rekonstruieren:

3 *da* ⏑ ⏑ | ⏑ 4 *da* ⏑ ⏑ | ∗∗
⟨ 3 *da* ⏑ ⏑ | ⏑ 4 *da* ⏑ ⏑ | ∗∗ ⟩
∗∗ 4 *da* ⏑ | 4 *da* ⏑ ⏑ ‖ [3]).

Fig. 1957a-39: *Showing specimens for U+2E48 TRIPLE VERTICAL LINE, used in text.*

e) Tragödie und Komödie

α) Aufbau der Strophen

Während die Chorlieder der Lyriker triadisch in der Form gebaut sind, daß die Dreiheit Strophe, Antistrophe und Epode öfter wiederholt wird (s. o. S. 13 und 16; Schema: *a* ‖ *a* ‖ *b* ‖ *a* ‖ *a* ‖ *b* ‖ . . .), ist es im Drama das übliche, daß paarweis respondierende Strophen einander folgen, die allenfalls durch ein nicht respondierendes Stück (astrophon) abgeschlossen werden können; Schema: *a* ‖ *a* ‖ *b* ‖ *b* ‖ . . . (*n* ‖). Gelegentlich treten solche Astropha auch zwischen die respondierenden Strophen (Mesoden)[2]) oder auch davor (Prosoden). Sophokles und Euripides haben meist in einem Chorlied 2 Strophenpaare, Aischylos dagegen durchweg noch mehr[3]). Erst unter dem Einfluß des sogenannten jüngeren Dithyrambos (s. u. S. 45) treten Astropha in den Chorliedern hervor[4]) und entstehen vor allem die großen Schauspielerarien.

Fig. 1964a-298: *Showing a specimen for U+2B7D METRICAL INVERTED BREVE.*

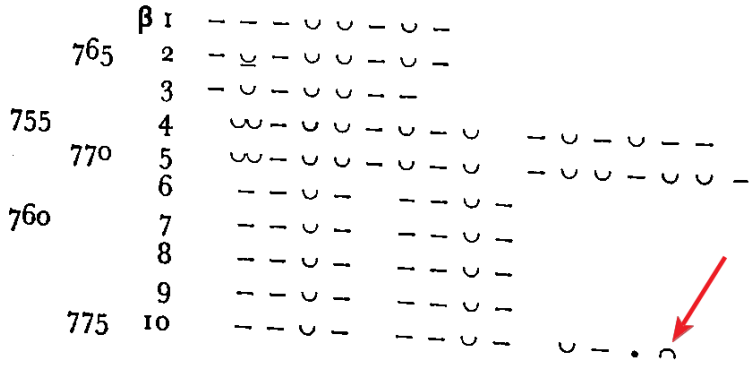


Fig. 1967a-77: *Showing specimens for U+2B9A METRICAL TURNED SHORT OVER TWO SHORTS OVER LONG.*

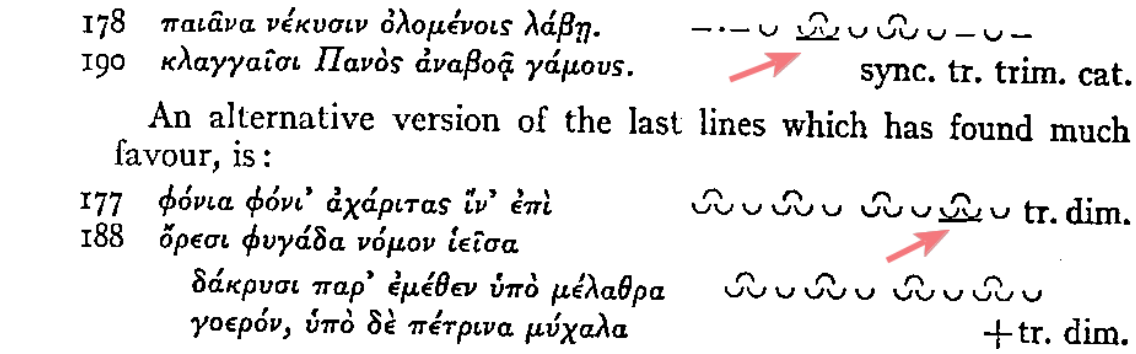
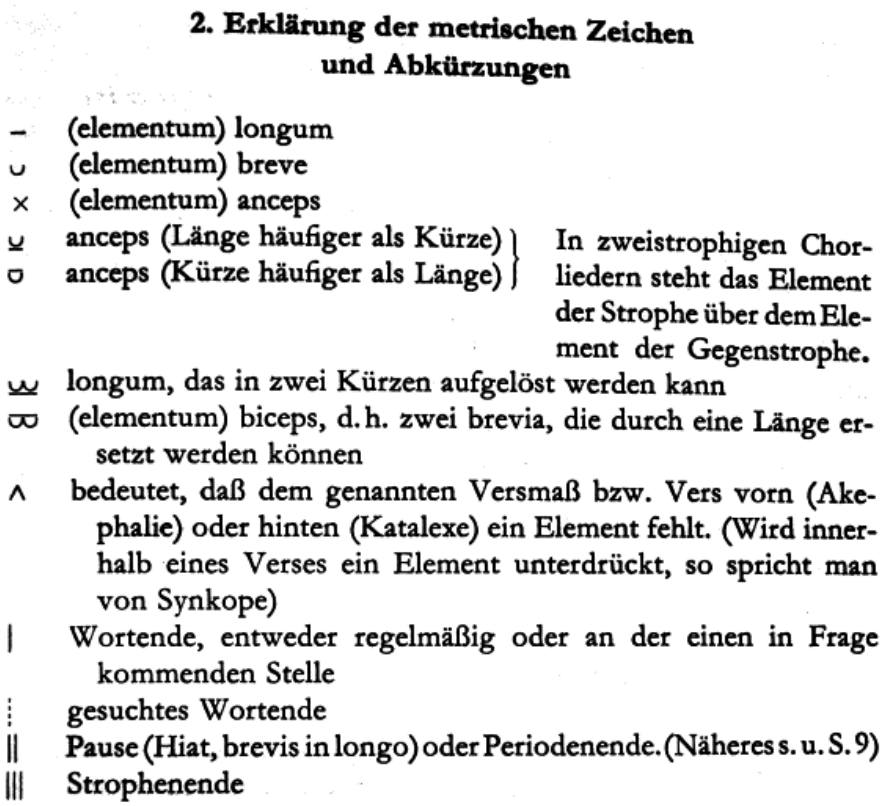


Fig. 1968a-3: *Showing a specimen for U+2E48 TRIPLE VERTICAL LINE (start of last line, besides other symbols in a list of symbols in the book).*



2. Erklärung der metrischen Zeichen und Abkürzungen

– (elementum) longum
⏑ (elementum) breve
× (elementum) anceps
⏒ anceps (Länge häufiger als Kürze)
⏓ anceps (Kürze häufiger als Länge)
} In zweistrophigen Chorliedern steht das Element der Strophe über dem Element der Gegenstrophe.
⏔ longum, das in zwei Kürzen aufgelöst werden kann
⏑⏑ (elementum) biceps, d.h. zwei brevia, die durch eine Länge ersetzt werden können
∧ bedeutet, daß dem genannten Versmaß bzw. Vers vorn (Akephalie) oder hinten (Katalexe) ein Element fehlt. (Wird innerhalb eines Verses ein Element unterdrückt, so spricht man von Synkope)
| Wortende, entweder regelmäßig oder an der einen in Frage kommenden Stelle
⁞ gesuchtes Wortende
‖ Pause (Hiat, brevis in longo) oder Periodenende. (Näheres s. u. S. 9)
‖| Strophenende

Fig. 1968a-78: *Showing specimens for U+2BA7 METRICAL SUPERSCRIPT LONGUM, U+2BA5 METRICAL SUPERSCRIPT BREVE.*

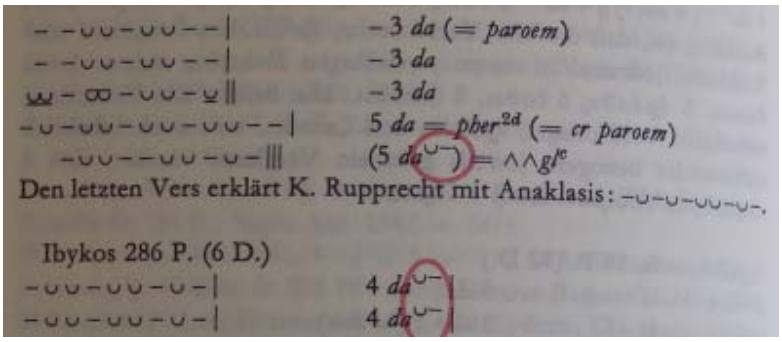


Fig. 1968a-79a: *Showing specimens for U+2BA7 METRICAL SUPERSCRIPT LONGUM, U+2BA5 METRICAL SUPERSCRIPT BREVE, in contrast to the common (not-superscripted) versions of longum and breve.*

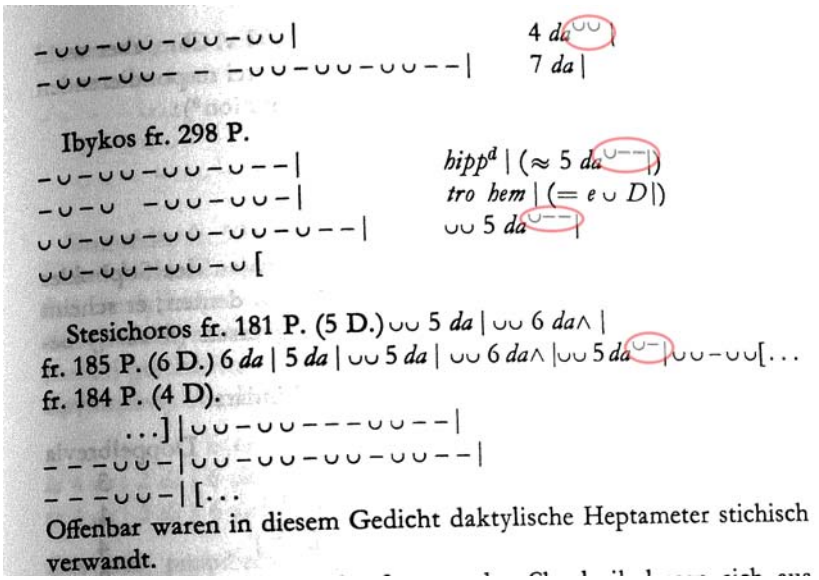


Fig. 1968a-79b: *Showing a specimen for:*
U+2BA5 METRICAL SUPERSCRIPT BREVE,
U+2BA4 METRICAL SUPERSCRIPT ANCEPS,
U+2BA7 METRICAL SUPERSCRIPT LONGUM.

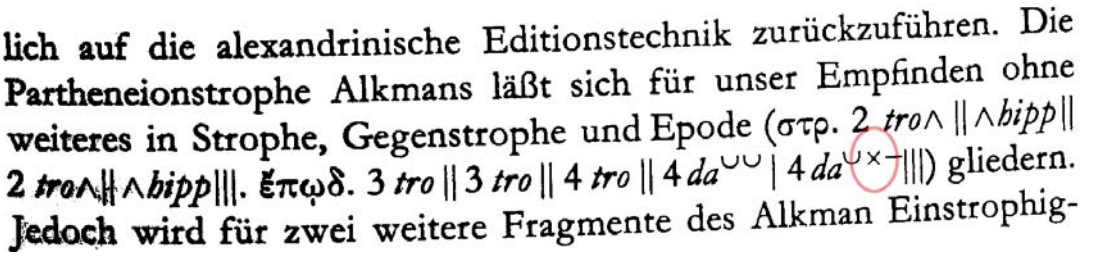
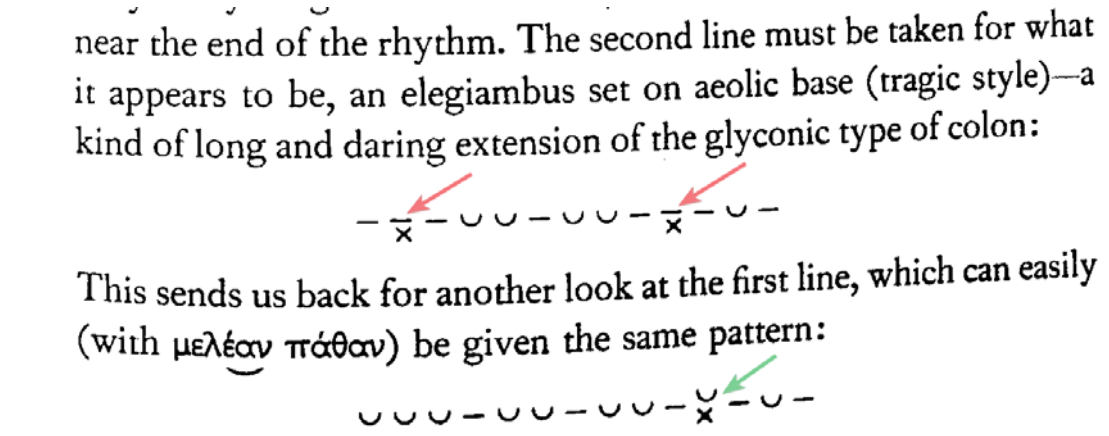


Fig. 1969a-179: *Showing specimens for U+2B8A METRICAL LONG OVER ANCEPS (red), U+2B87 METRICAL SHORT OVER ANCEPS (green).*


near the end of the rhythm. The second line must be taken for what it appears to be, an elegiambus set on aeolic base (tragic style)—a kind of long and daring extension of the glyconic type of colon:

This sends us back for another look at the first line, which can easily (with μελέαν πάθαν) be given the same pattern:

Fig. 1970a-91: *Showing specimens for U+2E49 SHORT VERTICAL LINE.*

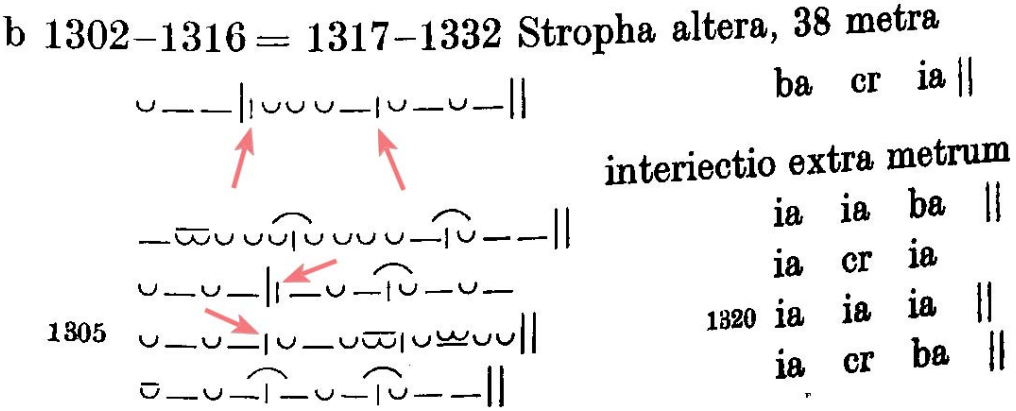


Fig. 1982a-XI: *Showing specimens for U+2B8A METRICAL LONG OVER ANCEPS (orange), U+2B81 METRICAL REVERSED TRISEME (red; in contrast to the "unreversed" triseme (U+23D7)), U+2B82 METRICAL CIRCLE (green), U+2B85 METRICAL DOVETAIL (blue).*

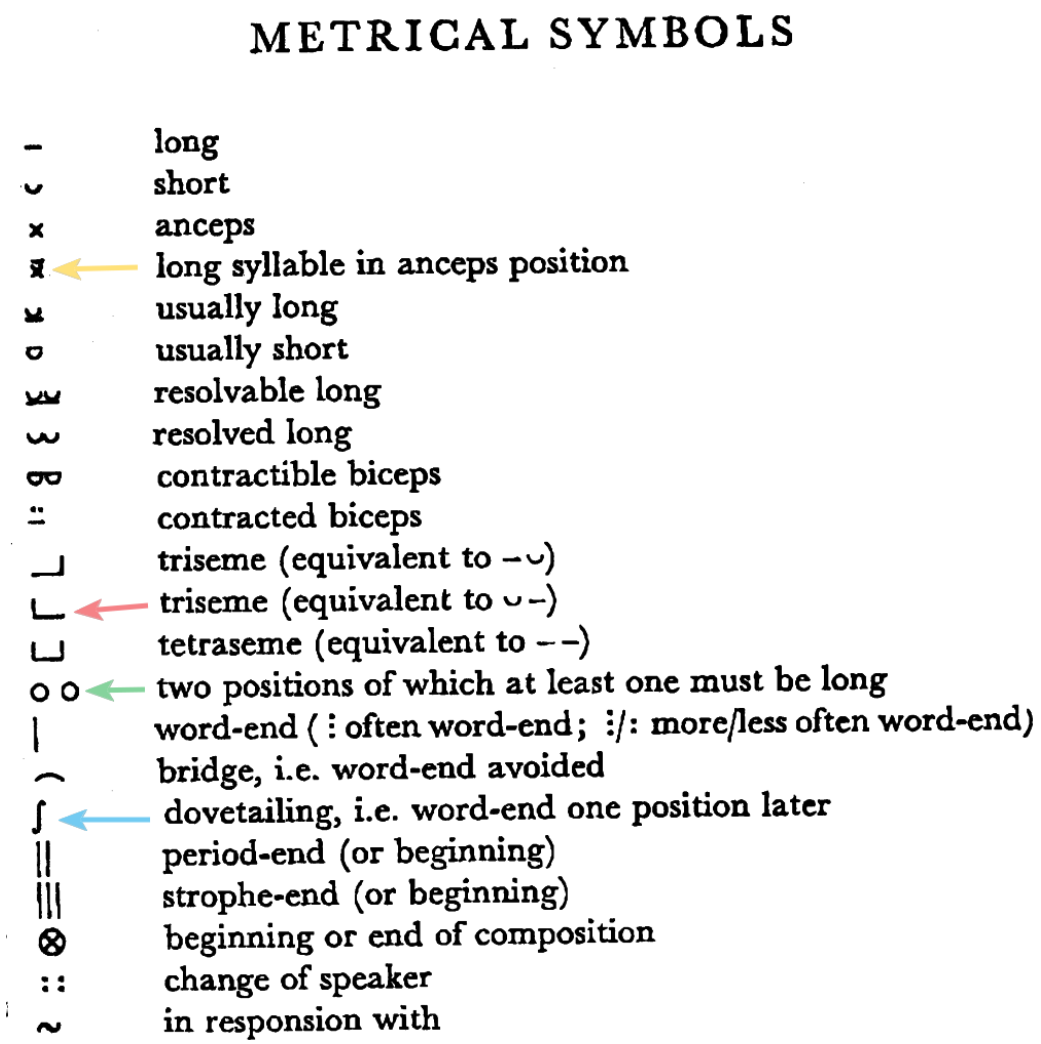


Fig. 1982a-49: *Showing specimens for U+2BA8 METRICAL SUBSCRIPT CATALEXIS (red), U+2BAD METRICAL SHORT COLON SHORT OVER LONG OVER SHORT (green)*

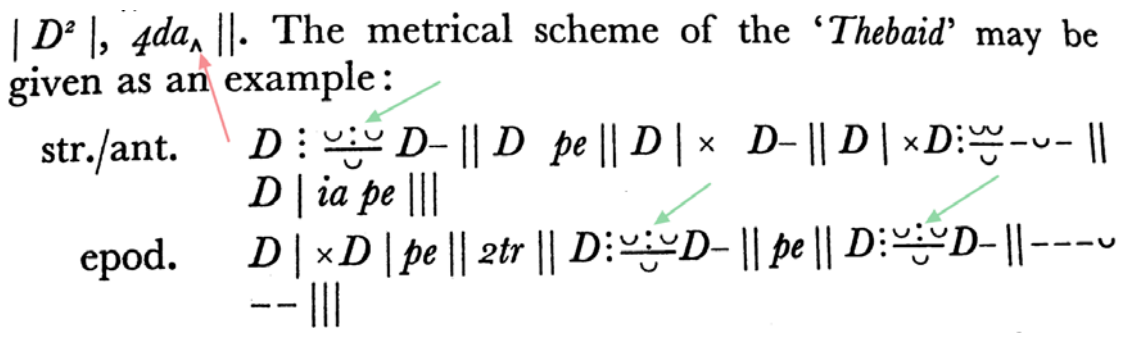
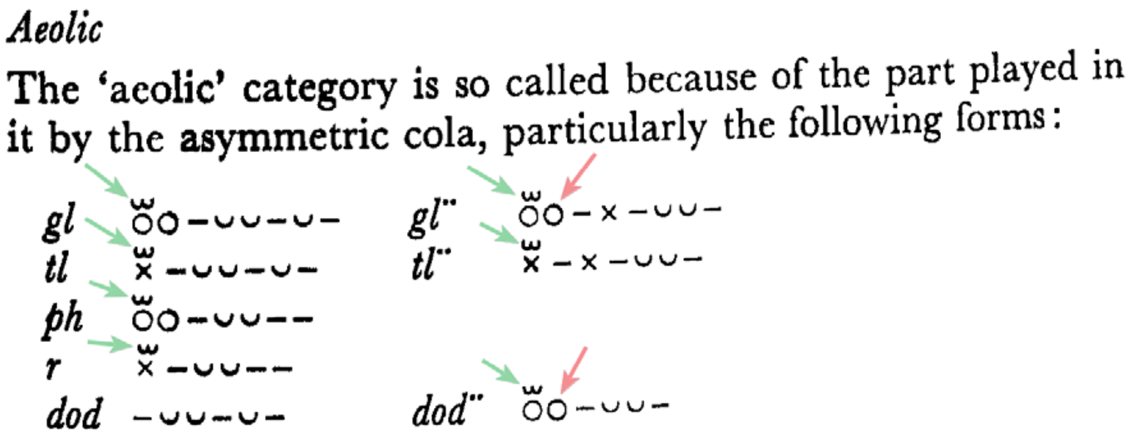


Fig. 1982a-61: *Showing specimens for U+2B82 METRICAL CIRCLE (red), U+20F9 COMBINING METRICAL TWO SHORTS JOINED ABOVE (green)*. Here, the metrical circle has the size of the anceps, to accomplish a harmonic view when the "combining metrical two shorts joined above" is applied. Using e.g. the Unicode "white circle" (U+25CB) is typographically inappropriate here.

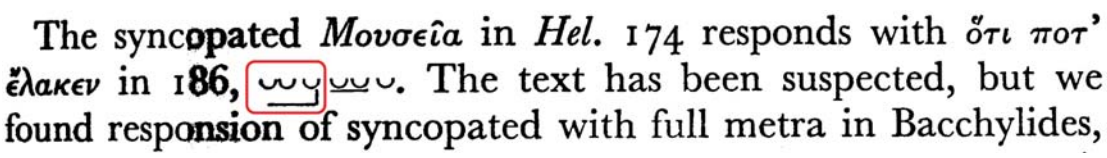


Aeolic

The 'aeolic' category is so called because of the part played in it by the asymmetric cola, particularly the following forms:

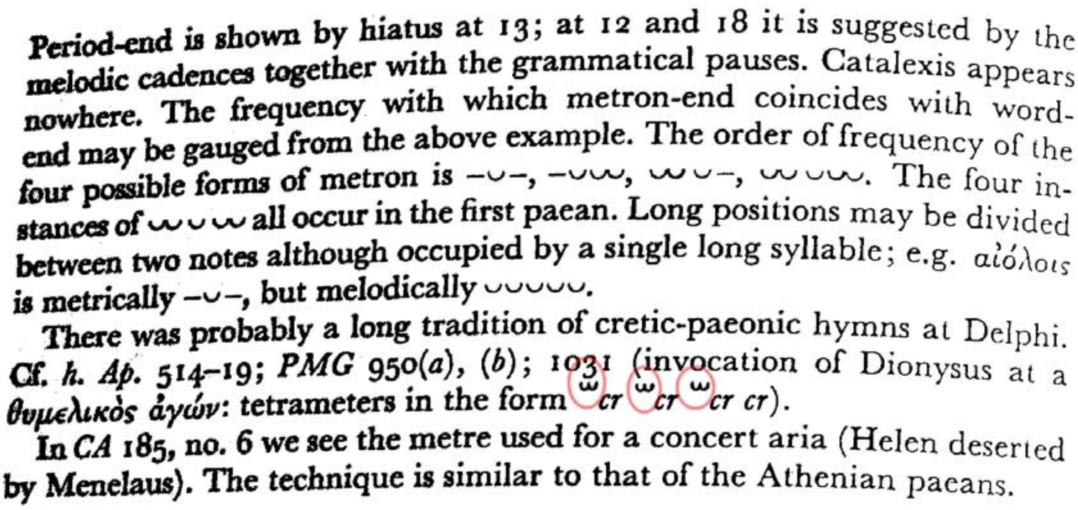
gl	○○⃹ –⏑⏑–⏑–	*gl*¨	○○⃹ – × –⏑⏑–
tl	×⃹ –⏑⏑–⏑–	*tl*¨	×⃹ – × –⏑⏑–
ph	○○⃹ –⏑⏑––		
r	×⃹ –⏑⏑––		
dod	–⏑⏑–⏑–	*dod*¨	○○⃹ –⏑⏑–

Fig. 1982a-103: *Showing specimens for U+2B9C METRICAL LONG TWO AND ONE SHORTS OVER TRISEME.*



The syncopated Μουσεῖα in *Hel.* 174 responds with ὅτι ποτ' ἔλακεν in 186, ⏕⏑⏕⏑⏑. The text has been suspected, but we found responsion of syncopated with full metra in Bacchylides,

Fig. 1982a-146: *Showing specimens for U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED.*



Period-end is shown by hiatus at 13; at 12 and 18 it is suggested by the melodic cadences together with the grammatical pauses. Catalexis appears nowhere. The frequency with which metron-end coincides with word-end may be gauged from the above example. The order of frequency of the four possible forms of metron is –⏑–, –⏑⏕, ⏕⏑–, ⏕⏑⏕. The four instances of ⏕⏑⏕ all occur in the first paean. Long positions may be divided between two notes although occupied by a single long syllable; e.g. αἰόλοις is metrically –⏑–, but melodically ⏑⏑⏑⏑⏑.

There was probably a long tradition of cretic-paeonic hymns at Delphi. Cf. *h. Ap.* 514–19; *PMG* 950(*a*), (*b*); 1031 (invocation of Dionysus at a θυμελικὸς ἀγών: tetrameters in the form ⏕*cr* ⏕*cr* ⏕*cr cr*).

In *CA* 185, no. 6 we see the metre used for a concert aria (Helen deserted by Menelaus). The technique is similar to that of the Athenian paeans.

Fig. 1982a-147: *Showing specimens for U+2B85 METRICAL DOVETAIL (red), U+2BA8 METRICAL SUBSCRIPT CATALEXIS (green),U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED (blue),* U+20F9 COMBINING METRICAL TWO SHORTS JOINED ABOVE (orange).

The majority of ritual chants and formulae are iambic. We find trimeters[23] and various shorter cola, *2ia*, *2ia*$_{\wedge}$, *2tr*, *lk*.[24] Choriambs may appear:

854 ὕσον ὕσον ὦ φίλε Ζεῦ κατὰ τῆς ἀρούρας (= *lk* | *ar*)
876c χελιχελώνα, τί ποιεῖς ἐν τωῖ μέσωι; ω *ia* ∫ *ch* | *ia* ||
— ἔρια μαρύομαι καὶ κρόκαν Μιλησίαν. ω *ia* *ia* | *ia* | *ia* ||

Fig. 1989a-460: *Showing specimens for U+2E49 SHORT VERTICAL LINE.*

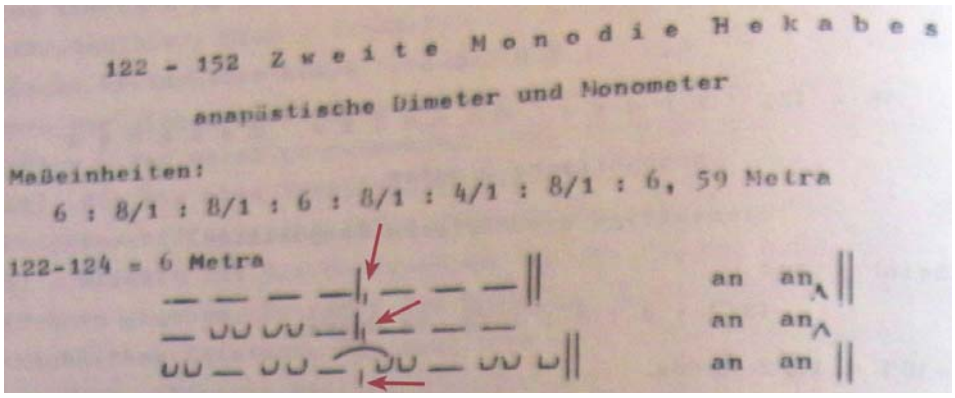


Fig. 1993a-3a: *Showing specimens for U+2B8E METRICAL SHORT OVER TWO SHORTS, U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS (red), and U+1DFA COMBINING DOUBLE RIGHTWARDS ARROW ABOVE , (U+0362) (green). The blue arrows denote dot and dieresis (U+0307, U+0308) applied to U+2B7F METRICAL LONGUM.*

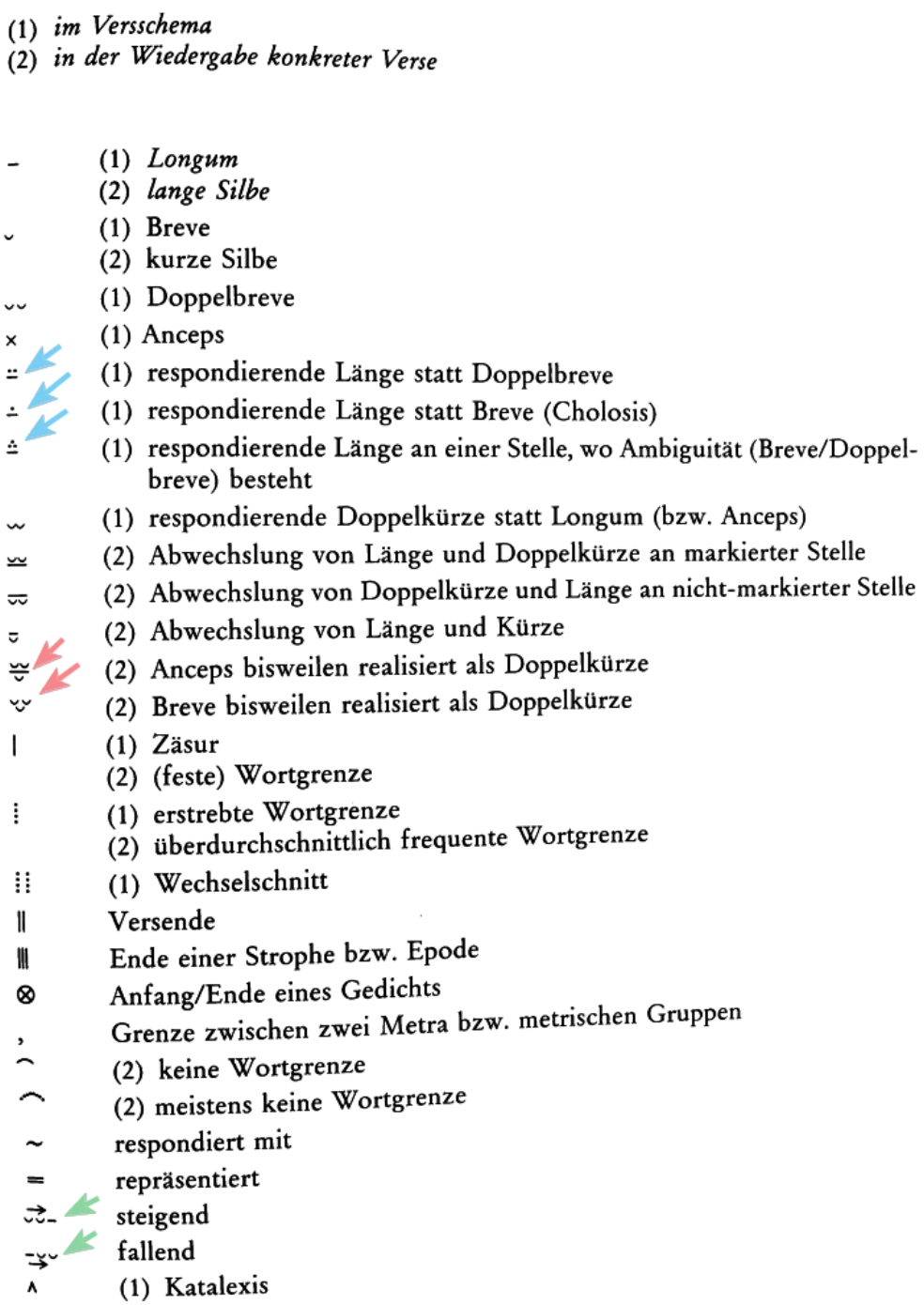


Fig. 1993a-3b: *Enlarged excerpt from fig. 1993a-3a, showing a specimen for U+1DFB COMBINING DOTTED DOUBLE INVERTED BREVE.*

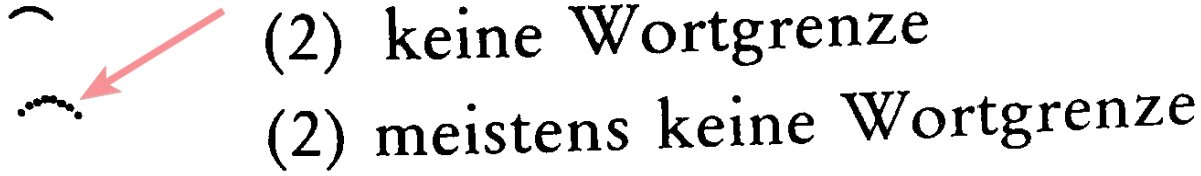


Fig. 1993a-4: *Showing specimens for U+209E SUPERSCRIPT COMMERCIAL AT SIGN (red). (The symbol between the letters marked blue is considered to be U+02C8).*

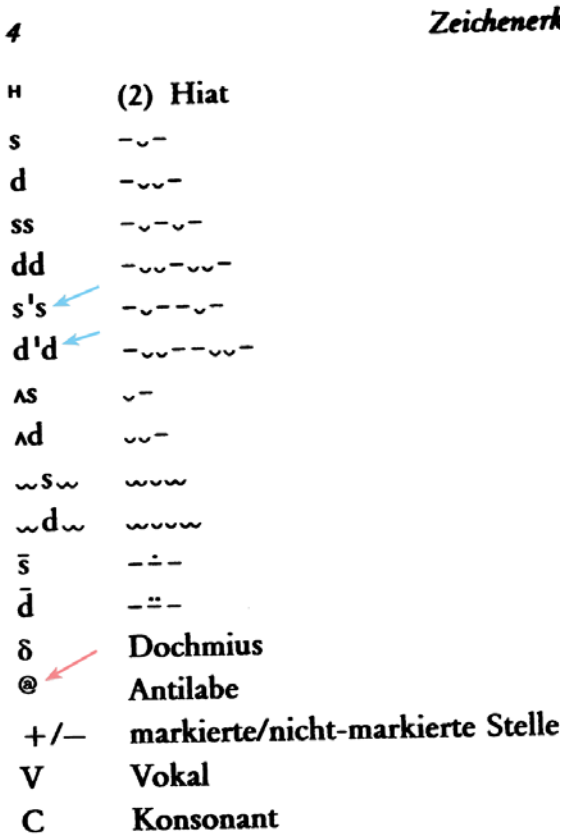
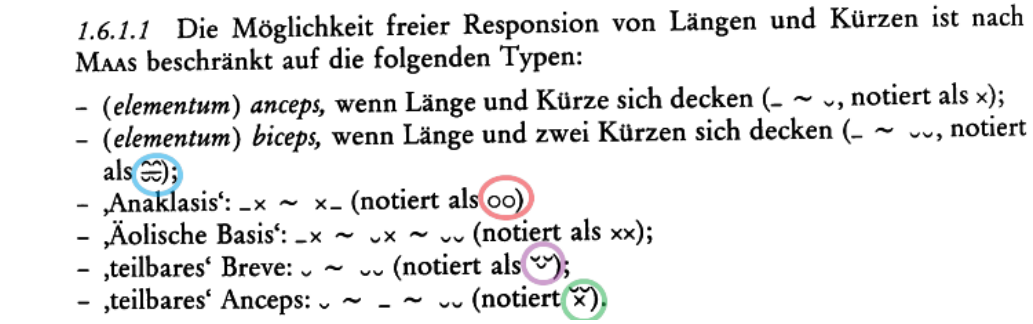


Fig. 1993a-10a: *Showing specimens for U+U+2B9E METRICAL LONG OVER CATALEXIS, U+2B9F METRICAL TRISEME OVER CATALEXIS, U+2BA1 METRICAL TETRASEME OVER CATALEXIS, U+2BA2 METRICAL PENTASEME OVER CATALEXIS.*

1.1.4 Ein vom Rhythmus geforderter χρόνος, der nicht durch einen Teil der λέξις zur Darstellung gebracht wird, heißt χρόνος κενός' oder λεῖμμα (ʌ). Dem verschiedenen Umfang der χρόνοι entsprechend gibt es χρόνοι κενοὶ δίσημοι (⏑ʌ), τρίσημοι (–ʌ), τετράσημοι (⏑ʌ und πεντάσημοι (–ʌ).

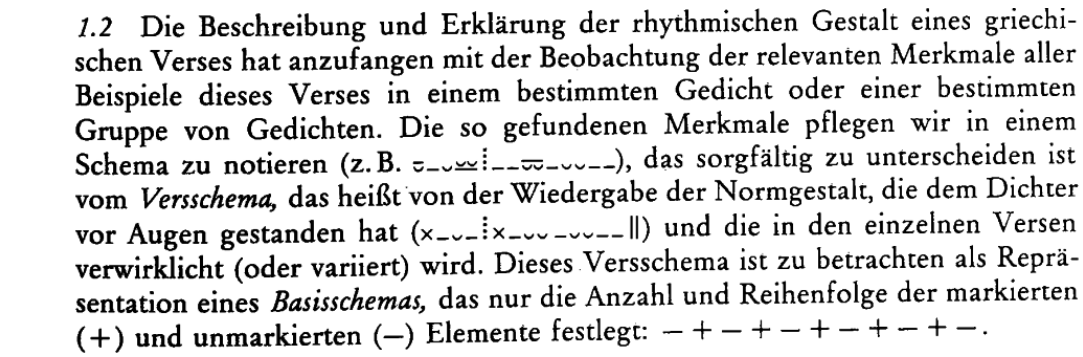
Fig. 1993a-18: *Showing specimens for U+2B82 METRICAL CIRCLE (red), U+2B95 METRICAL TWO TURNED SHORTS OVER LONG OVER TWO SHORTS (blue), U+2B8B METRICAL TWO SHORTS OVER SHORT (green), U+2B88 METRICAL TWO SHORTS OVER ANCEPS (purple).*
Note that for the metrical circle U+2B82 METRICAL CIRCLE (red), a small glyph is used here.



1.6.1.1 Die Möglichkeit freier Responsion von Längen und Kürzen ist nach Maas beschränkt auf die folgenden Typen:

- (*elementum*) *anceps,* wenn Länge und Kürze sich decken (– ~ ⏑, notiert als ×);
- (*elementum*) *biceps,* wenn Länge und zwei Kürzen sich decken (– ~ ⏑⏑, notiert als ⏓);
- ‚Anaklasis': –× ~ ×– (notiert als ○○)
- ‚Äolische Basis': –× ~ ⏑× ~ ⏑⏑ (notiert als ××);
- ‚teilbares' Breve: ⏑ ~ ⏑⏑ (notiert als ⏔);
- ‚teilbares' Anceps: ⏑ ~ – ~ ⏑⏑ (notiert ⊗).

Fig. 1993a-40: *Showing specimens for U+2B7F METRICAL LONGUM, using a font where its glyphic appearance is completetly different from any dashes or minus signs.*
(Note: the page number was not readable in the scan, therefore, the page number part of this figure is arbitrary. The page is the one with the chapter headline "I. Prinzipien, Terminologie").



1.2 Die Beschreibung und Erklärung der rhythmischen Gestalt eines griechischen Verses hat anzufangen mit der Beobachtung der relevanten Merkmale aller Beispiele dieses Verses in einem bestimmten Gedicht oder einer bestimmten Gruppe von Gedichten. Die so gefundenen Merkmale pflegen wir in einem Schema zu notieren (z. B. ⏓–⏑⏑⁞––⏓–⏑⏑––), das sorgfältig zu unterscheiden ist vom *Versschema,* das heißt von der Wiedergabe der Normgestalt, die dem Dichter vor Augen gestanden hat (×–⏑⏑–⁞×–⏑⏑–⏑⏑––‖) und die in den einzelnen Versen verwirklicht (oder variiert) wird. Dieses Versschema ist zu betrachten als Repräsentation eines *Basisschemas,* das nur die Anzahl und Reihenfolge der markierten (+) und unmarkierten (–) Elemente festlegt: – + – + – + – + – + –.

Fig. 1993a-119: *Showing specimens for U+209E SUPERSCRIPT COMMERCIAL AT SIGN (red) and U+2B94 METRICAL SHORT OVER LONG OVER TWO SHORTS (green).*

korrespondierenden Stellen: –⏑⏑–⏑⏑–⁝⏑⁝⏑–⏒/–‖.[42] Wo die Sequenz in (meist respondierenden) lyrischen Partien in der Tragödie erscheint, zeigt sie überwiegend Wortende nach dem dritten Longum (Soph., *El.* 130–3 ~ 146–9, 166–70 ~ 187–90).[43] Am Ende eines mit …–⏑⏑‖ schließenden daktylischen Tetrameters findet sich – anders als z. B. in den ‚lyrischen' Hexametern bei Eur., *Suppl.* 277 und 278 – kein Hiat. Schwache Wortgrenzen am Ende der Sequenz finden sich z. B. bei Alkm., PMG 56, 1, und Soph., *Ant.* 350, Eur., *Phoen.* 1496, Ar., *Nub.* 569.[44]

6.2.6 ddddd–

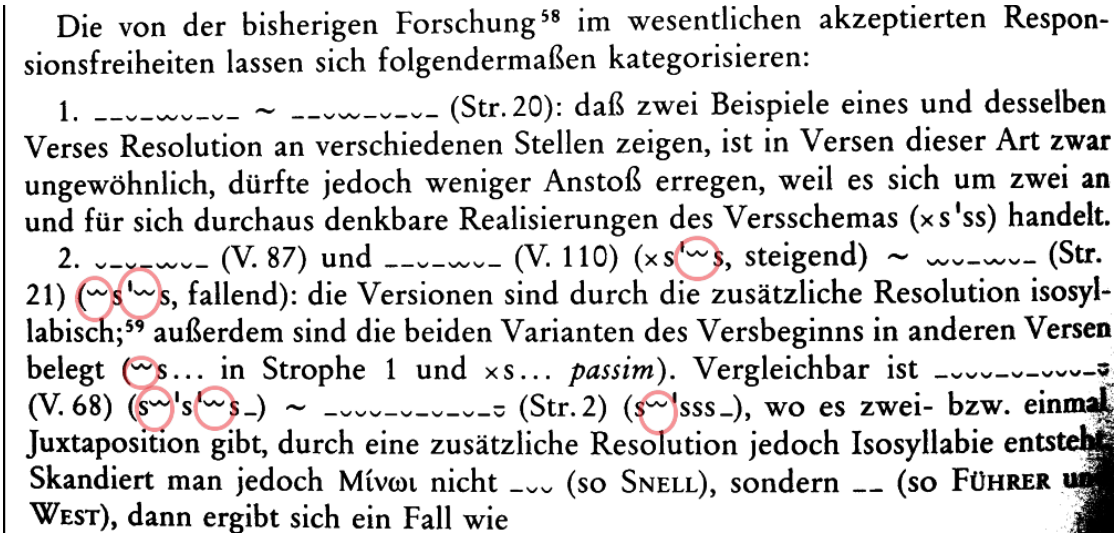
Der daktylische Hexameter erscheint bisweilen als Sprechvers (nach White[45] „recitative") in der Komödie, wie z. B. Ar., *Eq.* 1080–95, *Pax* 1063–1114, 1270–83.[46] Die Verse zeigen nicht selten Antilabe und haben auch sonst Merkmale, die sich mit dem üblichen Ethos des Hexameters[47] schlecht vertragen, wie Ar., *Eq.* 1083–4:

> @ ποίαν Κυλλήνην; @ τὴν τούτου χεῖρ' ἐποίησεν
> Κυλλήνην ὀρθῶς, ὅτιή φησ', ἔμβαλε κυλλῇ.

Fig. 1993a-123: *Showing specimens for U+2B8D METRICAL TWO SHORTS OVER LONG OVER SHORT (red) and U+2B88 METRICAL TWO SHORTS OVER ANCEPS (green).*

6.3.1.4 Obwohl das *archebouleion* (⏓–⏑⏑–⏑⏑–⏑⏑–⏑––‖: ⏓ddds–) nach Hephaistion (28, 15 C.) von Archeboulos κατακόρως verwendet wurde, ist von ihm nur ein einziger Vers dieser Form erhalten (μόρον οὐ νοέοντες ἐφιστάμενον κατάντην: Trichas 384, 26 C. = *SH* 124). Der Vers wurde von Kallimachos stichisch ver-

Fig. 1993a-174: *Showing specimens for U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED.*



Die von der bisherigen Forschung[58] im wesentlichen akzeptierten Responsionsfreiheiten lassen sich folgendermaßen kategorisieren:

1. _ ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ _ ~ _ ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ _ (Str. 20): daß zwei Beispiele eines und desselben Verses Resolution an verschiedenen Stellen zeigen, ist in Versen dieser Art zwar ungewöhnlich, dürfte jedoch weniger Anstoß erregen, weil es sich um zwei an und für sich durchaus denkbare Realisierungen des Versschemas (×s'ss) handelt.

2. ⏑ ⏑ – ⏑ ⏑ – (V. 87) und _ ⏑ ⏑ – ⏑ ⏑ – (V. 110) (×s'⏑s, steigend) ~ ⏑ ⏑ – ⏑ ⏑ – (Str. 21) (⏑s'⏑s, fallend): die Versionen sind durch die zusätzliche Resolution isosyllabisch;[59] außerdem sind die beiden Varianten des Versbeginns in anderen Versen belegt (⏑s… in Strophe 1 und ×s… *passim*). Vergleichbar ist _ ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ – ⏑ (V. 68) (s⏑'s'⏑s_) ~ _ ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ – ⏑ (Str. 2) (s⏑'sss_), wo es zwei- bzw. einmal Juxtaposition gibt, durch eine zusätzliche Resolution jedoch Isosyllabie entsteht. Skandiert man jedoch Μίνωι nicht _ ⏑ ⏑ (so Snell), sondern _ – (so Führer und West), dann ergibt sich ein Fall wie

Fig. 1993a-186: *Showing specimens for U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED (red) and U+2BA8 METRICAL SUBSCRIPT CATALEXIS (green).*

5. Ar., *Ach.* 492 ~ 568 (×s×s×s ~ ⏑s'ss's) besteht die Abweichung darin, daß es zweimal Juxtaposition statt Prolongation (und demzufolge einen verschiedenen Status der betreffenden Kürzen) gibt.

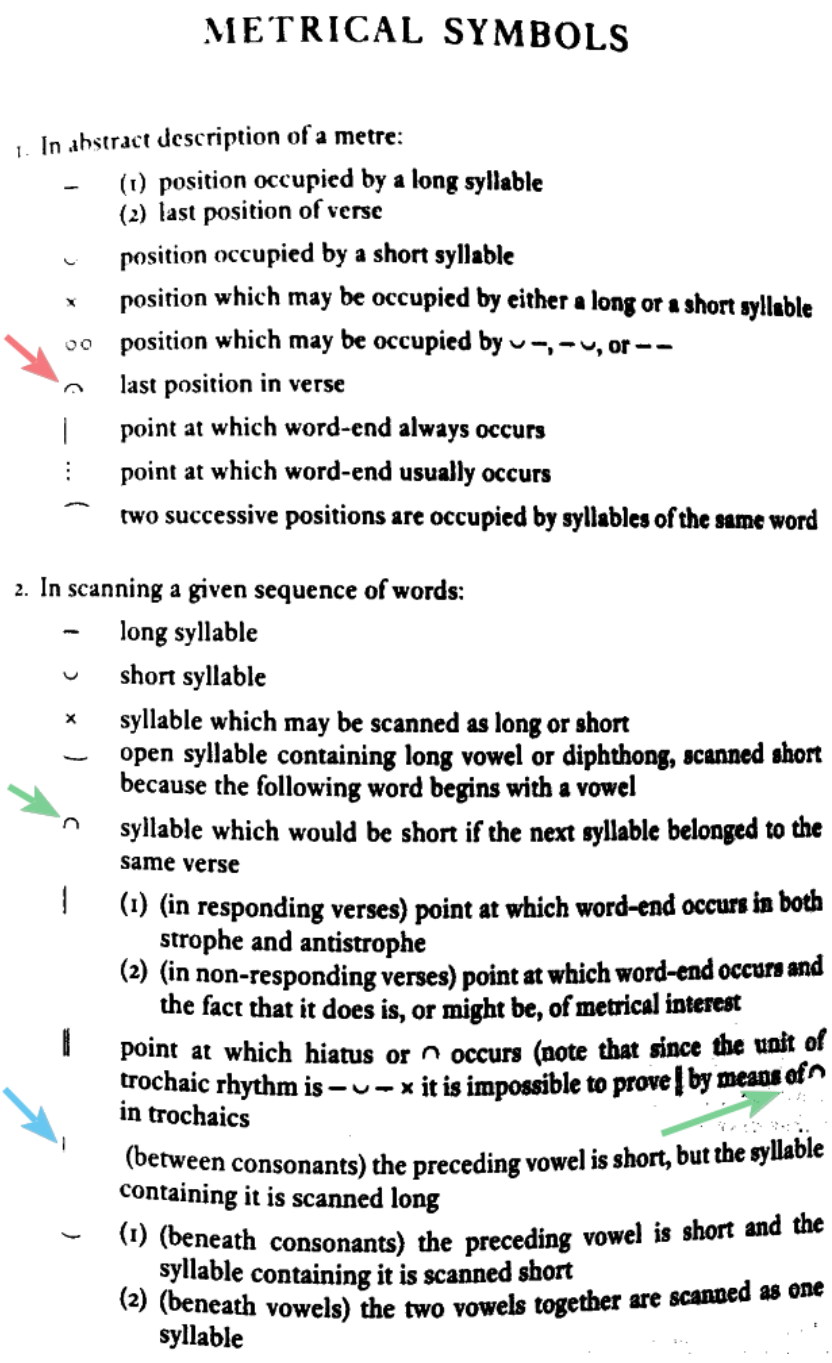
6. Seltsam ist Ar., *Pax* 350/1 ~ 588/9, wo s⏑'s'⏑s⏑⏜ (12 Elemente, 15 Silben) und s⏑'sss⏑'s⏑⏜ (14 Elemente, 16 Silben: stumpf gegenüber klingend, drei bzw. zwei Juxtapositionen, drei bzw. zwei Resolutionen) nicht nur miteinander, sondern außerdem noch mit 389/90 (sss'ds_ oder auch ssdds_: 13 Elemente, 14 Silben) respondieren.[24]

Fig. 1993a-203: *Showing specimens for U+209E SUPERSCRIPT COMMERCIAL AT SIGN.*

1.5.3 649–67 ~ 678–96 (*Amoibaion*)

1.	⏑ – ⏑ – – | ⏑ – – – | ⏑ – | – ⏑ – ‖	⏑ss's's's
2.	@ ⏑ – ⏑ – ⏑ – ⏑ – ‖	×s×s
3.	@ ⏑ – ⏑ – ⏑ – ⏑ – | – ⏑ – ⏑ – ⏑ – | ⏑ – ⏑ – ‖	⏑ss's's'sss
4.	@ _ ⏑ – ⏑ – | @ _ ⏑ | @ _ – ⏑ – ⏑ – ‖	×s×s×s
5.	@ ⏑ ⏑ – | ⏑ – | – ⏑ ⏑ – ⏑ – | ⏑ ⏑ – ⏑ ⏑ – ⏑ – – | ⏑ – ‖	δδδδ
6.	@ _ ⏑ – ⏑ – ⏑ – | ⏑ ⏑ – ⏑ – – ⏑ – ⏑ – ‖	×s×⏑s×s
7.	_ ⏑ – ⏑ ⏑ – | ⏑ – ⏑ – | ⏑ ⏑ – ⏑ – ‖	×s×s×s
8.	@ _ – – – – ⏑ – ⏑ – ⏑ – ‖	s̄'sss
9.	_ ⏑ ⏑ – ⏑ ⏑ – ⏑ | ⏑ ⏑ – ⏑ ⏑ – ⏑ ⏑ | ⏑ – – – | ⏑ – ⏑ | – – – – ‖	δδδδ
10.	_ ⏑ – – – ⏑ – | – ⏑ – ⏑ – – – – ⏑ – ⏑ | – ⏑ – ‖	s's'ssss̄ss
11.	⏑ – – – – ⏑ – ⏑ – – ‖‖	⏑ss̄ss_.

Fig. 1993b-107: *Showing specimens for U+2B7D METRICAL INVERTED BREVE + (U+0323) (red), U+2B7D METRICAL INVERTED BREVE (green), U+2E49 SHORT VERTICAL LINE (blue).*



METRICAL SYMBOLS

1. In abstract description of a metre:

– (1) position occupied by a long syllable
(2) last position of verse

⏑ position occupied by a short syllable

× position which may be occupied by either a long or a short syllable

⏑⏑ position which may be occupied by ⏑ –, – ⏑, or – –

⏜ last position in verse

| point at which word-end always occurs

⋮ point at which word-end usually occurs

‿ two successive positions are occupied by syllables of the same word

2. In scanning a given sequence of words:

– long syllable

⏑ short syllable

× syllable which may be scanned as long or short

‿ open syllable containing long vowel or diphthong, scanned short because the following word begins with a vowel

⏜ syllable which would be short if the next syllable belonged to the same verse

| (1) (in responding verses) point at which word-end occurs in both strophe and antistrophe
(2) (in non-responding verses) point at which word-end occurs and the fact that it does is, or might be, of metrical interest

‖ point at which hiatus or ⏜ occurs (note that since the unit of trochaic rhythm is – ⏑ – × it is impossible to prove ‖ by means of ⏜ in trochaics

˘ (between consonants) the preceding vowel is short, but the syllable containing it is scanned long

‿ (1) (beneath consonants) the preceding vowel is short and the syllable containing it is scanned short
(2) (beneath vowels) the two vowels together are scanned as one syllable

Fig. 1997a-350: *Showing specimens for U+2B89 METRICAL TURNED SHORT OVER TWO SHORTS OVER ANCEPS (red), U+2B9A METRICAL TURNED SHORT OVER TWO SHORTS OVER LONG (orange), U+2B8A METRICAL LONG OVER ANCEPS (green), U+ U+2B86 METRICAL DOWNWARDS TIE (blue), U+20FA COMBINING METRICAL DOWNWARDS TIE ABOVE (purple)*

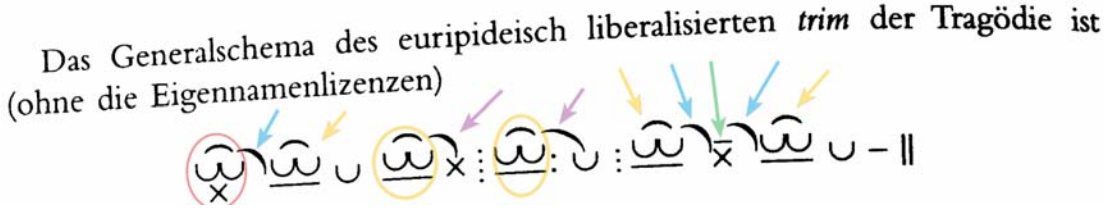

Das Generalschema des euripideisch liberalisierten *trim* der Tragödie ist (ohne die Eigennamenlizenzen)

Fig. 1997a-352a: *Showing specimens for U+2B7C METRICAL ANCEPS , U+2BA8 METRICAL SUBSCRIPT CATALEXIS (red), U+1AB1 COMBINING DIGIT ONE ABOVE, U+1AB2 COMBINING DIGIT TWO ABOVE, U+1AB3 COMBINING DIGIT THREE ABOVE.*

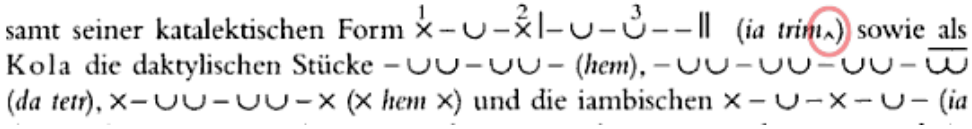

samt seiner katalektischen Form $\overset{1}{\times} - \cup - \overset{2}{\times} | - \cup - \overset{3}{\cup} - - \|$ (*ia trim*$_{\wedge}$) sowie als Kola die daktylischen Stücke $- \cup\cup - \cup\cup -$ (*hem*), $- \cup\cup - \cup\cup - \cup\cup - \overline{\cup}$ (*da tetr*), $\times - \cup\cup - \cup\cup - \times$ ($\times$ *hem* $\times$) und die iambischen $\times - \cup - \times - \cup -$ (*ia*

Fig. 1997a-352b: *Showing specimens for Ux27BC (green), U+2BA8 METRICAL SUBSCRIPT CATALEXIS (red), U+2E48 TRIPLE VERTICAL LINE (blue)*

In Archil. 168–196a finden sich die folgenden Epoden:

(1) 2gliedrig homogen:
1. *ia trim* ‖ *ia dim* ||| (172–81; Hippon. 118 W.)
2. *da hex* ‖ *da tetr*$_{\wedge}$ ||| (195)

(2) 2gliedrig heterogen:
3. *ia trim* ‖ *hem* ||| (182–7; Hippon. 115–7 W.)
4. *da hex* ‖ *ia dim* ||| (193–4)
5. $\times$*hem*$\times$ | (‖?) *ith* ‖ (|||?) (168–71)

Fig. 1997a-354: *Showing specimens for U2BA8, U+2E48 TRIPLE VERTICAL LINE.*

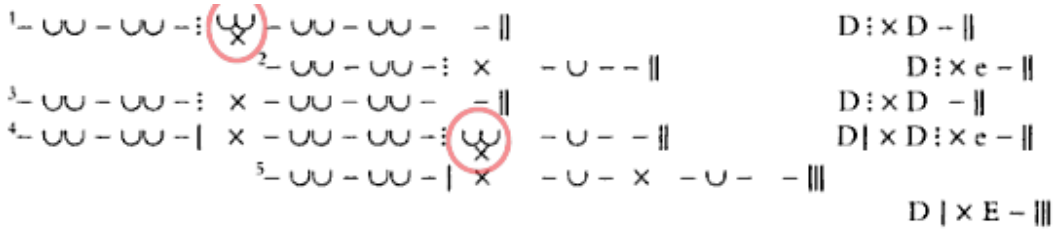
In der triadischen Großbauform Strophe – Gegenstrophe – Epode treten *da* und Daktyloepitriten (*6.5.2*) bei Stesichoros auf, in der *Geryoneis* S7–87:

Str./Ant. $^{1}\overline{\cup}$ 3 *da*$_{\wedge}$ ‖ $^{2}\overline{\cup}$ 7 *da*$_{\wedge}$ ‖ $^{3}\overline{\cup}$ 5 *da*$_{\wedge}$ ‖ $^{4}\overline{\cup}$ 14 *da*$_{\wedge\wedge}$ |||
Ep. $^{1}\overline{\cup}$ 7 *da*$_{\wedge}$ ‖ ^{2}14 *da*$_{\wedge}$ ‖ $^{3}(\overline{\cup}?)$ 6 *da*$_{\wedge\wedge}$ |||

Fig. 1997a-358: *Showing specimens for U+2BA6 METRICAL SUPERSCRIPT TWO SHORTS JOINED.*

Kretiker (– ∪ – *cr*, 'päonisch' – ∪ ⏑⏑ *cr*⏑⏑) sind in der Lyrik und in der Tragödie als Versmaß ganzer Strophen oder Perioden selten (Alcm. 58: 4 *cr* | – ∪ – – –||, Aesch. *Suppl.* 418–22 = 423–7 : 11 *cr* ||| und Eur. *Or.* 1420–24: 12 *cr* ||), in der Komödie dagegen (besonders beim frühen Aristophanes) umso häufiger. Das Stasimon Ar. *Ach.* 971–87 = 988–99 z. B. beginnt mit drei aus *cr* und *cr*⏑⏑ gemischten Perioden zu 6 || 5 || 6 || Metren, es folgt 9mal der beliebte *tetr cr*⏑⏑ *cr*⏑⏑ *cr*⏑⏑ *cr* ||, den Schluß bildet ein *tro tetr*‸ |||.

Fig. 1997a-360a: *Showing specimens for U+2B88 METRICAL TWO SHORTS OVER ANCEPS.*



Die gelegentlich 'daktylische' Doppelkürze im Anceps, durch die der 1. Vers z. B. zum *hex* wird, ist eine Eigenheit des Stesichoros.

Fig. 1997a-360b: *Showing specimens for U+2B82 METRICAL CIRCLE (metrical circle) and U+2B7C METRICAL ANCEPS (anceps).*
In this example, the metrical circle resembles U+25CB WHITE CIRCLE.

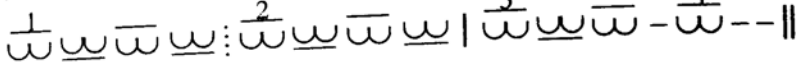
Die Grundkola äolischer Lieder sind mit ihren überwiegend antiken Namen:

der Glyconeus	○○ – ∪∪ – ∪ –	*gl*
der Pherecrateus	○○ – ∪∪ – –	*ph*
der Hipponacteus	○○ – ∪∪ – ∪ – –	*hipp*
der Telesilleus	× – ∪∪ – ∪ –	*tel* (= ‸*gl*)
das Reizianum	× – ∪∪ – –	*reiz* (= ‸*ph*)
der Hagesichoreus	× – ∪∪ – ∪ – –	*hag* (= ‸*hipp*)

Letztlich handelt es sich um die Varianten eines Grundkolons. ○○ bezeichnet die von G. Hermann als '(äolische) Basis' beschriebene Erscheinung zweier Ancepspositionen ××,

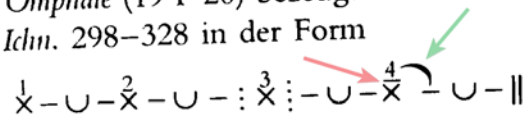
Fig. 1997a-362: *Showing specimens for U+2B8A METRICAL LONG OVER ANCEPS (red) and U+20FA COMBINING METRICAL DOWNWARDS TIE ABOVE (green).*

teilt bei Aristophanes die Freiheiten des *trim* (*6.3.3*) und kehrt in strengerer Form bei Menander *Dysc.* 880–958 wieder;
der schon von Epicharm gepflegte katalektische anapästische *tetr* (4 $an_{\wedge}$ ‖)



soll in der Tragödie allein von Phrynichos benutzt worden sein (3 T 12) und ist inzwischen in dem Satyrspiel(?)-Fragment adesp. F 646a (*Musa Tragica* 250–3) aufgetaucht. – Über die *an* s. u. *6.5.1.*

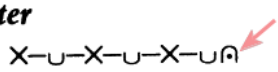
Der vereinzelt für Ions *Omphale* (19 F 20) bezeugte akatalektische iambische *tetr* ist überraschend in Soph. *Ichn.* 298–328 in der Form



aufgetaucht: Die Hauptzäsur ist hier auffällig oft durch Wortende nach langem 2. Anceps () antizipiert.

Fig. 1997b-361: *Showing a specimen for U+2B7E METRICAL CORONA, showing its typographical appearance being different from a turned breve.*

Der ***Trimeter***



ist ähnlich konstruiert wie sein griechisches Pendant. Die Zäsur tritt vorwiegend nach dem 5. Element auf:

Sen. *Tro.* 3 *ănĭmūmquĕ rĕbūs | crĕdŭlŭm lāetĭs dĕdĭt*
Petron. *Sat.* 89 (*Tr. hal.* 1) *iām dĕcĭmă măestōs, | ĭntĕr āncĭpĭtēs mĕtŭs;*

Fig. 1997b-365: *Showing specimens for U+2B95 METRICAL TWO TURNED SHORTS OVER LONG OVER TWO SHORTS (red), U+2B7E METRICAL CORONA (green).*

elementum breve: kann nur von einer einzelnen kurzen Silbe gebildet werden.
elementum longum: vorzugsweise von einer langen Silbe gebildet, kann aber auch von zwei kurzen gebildet werden.
elementum biceps: vorzugsweise von zwei kurzen Silben gebildet, kann aber auch von einer einzelnen langen Silbe gebildet werden.
elementum anceps: kann von einer kurzen oder langen Silbe oder zwei kurzen Silben gebildet werden.
elementum indifferens: wird immer von einer einzelnen Silbe, ob kurz oder lang, gebildet.

Fig. 1997b-367: *Showing specimens for U+2B95 METRICAL TWO TURNED SHORTS OVER LONG OVER TWO SHORTS, U+2B7E METRICAL CORONA (last character in last line).*

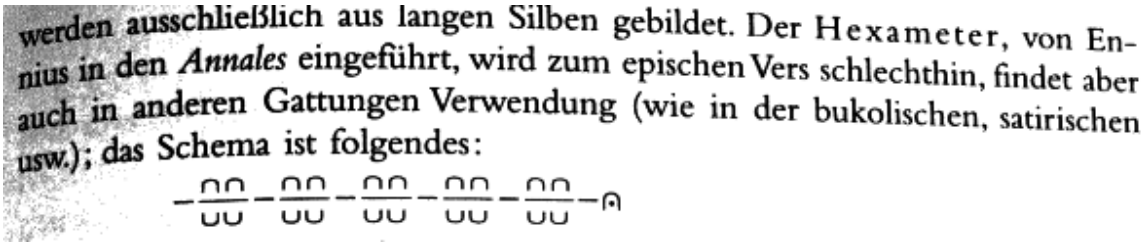

werden ausschließlich aus langen Silben gebildet. Der Hexameter, von Ennius in den *Annales* eingeführt, wird zum epischen Vers schlechthin, findet aber auch in anderen Gattungen Verwendung (wie in der bukolischen, satirischen usw.); das Schema ist folgendes:

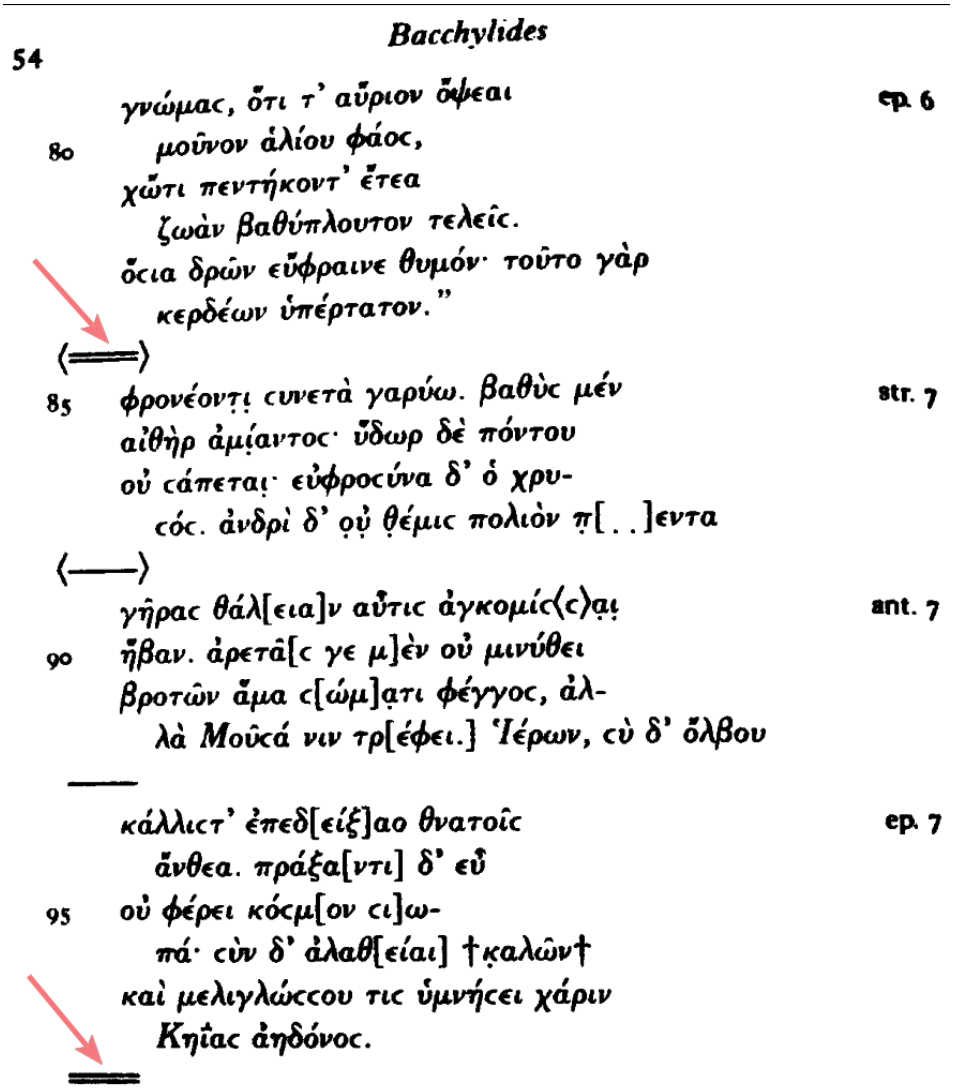
Fig. 1998a-1: *Showing specimens for U+2B93 METRICAL LONG OVER TWO SHORTS WITH VERTICAL BAR, U+2B99 METRICAL TWO SHORTS OVER LONG WITH VERTICAL BAR, U+2B8C METRICAL TURNED SHORT OVER LONG OVER SHORT.*

ANAXIPHORMINX

WINDOWS TRUETYPE V. 4

SYMBOL		KEY	ANSI
(14 pt)	SCANSION SYMBOLS		
—	longum	q	113
⏑	breve	k *or* w	107/119
×	anceps	x	120
⏑̣	responding long for double short	f	102
—̣	responding long for single short	g	103
∴	responding long where there is ambiguity	h	104
⏑̣	responding double short for long	r	114
⏑⏑	long/double short	t	116
⏑⏑	double short/long	y	121
⏑	single short/long	a	97
⏑	long/single short	u	117
⏑⏑	short/long/double short	i	105
⏑×	anceps/double short (‘teilbares Anceps’)	b	98
⏑⏑	single short/double short (‘teilbares Breve’)	o	111
—	long with ictus	ê	234
⏑	short with ictus	ë	235
⏑	double short/long with word boundary	à	224
⏑	long/double short with word boundary	â	226
⏑	half ‘biceps’	m	109
⏑⏑	‘biceps’	n	110
o	(half) ‘Anaklasis’	ã	227
^	kenos (leimma)	^	94
⊤	trisemos	T	84
⊔	tetrasemos	W	87
⊞	pentasemos	X	88
⏑	kenos disemos	j	106
⊤	kenos trisemos	L	76
⊔	kenos tetrasemos	M	77
⊞	kenos pentasemos	Q	81
—̈	long with two dots	Â	194
—⋮	long with three dots	Ê	202

Fig. 2001a-54: *Showing specimens for U+2E4D DOUBLE TWO-EM DASH, using together with the (single) two-em dash (U+2E3A) and angle brackets (U+27E8/U+27E9) to mark different levels of strophe separating.*



Bacchylides

54

γνώμας, ὅτι τ' αὔριον ὄψεαι — ep. 6
μοῦνον ἁλίου φάος,
χὥτι πεντήκοντ' ἔτεα
ζωὰν βαθύπλουτον τελεῖc.
ὅcια δρῶν εὔφραινε θυμόν· τοῦτο γὰρ
κερδέων ὑπέρτατον."

⟨═══⟩

φρονέοντι cυνετὰ γαρύω. βαθὺc μέν — str. 7
αἰθὴρ ἀμίαντος· ὕδωρ δὲ πόντου
οὐ cάπεται· εὐφροcύνα δ' ὁ χρυ-
cόc. ἀνδρὶ δ' οὐ θέμιc πολιὸν π[..]εντα

⟨——⟩

γῆρας θάλ[εια]ν αὖτιc ἀγκομίc⟨c⟩αι — ant. 7
ἦβαν. ἀρετᾶ[c γε μ]ὲν οὐ μινύθει
βροτῶν ἅμα c[ώμ]ατι φέγγοc, ἀλ-
λὰ Μοῦcά νιν τρ[έφει.] Ἱέρων, cὺ δ' ὄλβου

——

κάλλιcτ' ἐπεδ[είξ]ao θνατοῖc — ep. 7
ἄνθεα. πράξα[ντι] δ' εὖ
οὐ φέρει κόcμ[ον cι]ω-
πά· cὺν δ' ἀλαθ[είαι] †ϙαλῶν†
καὶ μελιγλώccου τιc ὑμνήcει χάριν
Κηΐac ἀηδόνοc.

═══

Fig. 2006a-3: *Showing a list of metrical symbols below the subheader "Symbol Athenian".*
Listed by the input key, the following characters are considered here (already encoded ones shown in parentheses):

w (U+2297)
= U+2E48 TRIPLE VERTICAL LINE
\ (U+2016)
e (U+205D)
r U+2B85 METRICAL DOVETAIL
t U+2B81 METRICAL REVERSED TRISEME
y (U+23D7)
u (23D8)
i U+2B82 METRICAL CIRCLE
g U+2BA8 METRICAL SUBSCRIPT CATALEXIS
h U+2B7F METRICAL LONGUM
j (U+23D1)
k (U+23D6)
l U+2B7F METRICAL LONGUM + (U+0308)
; U+2B7C METRICAL ANCEPS
o U+2B80 METRICAL EXTENDED LONGUM
p U+2B7D METRICAL INVERTED BREVE

This list shows that e.g. U+2E48 TRIPLE VERTICAL LINE or U+2B80 METRICAL EXTENDED LONGUM) in fact are considered by the user community as special characters, rather then as sequences of existing vertical lines or glyph variants of existing dashes.

Metrical Symbols

With shift and option keys depressed, metrical symbols can be printed as follows:

w	⊗	beginning/end of composition
=	⫼	end of strophe
\	‖	end of period
e	⋮	(frequent) caesura
r	∫	dovetailing
t	⌙	triseme representing ⏑–
y	⌐	triseme representing –⏑
u	⌴	tetraseme
i	○	one syllable of pair of which one is long
g	^	ellipsis (catalexis or syncopation)
h	–	long
j	⏑	short
k	⏑⏑	resolved long
l	⩲	contracted double short
;	×	anceps
o	—	long (extra large)
p	⏠	*brevis in longo*

ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646[1]
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html **for guidelines and details before filling this form.**
Please ensure you are using the latest Form from http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html**.**
See also http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html **for latest *Roadmaps*.**

A. Administrative

1. **Title:** *Preliminary proposal to encode Metrical Symbols in the UCS*
2. Requester's name: *Martin Schrage; Karl Pentzlin*
3. Requester type (Member body/Liaison/Individual contribution): *Expert Contribution*
4. Submission date: *2011-11-15*
5. Requester's reference (if applicable): *University of Munich, Germany (M. S.)*
6. Choose one of the following:
   This is a complete proposal: *Yes*
   (or) More information will be provided later:

B. Technical – General

1. Choose one of the following:
   a. This proposal is for a new script (set of characters): *No*
      Proposed name of script:
   b. The proposal is for addition of character(s) to an existing block: *Yes*
      Name of the existing block: *Miscellaneous Symbols and Arrows (and other blocks); see text*
2. Number of characters in proposal: *73*
3. Proposed category (select one from below - see section 2.2 of P&P document):
   A-Contemporary ____ B.1-Specialized (small collection) X B.2-Specialized (large collection) ____
   C-Major extinct ____ D-Attested extinct ____ E-Minor extinct ____
   F-Archaic Hieroglyphic or Ideographic ____ G-Obscure or questionable usage symbols ____
4. Is a repertoire including character names provided? *Yes*
   a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document? *Yes*
   b. Are the character shapes attached in a legible form suitable for review?
5. Fonts related:
   a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?
   TBD
   b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):
6. References:
   a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? *Yes*
   b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? *Yes*
7. Special encoding issues:
   Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? *No*

8. Additional Information:
Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see http://www.unicode.org/Public/UNIDATA/UCD.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

[1] Form number: N3702-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11)

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? *No*
   If YES explain
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? *Yes*
   If YES, with whom? *One of the authors (M. S.) is a member of the scientific community himself*
   If YES, available relevant documents: *See text*
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? *Yes*
   Reference: *See text*
4. The context of use for the proposed characters (type of use; common or rare) *Common scientific*
   Reference: *See text*
5. Are the proposed characters in current use by the user community? *Yes*
   If YES, where? Reference: *See text*
6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP? *Yes*
   If YES, is a rationale provided? *Yes*
   If YES, reference: *To keep them in line with related characters*
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? *Yes*
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? *No*
   If YES, is a rationale for its inclusion provided?
   If YES, reference:
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? *No*
   If YES, is a rationale for its inclusion provided?
   If YES, reference:
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? *Yes*
    If YES, is a rationale for its inclusion provided? *Yes*
    If YES, reference: *See text*
11. Does the proposal include use of combining characters and/or use of composite sequences? *Yes*
    If YES, is a rationale for such use provided? *Yes*
    If YES, reference: *See text*
    Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? *n/a*
    If YES, reference: *The proposal contains combining characters but no composite sequences*
12. Does the proposal contain characters with any special properties such as control function or similar semantics? *No*
    If YES, describe in detail (include attachment if necessary)
13. Does the proposal contain any Ideographic compatibility character(s)? *No*
    If YES, is the equivalent corresponding unified ideographic character(s) identified?
    If YES, reference: