Musica figurata 1

9. Seminar

Institut für Alte Musik Ruth Bruckner - WS 2024/25

LV completion

- Immanent examination:
- 75% attendance
- participation in the lessons
- project

if not enough attendance: dispensation examination

special agreements possible

- Units for projects:
- 5th-11th century
- Early polyphony
- Notre Dame (1160-1250)
- Ars Antiqua (1250-1320)
- Ars Nova (1320-1390)
- Trecento (14th century)
- Ars subtilior (1377-1420)

What exactly is it?

Concert programme/CD programme/lecture/etc.

Practical relevance: How will you be able to use the music later?

Example concert programme

Idea: topic/theme/era

Repertoire: what is available? Library search

Instrumentation: who am I playing with (can be fictitious)? What instruments were there in the period?

Audience: who is listening? How can it be interesting?

Work selection: list of pieces - compiled in the library from relevant sources

Information: introductory text or verbal introduction

One work presented as an example: instrumentation/development/thoughts on notation, tuning system, etc.

- **Duration:**
- 10-15 minutes
- can also be in a team
- only orally or also with playing

early instruments are also available for string players in case of playing

- discuss and refine the project together

Follow-up discussion

What was covered last week?

1320-1377

Philippe de Vitry: Ars nova 1320

New music 1324/25: Bull of Pope John XXII calling for a return to old music

Historical background

Hundred Years' War (1337-1453)

Plague (1347-1351) killed about a third of Europe's population

Avignon Papacy (1309-1377)

Politically unstable (see Roman de Fauvel)

High point of Gothic architecture

Special features:

Notation technology is being further developed - smaller note values

More secular music

Music becomes independent, no longer mainly part of the liturgy

No families of works, but mainly individual compositions

Composer names are handed down, composer gets a new status

The Mass

Ordinary is gaining in importance

Guillaume de Machaut: Messe de Notre Dame written in the 1360s for Reims

https://gallica.bnf.fr/ark:/12148/btv1b8449032x /f573.item.langDE



Motet

Double motet as standard

Isorhythm very frequent since Philippe de Vitry

Isorhythm

Colour = Repetition of a melodic section

Talea = Repetition of a rhythmic section

Secular forms of music from refrain forms of poetry (capital letters = refrain parts)

Ballade AA`B

Rondeau ABaAa'bAB

Virelai AbbaA

Until the Ars nova:

only perfect intervals were allowed, other notes only as transitional notes

Now new: imperfect consonances are allowed in the framework but only with a fixed resolution direction perfect - imperfect - perfect (PIP principle)



Resolution directions:

minor third - unison

major third - fifth

minor sixth - fifth

major sixth - octave

No imperfect consonance resolves into the fourth. This interval no longer begins to be perceived as a perfect interval and becomes a dissonance.

Stronger harmonic emphasis through cadence formation.

e.g. double leading tone cadence



In theory, you should always arrive at octaves and fifths with a leading tone, but in practice this is not always the case, otherwise it would be full of ficta.

But before long rests, always introduce musica ficta for cadences.

A correct cadence has two leading tones and a weak cadence has only one leading tone.

Clear cadences create stronger, tonal focal points and thus a clearer harmonic structure.

Ars nova Protagonists

Guillaume de Machaut

c. 1300 - 1377

travelled extensively

with Jean de Luxembourg, then canon in Reims

attached great importance to the collection of works

probably met Philippe de Vitry in Paris c. 1320

Ars nova Protagonisten

Philippe de Vitry

1291-1361

Studied at the Sorbonne

Canon with many sinecures

Appointed Bishop of Meaux in 1351

Only 12 compositions have survived

Roman de Fauvel

Roman de Fauvel 1314/1317

Flaterie (flattery) Avarice (greed) U/Vilanie (perfidy) Variété (volatility) Envie (envy) Lâcheté (cowardice)



Wichtigste Quellen

Roman de Fauvel (earliest source, c. 1317)

Machaut manuscripts (14th century)

Codex Ivrea (c. 1360)

Codex Apt (late 14th century)

Ars nova Notation

Described by Philippe de Vitry and Johannes de Muris

Minima is now used (also Semiminima occurs)

Two-temporal equal to three-temporal

Franconische Notenzeichen, rhythmische Einheit und realer Wert

• Zunächst behielt die Modalrhythmik ihre beherrschende Rolle: Brevis und Longa konnten verschiedene reale Längen haben, je nachdem was der Modus vorschrieb.

 Franco versucht in diese Situation ein System einzuführen, bei dem aus dem unmittelbaren Kontext einer Aufzeichnung klar wird, welchen genauen Wert eine Longa und Brevis annehmen soll, ohne den Modus zu konsultieren.

• Der "Naturzustand" einer Longa ist "perfekt", das heißt: 3zeitig. Von daher besteht eine Kette von Longen hintereinander aus "perfekten" Longen. Regel: Longa vor Longa ist perfekt (= 3zeitig).

 In einer regelmäßigen Abfolge von einzelnen Longen und Breven (also: L B L B L B) "imperfiziert" die Brevis die vorangehende Longa, d.h. die Longa wird 2zeitig und die 3. Zählzeit jedes "Taktes" von der Brevis übernommen. Die übergeordnete Dreizeitigkeit ("Perfektion") bleibt also erhalten.

• Wenn 2 einzelne Breven zwischen 2 Longen "gefangen" sind, dann imperfizieren sie nicht die Longen, sondern die 2. der Breven wird "augmentiert", d.h. im Wert vergrößert, und zwar auf das doppelte, also einen 2zeitigen Wert.

• Eine Maxima hat den Wert von 2 Longen.

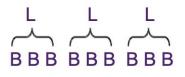
 Semibrevisketten werden standardmäßig in Zweiergruppen gelesen. Wenn Dreiergruppen gemeint sein sollen, dann soll die Dreiergruppierung visuell verdeutlicht werden (durch engeres Zusammenschreiben, durch Hilfslinien, oder punkte).

Franconische Notenzeichen, rhythmische Einheit und realer Wert



notiert:

verborgene Struktur:



notiert: verborgene Struktur:	L B L B L B 	
notiert: verborgene Struktur:	B L B L B L 	
notiert:	L B B	

		-
	1 1	
4		

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verborgene Struktur:

Wenn mehrere Noten derselben Form aufeinander folgen, so haben diese jeweils denselben Wert.

Beispiel 30 a

33333

Werden Noten verschiedener Form in gemischter Reihenfolge verwendet, so gelten folgende Gesetze:

Stehen drei Noten derselben Form nach oder vor einer Note der nächstgrößeren Form, so findet keine gegenseitige Beeinflussung der Notenwerte statt.

Beispiel 30b 3111 $\bullet \bullet \bullet$ oder $\bullet \bullet \bullet$

Imperfizierung: Steht eine kleinere Note nach (oder vor) einer der nächstgrößeren Form, so wird der größeren ein Drittel ihres Wertes abgezogen. Die Imperfektionsregel gilt auch, wenn einer größeren vier, sieben, zehn etc. Noten der nächstkleineren Form folgen. Jeweils die erste kleinere imperfiziert die vorhergehende größere Note.

Beispiel 30 c	3

Alterierung: Stehen zwei kleinere Noten derselben Form vor einer der nächstgrößeren Form, so wird die zweite in ihrem Wert verdoppelt. Dies hat zur Folge, daß die zwei Noten gleicher Form zusammen eine dreizeitige Einheit bilden. Die Alterationsregel gilt auch, wenn einer größeren fünf, acht, elf etc. Noten der nächstkleineren Form vorausgehen. Jeweils die letzte kleinere wird in ihrem Wert verdoppelt.

Beispiel 30d

3 1 2 3 1 1 1 1 2 3

Diese vorgegebenen Regeln der Imperfektion und Alteration können durch Divisionspunkte außer Kraft gesetzt werden: sie trennen dreizeitige Einheiten voneinander ab. Man setzt sie dann, wenn man andere rhythmische Einteilungen herbeiführen will, als aufgrund der Imperfektions- und Alterationsregel entstehen würden.

 3 1
 (Imperfizierung wird außer Kraft gesetzt)

 2 1 1 2
 (Alterierung wird außer Kraft gesetzt)

 2 1 1 2 3
 (Imperfizierung wird außer Kraft gesetzt)

 2 1 1 2 3
 (Imperfizierung und Alterierung treten in Kraft, wo sie normalerweise nicht vorkommen)

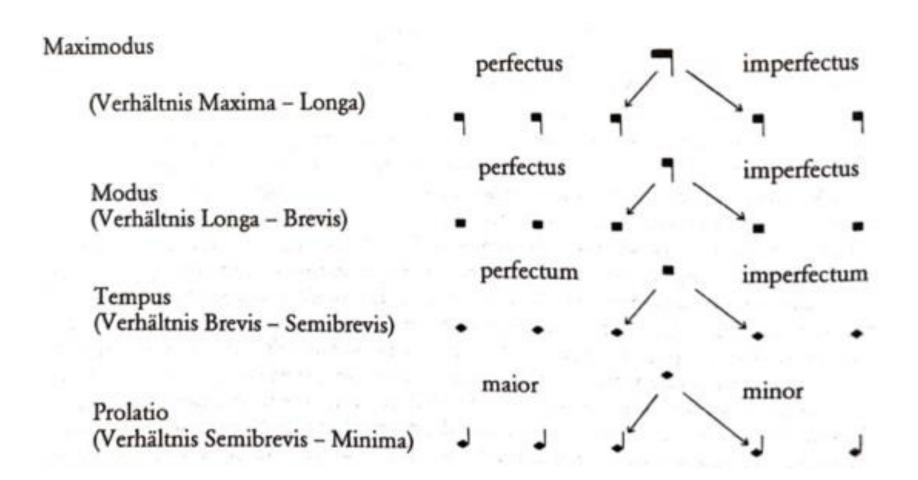
Beispiel 30e

Ars nova Notation

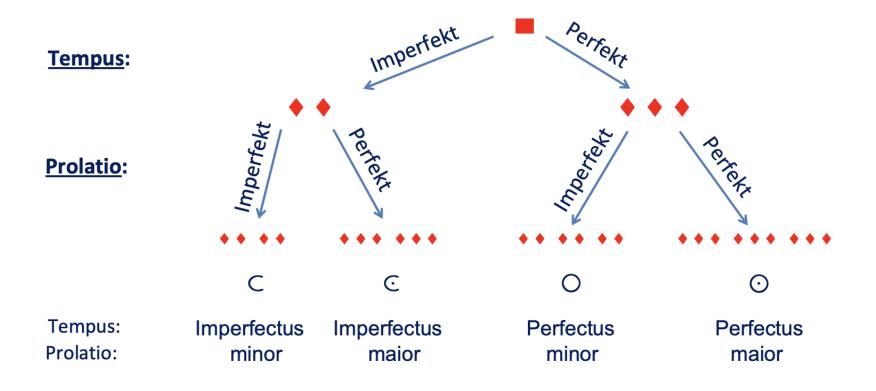
Ligatures are written in Franconian Notation

Colouring: Indicates imperfect in perfect mode and vice versa

Ars nova Notation



Französische Ars Nova

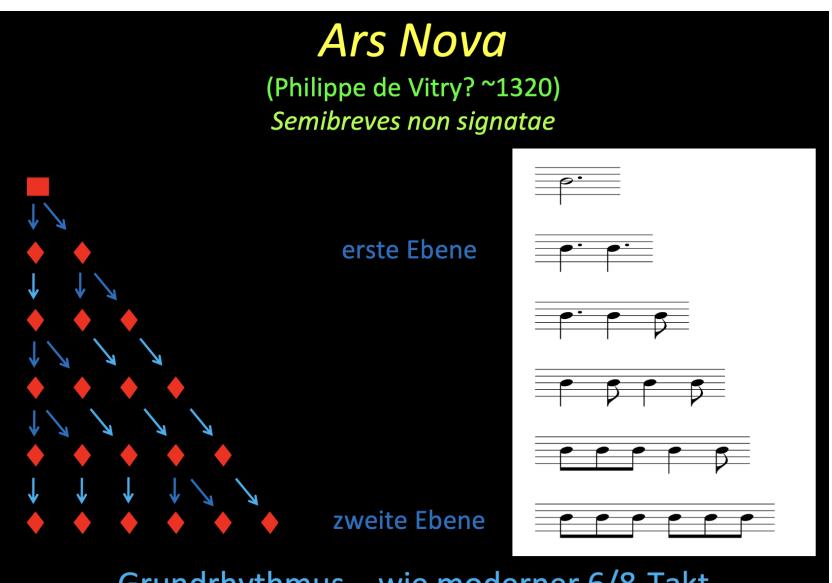


Ars nova Notation

Reading of semibreves:

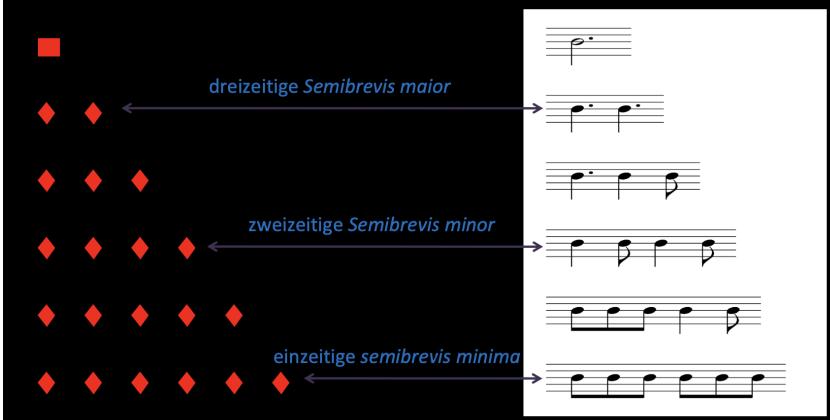
Semibreves non signatae

Semibreves signatae



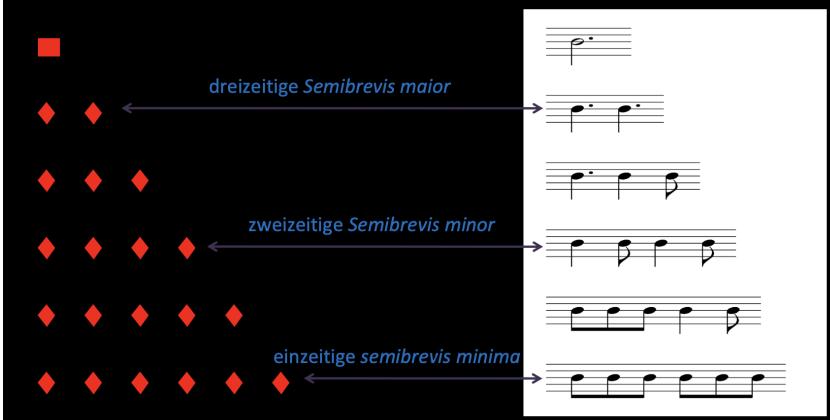
Grundrhythmus – wie moderner 6/8-Takt

Ars Nova (Philippe de Vitry? ~1320) Semibreves non signatae



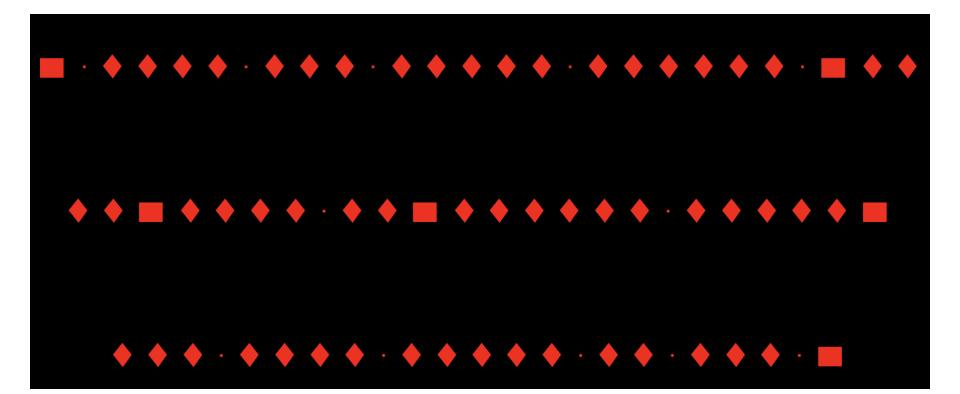
Wie bei der Ars Antiqua-Notation kann ein Zeichen für verschiedene reale Werte stehen - es kommt immer noch auf den <u>Kontext</u> an.

Ars Nova (Philippe de Vitry? ~1320) Semibreves non signatae



Wie bei der Ars Antiqua-Notation kann ein Zeichen für verschiedene reale Werte stehen - es kommt immer noch auf den <u>Kontext</u> an.

Ars nova Notation



Ars Nova

(Philippe de Vitry? ~1320) Semibreves signatae (= Semibreven <u>mit</u> Extrazeichen, Abweichung von der Norm)

Strich nach unten zeigt Verlängerung des Notenwerts an

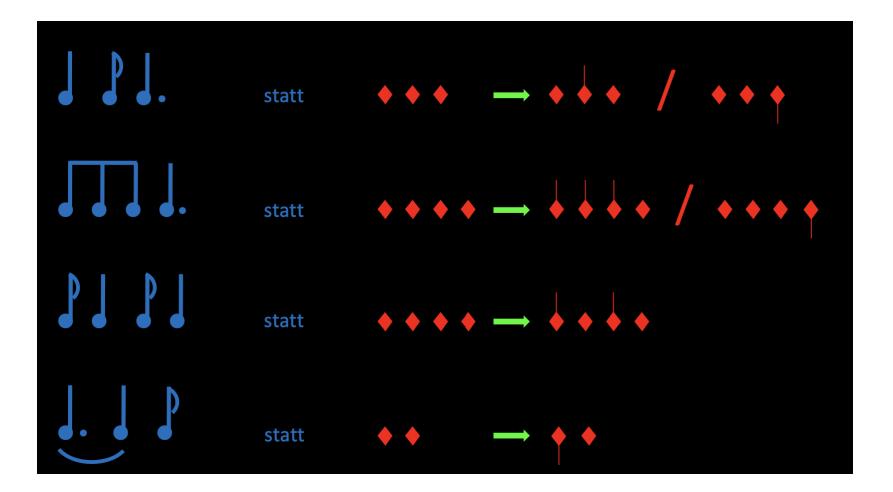
Semibrevis maior

Das Grundzeichen kann für alle drei Möglichkeiten stehen (Semibrevis maior, Semibrevis minor, Semibrevis minima)

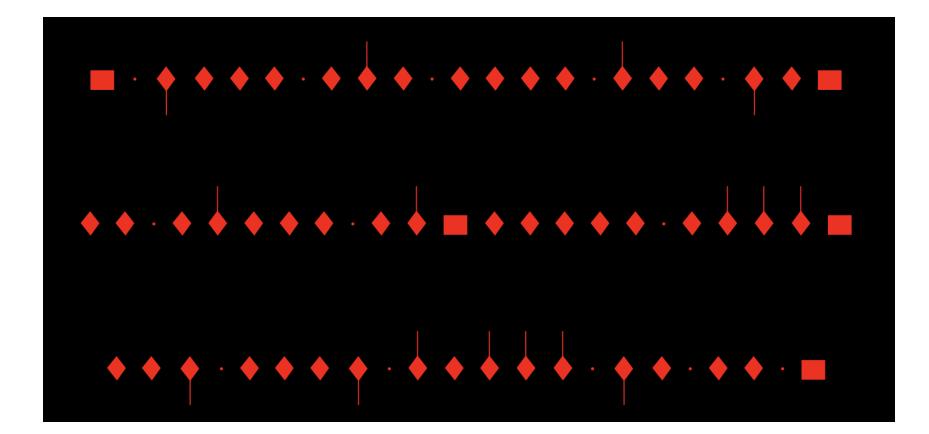
Strich nach oben zeigt Verkürzung des Notenwerts an

nur<u>Semibrevis</u> <u>minima</u>

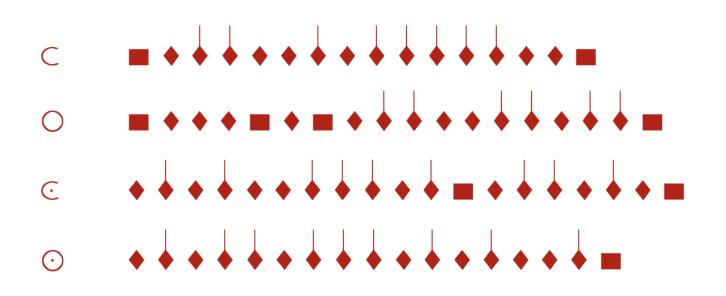
Ars nova Notation



Ars nova Notation



Ars nova Notation



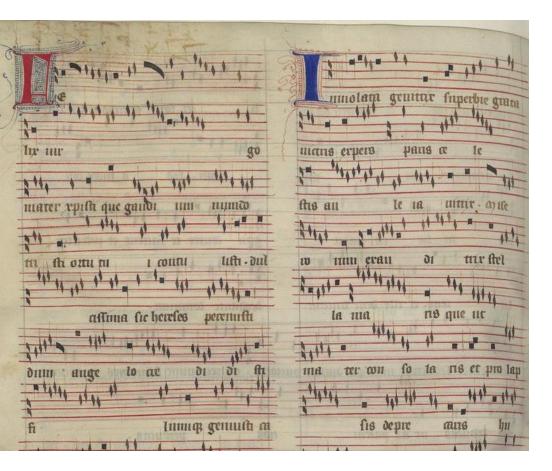
Ars nova



Sound sample: Roman de Fauvel Providence la senee



Ausgewählte Stationen



Sound sample: Guillaume de Machaut Inviolata Genitrix



Modal notation described by Johannes de Garlandia and Anonymous IV

Construct of a small circle of scholars in Paris

Agreement on certain signs to represent a rhythm. Not everything could be represented rhythmically, only a handful of rhythms

Values: 3 = perfect, 2 = imperfect

values (still without a sign):

Brevis (short)

Longa (long) two breves (imperfect)

Longior Longa (longer) three breves (perfect)

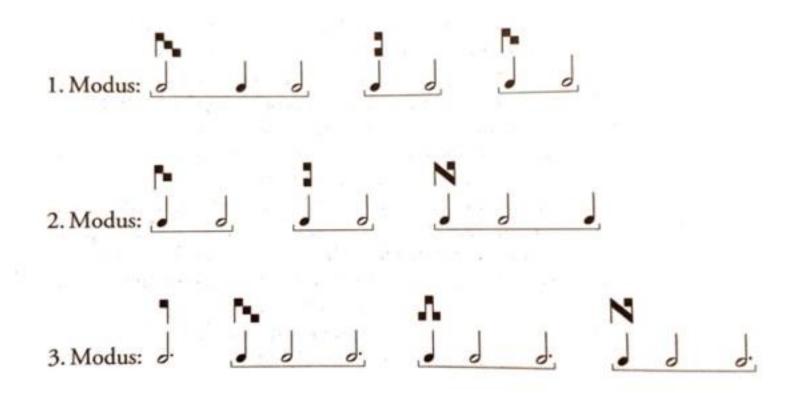
Duplex Longa/Maxima (the longest) two longes (imperfect)

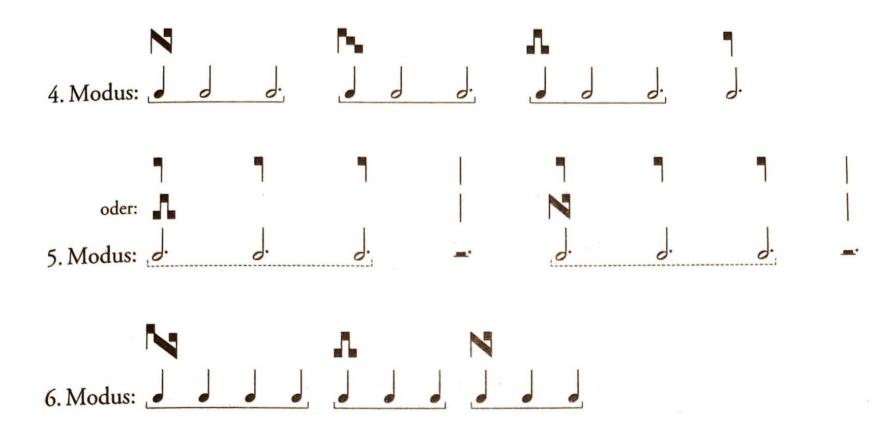
Signs:

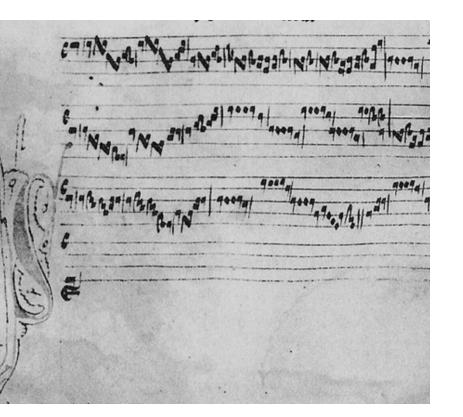
Simplex: single note Plica: main note + ornament Binaria: group of two Binaria plica: group of two + ornament Ternaria: group of three and so on (Quarternaria, Quinternaria, Sexternaria, Septernaria...) Currentes: the 'running notes'

There was a problem: repeated notes could not be written as a ligature. Solutions come from the context.

Modus	Rhythm	Grouping of ligatures
1	LBLBLBLB	32222
2	BLBLBLBL	22223
3	LI B L LI B L	1333
4	BLLIBLLI	333331
5		111111
6	BBBBBB	333333



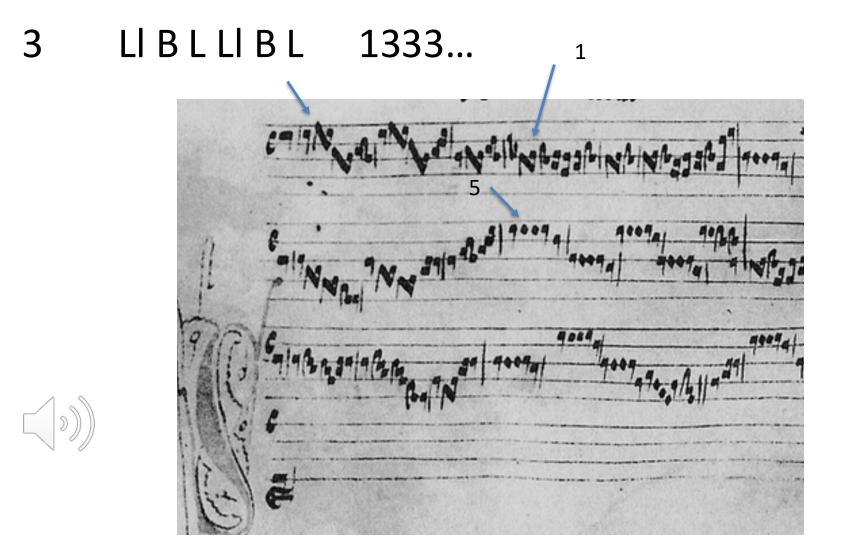


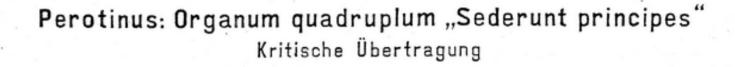


Sound sample:

Perotinus Magnus (ca. 1200) Sederunt principes











Notre Dame School

Clausula

- for some organum parts, passages were selected from Gregorian chant and set in two voices; zoom-in on a passage of chant, arranged rhythmically and in several voices.
- first a passage of chant is given rhythm and then a voice is added to it;
 this concerns a melisma or a syllable from the chant;
- becomes a field of experimentation for the Notre Dame period
- space for the motet to develop

Notre Dame School

Motet

- The first motets appear in the Notre Dame repertoire (traces of them can be found in the Aquitanian repertoire: Stirps iesse)
- The motet is created by adding a text to the rhythmic and melismatic upper voice (vox organalis) of a clausula
- has two texts: a chorale text in the lower voice and a new text in the upper voice
- Modal notation can only be represented by ligatures, however, which is why there are rhythmic problems with the text of the melodies.

Notre Dame Schule

Conductus

- = a song that accompanies a liturgical action
- newly composed Latin-language poetry (1-4 voices), usually with serious text
- began during the Aquitanian period around 1100 and flourished from the mid-12th century
- replaced by the motet in the second half of the 13th century
- usually written note against note
- not yet notated rhythmically
- (Andersen's edition indicates rhythms in part, but they are questionable)

1250 - 1320

The term Ars Antiqua was coined by Philippe de Vitry to distinguish it from the Ars nova (1320 treatise: 'Ars nov').

What changes?

Rhythmic subtleties require new notation: mensural notation

Franco of Cologne: Ars cantus mensurabilis

Notation is no longer in score form, but on individual sheets, because music no longer needs to be visually coordinated.

Composers: Petrus de Cruce (Pierre de la Croix) Jehan de Lescuriel Adam de la Halle

Theoreticians: Johannes de Grocheio Anonymous IV Jacobus von Lüttich Franko von Köln

Johannes de Garlandia

active c. 1270-1320, was a lecturer at the University of Paris

Treatises:

1) De plana musica (= chorale)

contains the basics of music theory; division into musica mundana, humana, instrumentalis; explanation of keys, scales, Guidonian hand, Pythagoras,

2) De mensurabilis musica

the first treatise to deal consistently with rhythmic music; describes modes and rhythms of the Notre Dame era (increasingly polyphonic, monophonic music is not notated rhythmically); all later developments are based on this foundation, including our own notation

describes the various genres and compositional techniques of early Ars Antiqua

Petrus de Cruce

active around 1290; composer and theorist, one of the most important musicians of the late 13th century. He was highly praised by Jacobus de Liege and Guy de Saint Denis.

Some compositions are included in the Codex Montpellier and others, but are attributed to him later, not certain.

Franco of Cologne

Franconian mensural notation, because he describes it

- 8 manuscripts preserved
- Treatise: Ars cantus mensurabilis

Innovation: note values are represented by single signs

Hieronymus de Moravia

Theorist, died after 1271, apparently active in Paris

Very detailed treatise, a lot of mathematics at the beginning, only towards the end about practical music; monophony and polyphony

He gives 3 typical fiddle tunings and a rebec tuning and describes the ornamentation practices of the singers of his time

However, ornaments mainly revolve around Gregorian chant

Flos harmonicus: rapid vibrato from the main note upwards

Flores longi: semitone vibrato upwards, very slow, only on the last and penultimate syllable

Flores aperti: whole-tone vibrato

- Jacobus de Liège
- c.1260 after 1330

Speculum musicae, the most comprehensive treatise on music theory,

polemicises against Ars Nova

Johannes de Grocheio

active in Paris around 1300

gives practical information in his treatise De musica, paints a picture of musical life in Paris at the time, also describes secular music genres: Estampie, Chanson de geste (heroic epics), Trouvères; mentions song genres, but also instrumental music

Writes: People become better through engagement with music; Albert Magnus writes before him: 'Singing, playing the fiddle, and reciting epics are activities that a man who bears responsibility for a society should occupy himself with'

Grocheio provides a lot of information on the practice of medieval music (including instrumental music)

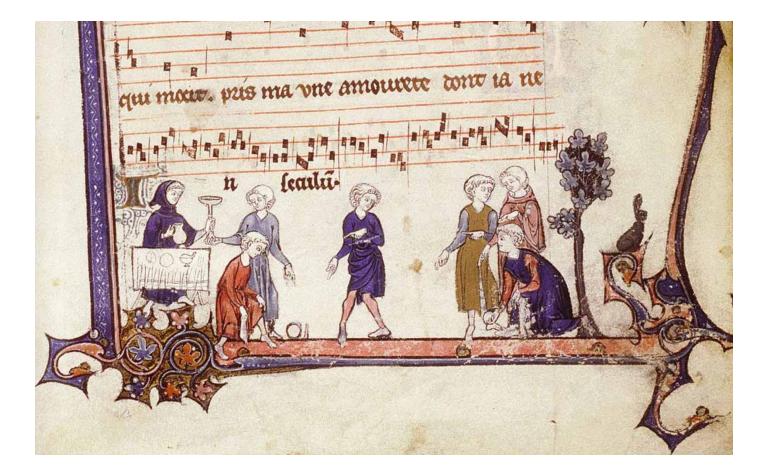
Montpellier Codex

https://arca.irht.cnrs.fr/ark:/63955/md752f75rt7v

Transcriptions:

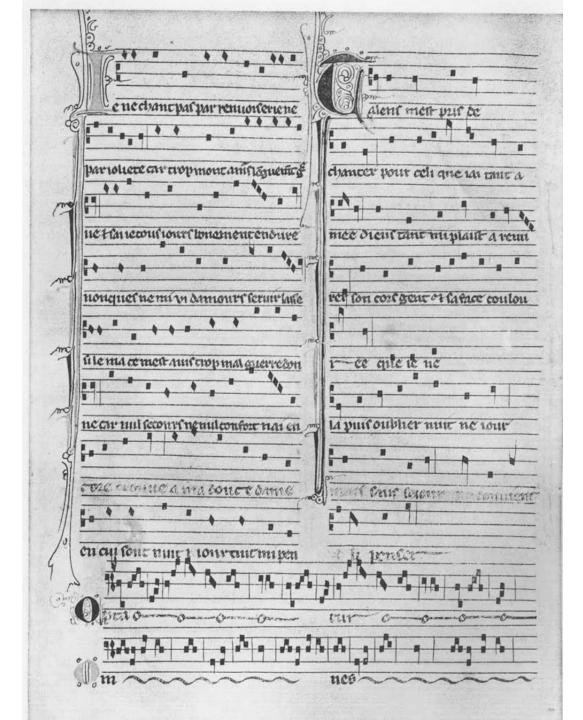
- Fascicles 1 und 2: <u>https://books.google.de/books?id=n5o3tNj4ymgC</u>
- Fascicles 3,4,5: <u>https://books.google.de/books?id=xvtiqUUy2gwC</u>
- Fascicles 6,7,8 <u>https://books.google.de/books?id=pxTDi_tZHEgC</u>
- Text und Translation: https://books.google.de/books?id=efhyxmllv1UC





Bamberg Codex

http://digital.bibbvb.de/view/bvb_mets/viewer.0.6.5.jsp?folder_id=0&dvs=17315 30640141~818&pid=5399204&locale=de&usePid1=true&usePid 2=true



Codex Las Huelgas

Codex Turin Biblioteca Reale, Vari 421 [Tu]

Motet: the most important genre between 1250 and 1400 - an art form for the educated classes, separate from the liturgy

Created by setting new words to the upper voices

Duplum = voice above the tenor is then called motetus, from mot = French word

Third and fourth voices are called triplum and quadruplum

Tenor has few long notes; only a word or a phrase

can also be performed instrumentally

The cantus firmus is usually taken from the Magnus liber organi, but later other liturgical melodies are also used, as well as secular melodies or newly invented ones.

Texting:

upper voices often not only have different text but also a different language and completely different content.

Initially, the upper voices comment on the text of the tenor, but later they do not.

high degree of intertextuality

pieces in different sources with different texts: you just take a line and use it for a new piece, or you just take text, or just melody

there is a lot of tinkering, there are whole families of pieces (there are studies on motet families/family trees, e.g. researched by Friedrich Ludwig)

Notation

Text setting requires a different notation, as no ligatures are used when there is text. Ligatures are only used for multiple notes per syllable

Single notes should be given a specific value

Franco von Köln system is catching on

Notation

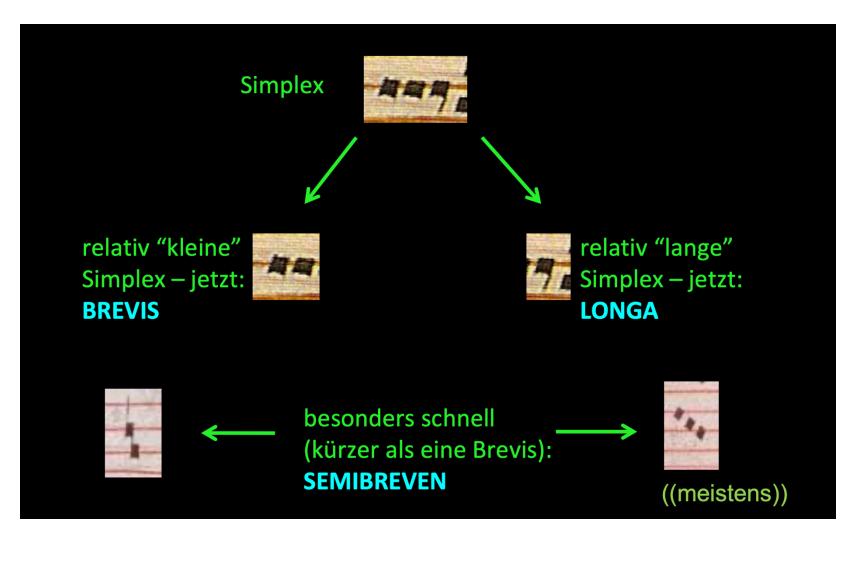
Three-part time remains the standard

However, the exact length of a note can still only be determined from the context. This is where the difference arises as to whether a note should be two or three beats long.

New idea:

an additional symbol above the note is a shortening.

An additional symbol below the note is an extension.



Long and Brevis can be of different lengths, depending on where they are placed: imperfection and alteration

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Longior longa = 3 times
Longa recta = 2 times
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Brevis (normal) = 1 time Brevis altera = 2 times

Garlandia Notation

Based on modal notation

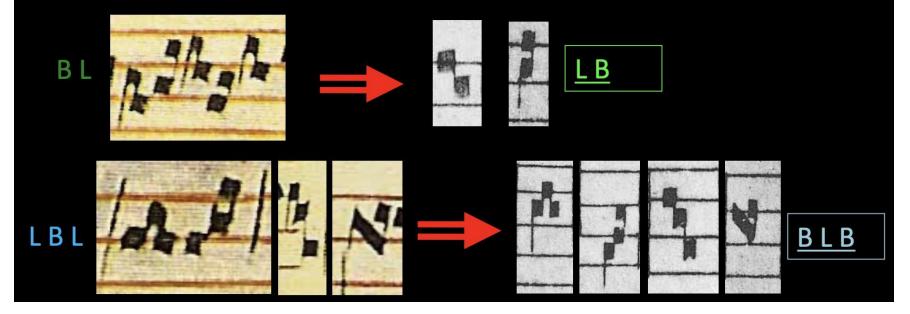
Standard ligature forms are read like the first mode: L B

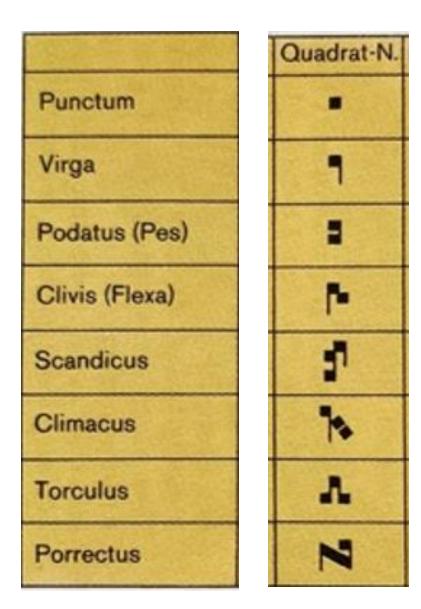


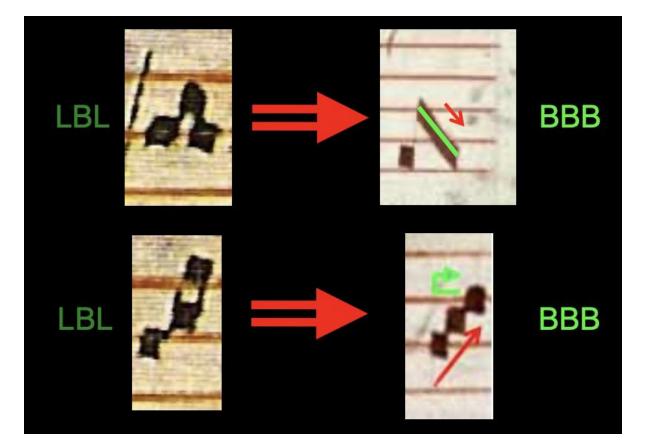


- Standardisierte Ligaturgrundformen werden immer wie im normalen ersten Modus interpretiert.
- Eine Abweichung von der Standardform (durch die Hinzufügung oder Wegnahme eines Strichs) kehrt den Rhythmus der gesamten Ligatur um.

(Daraus ergibt sich, daß es bei Garlandia praktisch keine Ligaturen mehr gibt, die länger als eine Ternaria sind – nur Binaria und Ternaria sind eindeutig definiert.)







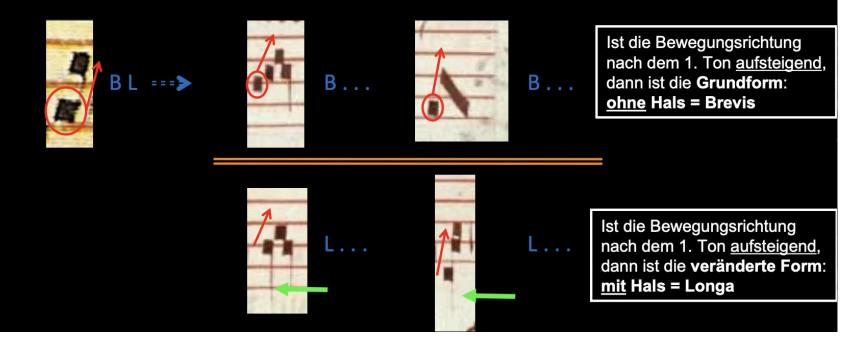
Frankonian mensural notation,

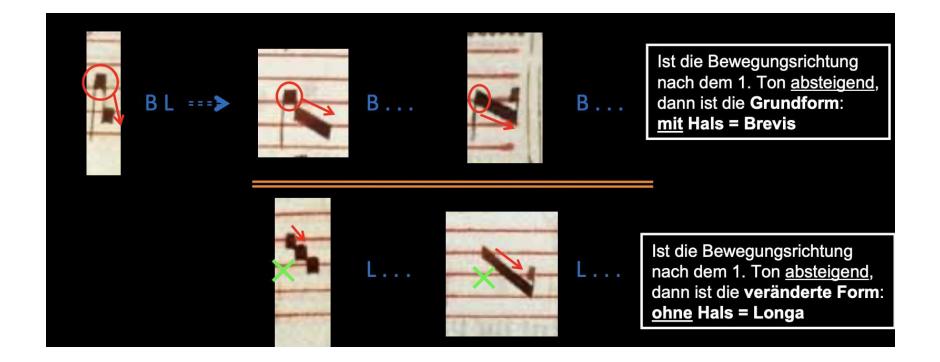
like Garlandia, starts from the first mode and defines deviations from the normal ligature form

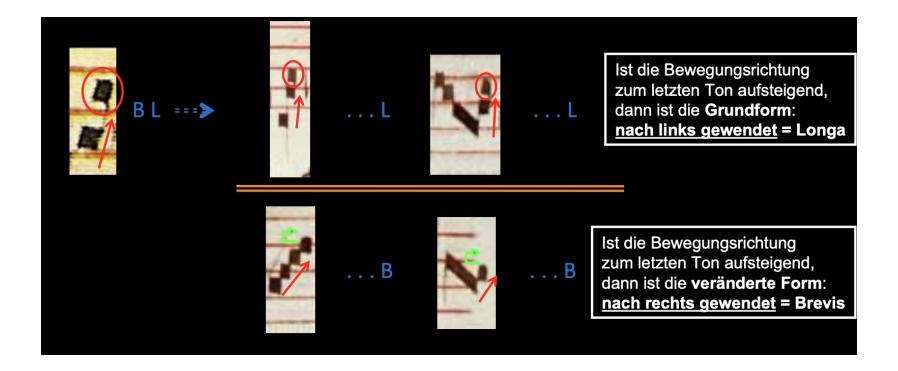
Franco von Köln

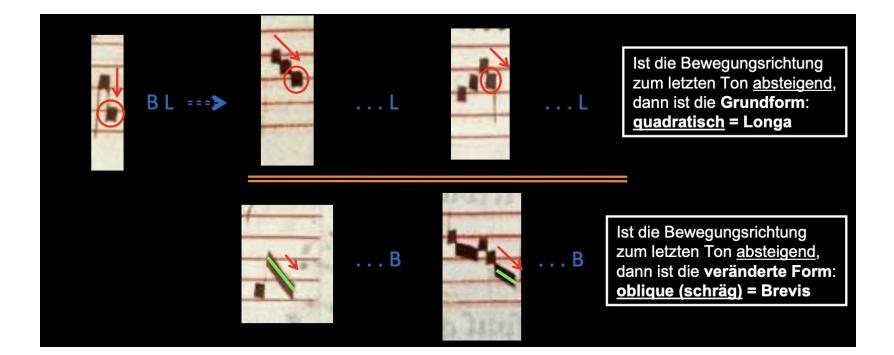
• Standardisierte Ligaturgrundformen werden immer wie im normalen, ersten Modus interpretiert.

 Der erste Ton jeder Ligatur ist rhythmisch definiert über die Bewegungsrichtung (aufsteigende oder absteigende melodische Richtung) und über den Anstrich: mit Hals oder ohne Hals. Die Deutung dieser Formen geht immer als Abweichung von der Ligaturgrundform aus.

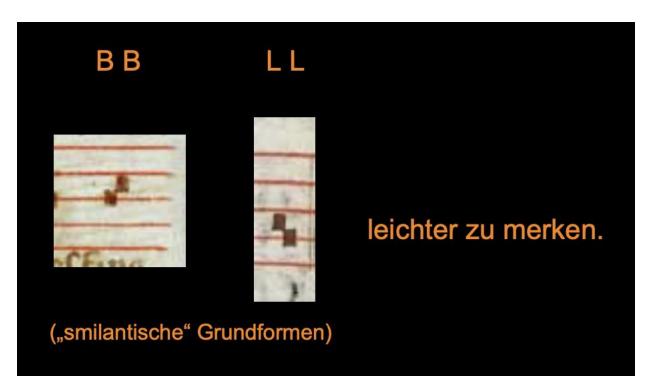






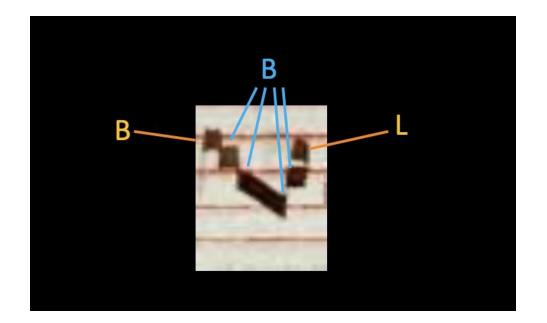


Uri von Smila



Franko of Cologne:

all notes in the middle are breves



Franko of Cologne:

A stroke at the beginning of the ligature upwards makes the first two semibreves

Ausnahmen:

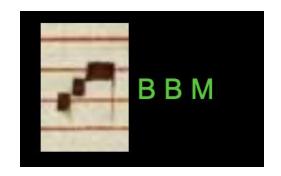
• Ein Strich nach oben am Anfang einer Ligatur beeinflußt den Rhythmus der ersten beiden Töne dieser Ligatur: sie werden zu <u>Semibreven</u> (c.o.p. – siehe S. 2-3).



SSBBBBB

Franko from Cologne:

Maximae are very broad notes



Franko von Köln:

Breaks



Semibrevispause (Strich ist kleiner als ein Zwischenraum)

Strich geht durch einen Zwischenraum)

Longapause (3zeitig)

(Strich geht durch 3 Zwischenräume)

Die 2zeitige Longapause geht durch 2 Zwischenräume (in diesem Beispiel nicht zu sehen)

Franko of Cologne

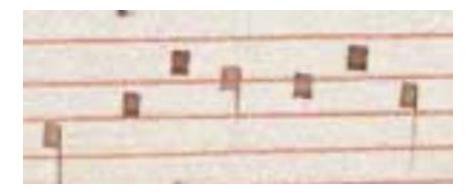
A series of Simplex:

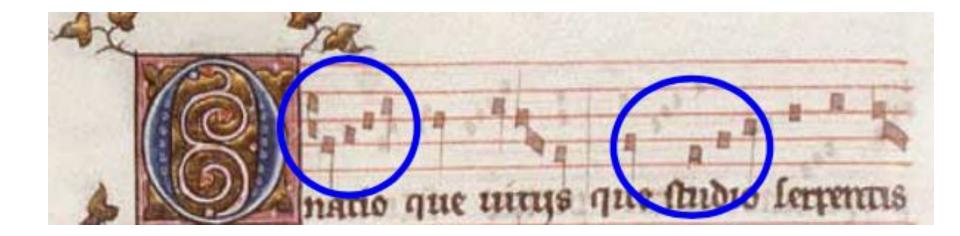
Longa before Longa is perfect (3 times)

In a sequence Longa-Brevis, the Brevis imperfects the Longa and a Longa recta results

If there are two Breves between Longas, the second Brevis is altered







Maximae are two perfect longas

semibrevis chains are read as groups of two by default

Maxima (Duplex Longa), = Longa, Brevis, = Semibrevis, = Minima.

Editions

The Montpellier Codex, hrsg. von Hans Tischler, 4 Bände, Madison (Wis.): A-R Editions, 1978-1985.

=> Neuere Edition, in der alle Kompositionen des sogenannten "Codex Montpellier" in Noten und Texten übertragen und übersetzt sind. Die Edition ist nach der Reihenfolge der originalen Handschrift sortiert und die einzelnen Teile sind wie folgt aufgebaut:

part 1 : Critical commentary

- part 2 : Fasc. 3, 4, and 5
- part 3 : Fasc. 6, 7, and 8
- part 4 : Texts and translations

Polyphonies du 13e siècle: le manuscrit H 196 de la Faculté de Médecine de Montpellier, hrsg. von Yvonne Rokseth, Paris: Ed. de l'oiseau lyre, Dyer, 1935-1939.

=> Die alte Standard-Edition zum "Codex Montpellier" mit guten Angaben zu jedem Stück (auch mit Angabe paralleler Quellen). Die einzelnen Bände sind wie folgt aufgeteilt:

- T. 1 : Reproduction photoypique du manuscrit
- T. 2 : Transcription intégrale du manuscrit, (fasc. 1-5)
- T. 3 : Transcription intégrale du manuscrit, (fasc. 6-8)
- T. 4 : Etude et commentaires

Editions

Compositions of the Bamberg Manuscript - Bamberg, Staatsbibliothek, Lit. 115 (olim Ed. IV.6.), hrsg. von Gordon A. Anderson, Translation of French Texts by Robyn E. Smith (= Corpus Mensurabilis Musicae [CMM] 75), 1977.

=> DIE neue Standard-Edition des "Bamberg-Codex" mit Übersetzung aller Motettentexte ins Englische.

Cent motets du XIIIe siècle publiés d'après le manuscript ed. IV.6 de Bamberg, hrsg. von Pierre Aubry, 3 Bände, Paris 1908.

=> Die erste Edition des "Codex Bamberg" - sehr ausführlich in 3 Bänden ediert unter Verwendung der historischen Schlüssel (viele C-Schlüssel), aber mittlerweile veraltet. Die einzelnen Bände sind wie folgt betitelt:

- Vol. 1 : Reproduction phototypique du manuscrit original
- Vol. 2 : Etudes et commentaires
- Vol. 3 : Transcription en notation moderne et mise en partition

Editions

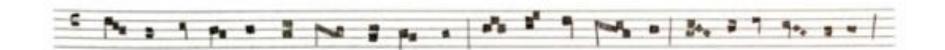
El Codex musical de Las Huelgas (Musica a veus dels segles XIII-XIV), hrsg. von Higinio Anglés, 3 Bände [1: Introduccio; 2: Facsimil; 3: Transcripcio] New York: AMS PRESS, 1977 (= Biblioteca de Catalunya; 6).

=> Die klassische Edition (mit Faksimile) zum sogenannten "Codex Las Huelgas".

Der Musiktraktat des Johannes de Grocheo, nach den Quellen neu hrsg. mit Übersetzung ins Deutsche und Revisionsbericht von Dr. Ernst Rohloff (= Media Latinitas Musica II), Leipzig 1943.

=> Eine Edition des für uns besonders wichtigen Musiktraktats "De Musica" des Theoretikers Johannes de Grocheio. Die Edition enthält den lateinischen Originaltext und eine (etwas antiquierte) deutsche Übersetzung. Aus dieser Edition stammten die Lesungen, die am Theorietag von Block V vorgetragen wurden (v.a. seine einleitende Philosophie [nicht einfach die historischen Autoritäten zu übernehmen, sondern zu prüfen, was jeder genau sagt und nur das anzunehmen, was sinnvoll erscheint, sowie sein Wunsch die Musik der Stadt Paris für seine Schüler zu beschreiben und jede Gattung auf ihren Wert für die Gesellschaft zu überprüfen], seine Aussagen über die musikalischen Gattungen [z.B. "cantus coronatus" = Minnesang, Instrumentalmusik etc.], über die Instrumente [höchstes Lob der Fidel] und über die Mehrstimmigekeit [v.a. die Motette]).

Exercises





Exercises













Music example

Plus bele que flor - Quant revient - L'autrier - Flos

4-part motet from the Codex Montpellier





Modus und Solmisation

Modes

Dorian

Phyrgian

Lydian

Mixolydian

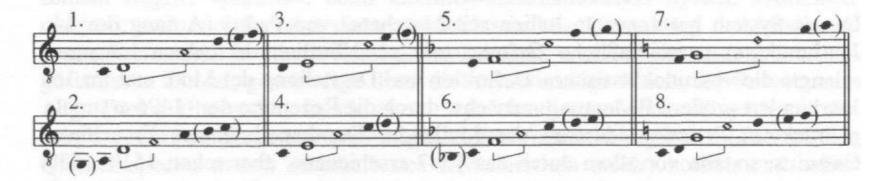
authentic or plagal

which notes are important is what counts, not ambitus

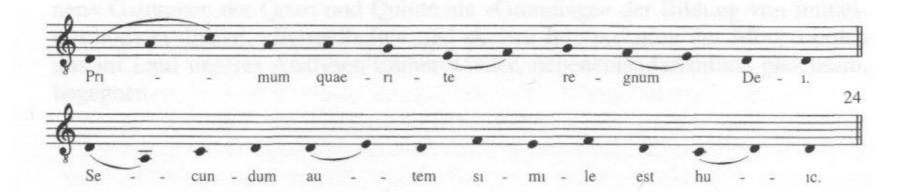
mode as colour, can change during the piece (colour fields), Musica enchiriadis (9th century) already mentions Dorian-Phrygian-Lydian-Mixolydian

Modus	Altere Benennung	Jüngere Benennung	Skalen- ausschnitt	Finalis	Tenor
I	Protus authentus	dorisch	d-d	d	a
ĪI	Protus plagalis	hypodorisch	a—a	d	f
III	Deuterus authentus	phrygisch	e-e	e	(h)c
IV	Deuterus plagalis	hypophrygisch	h—h	e	(g)a
v	Tritus authentus	lydisch	f-f	f	C
VI	Tritus plagalis	hypolydisch	c—c	f	a
VII	Tetrardus authentus	mixolydisch	g-g	g	d
VIII	Tetrardus plagalis	hypomixolydisch	d_d	g	(h)c
	1. Ton (Protus)		*		
	Dorisch	~ 0	0 00 0		=
	9	0 00 0			
	2. Ton _0	*			10
	Hypodorisch	5 00 0 00 0	0		
	3. Ton (Deuterus)		*		
	Phrygisch	0 0 Ø	<u>. 0 0 0</u>	u	
	4. Ton		*		
	Hypophrygisch	0 0 0 e	0 0		
	3	TO			
	5. Ton (Tritus)	υ^φ υ	*		
		υ ο υ ο	*	n9	
	5. Ton (Tritus) Lydisch	υο Ο <u>π</u> ο	*	<u>n¢</u>	
	5. Ton (Tritus) Lydisch	00 00	* *	<u>n¢</u>	
	5. Ton (Tritus) Lydisch 6. Ton Hypolydisch 7. Ton (Tetrardus)	ve v <u>v</u> e	* * * * * *	п о о	
	5. Ton (Tritus) Lydisch 6. Ton Hypolydisch	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	* * 0 0 0 0 * 0 0 0 0 * 0 0 0 0	п <u>е</u> о	
	5. Ton (Tritus) Lydisch 6. Ton Hypolydisch 7. Ton (Tetrardus) Mixolydisch 8. Ton	00 0 00 00 00 00 0	* 	- ne - 0	
	5. Ton (Tritus) Lydisch 6. Ton Hypolydisch 7. Ton (Tetrardus) Mixolydisch	00 0 <u>00</u> 0	* 	и¢ - по-Ф	

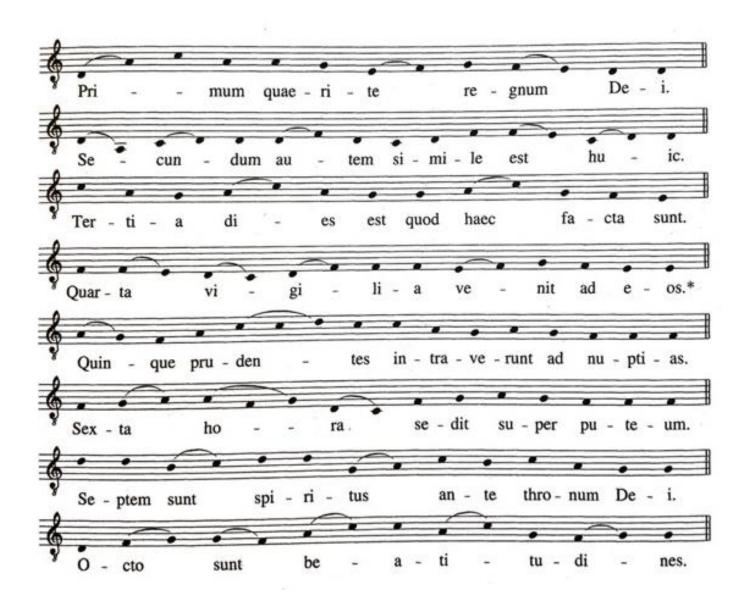
(Finalis = Ganze Note, Repercussa = rhombische Note, dazu der Ambitus, die »Lizenzen«, d. h. mögliche Erweiterungen, in Klammern):

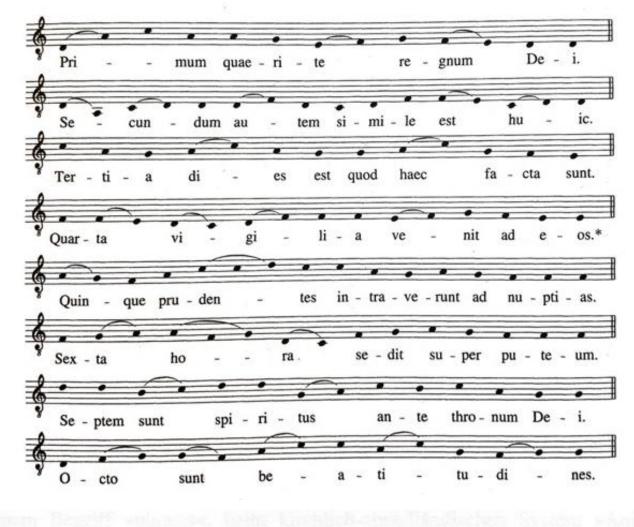


Als Beispiele für die »gerüstbildende« Funktion der Repercussionen vorgeführt seien überdies die mittelalterlichen Memorierformeln des 1. und des 2. Modus²⁴:

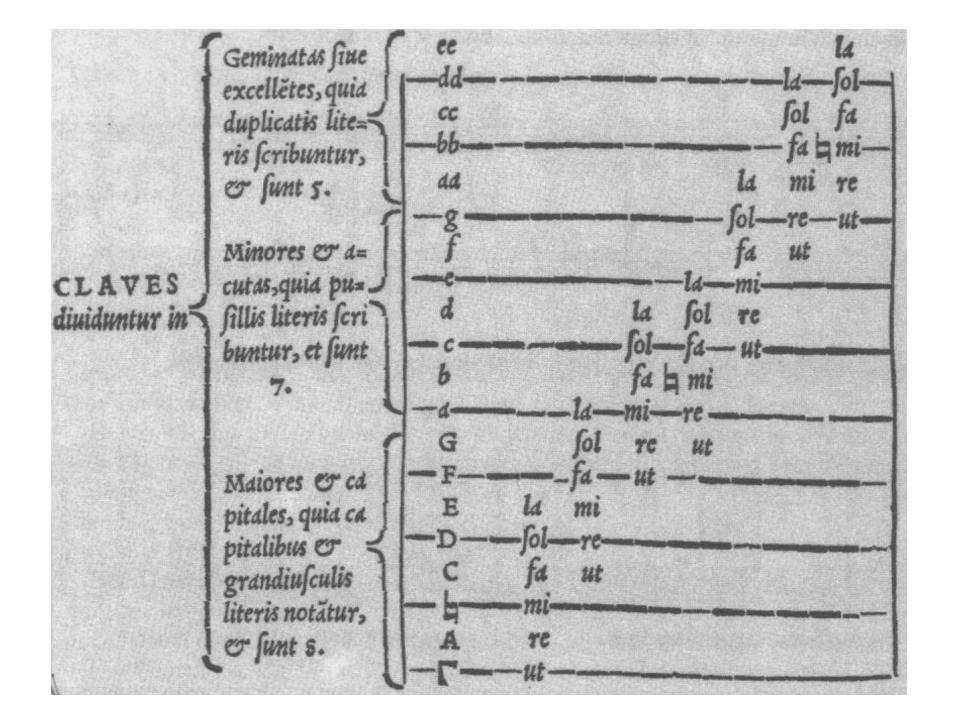


VI. Memorierformeln der acht Modi (nach Johannes Affligemensis, De musica cum tonario, Kap. 11)









Hexachord

- Origin of the name: hex = six and chordè = strings: six strings
- Structure: 2 whole tones, half tone, 2 whole tones
- Lowest note in the system: gammut
- Notes are labelled with tone letters (clavis, littera) and syllables (voces, syllabae).
- Tone letters indicate the pitch of the tone, while syllables indicate its quality (order within the hexachord)
- first described by Guido of Arezzo, but not invented by him

Hexachord

Division into pitch ranges:

note graves from Γ to G (today G to g)

note acute from a to g (today a to g')

note superacute from aa to bia to ee (today a' to e")

Hexachords occur on the following pitches:

c (naturale)

f (molle) with b quadratum

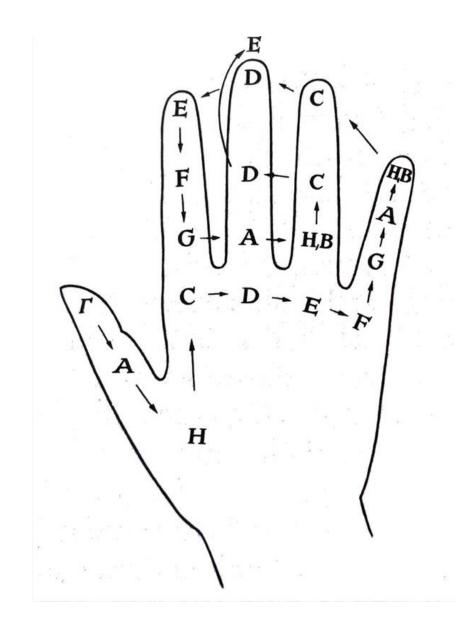
g (durum) with rotundum

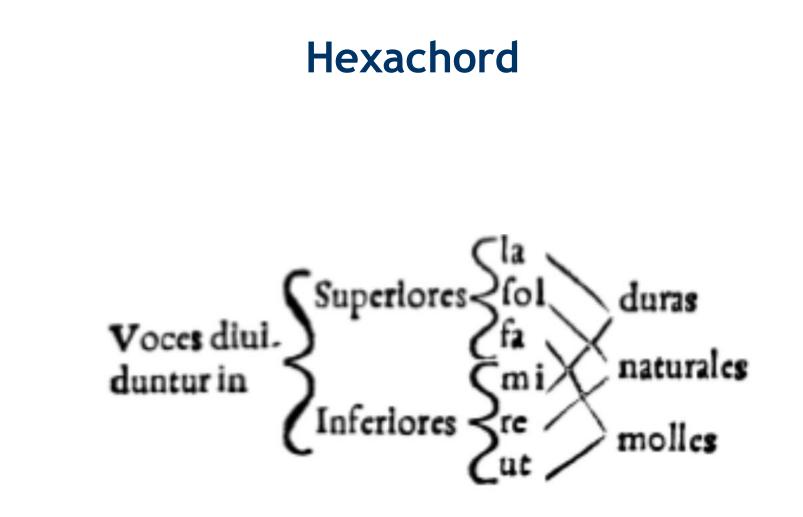
= musica recta

Deviations from the notes occurring in it lead to musica ficta

'fa sopra la' only occurs in 16th century music, but in earlier music when descending rather b and when ascending then h

	Die Hexachorde									
	1	2	3	4	5	6	7			
e" d" c"'b' h'/b' a' g'f'e'd' c'/b a gf e d' c'-b- a gf e d' c'-b- a gf e d' c'-b- a gf e d' c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- c'-b- cbb- cbb- cb- cb- cbb- cbbb- cbb- cbbb- c	la sol fa mi re ut	la sol fa mi re ut	la sol B fa mi re ut	la sol fa H mi re ut	la sol fa mi re ut	la sol B fa mi re ut	la sol fa H mi re ut	e" la d" la sol c" sol fa b' fa h' mi a' la mi re g' sol re ut f' fa ut e' la mi d' la sol re c' sol fa ut b fa h mi a la mi re g sol re ut f fa ut e la mi d sol re c fa ut H mi A re Γ ut		





Hexachord

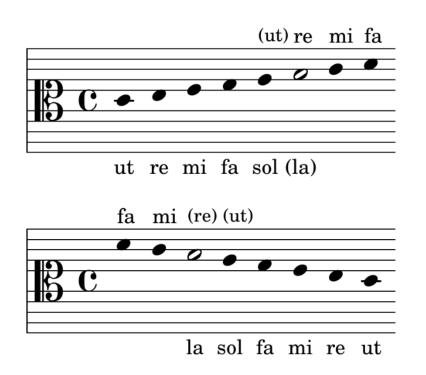
• duras (hard): mi, la

• naturales (natural): re, sol

• molles (soft): ut, fa



ut re mi fa sol la ut re mi fa sol la



The ideal place to make the mutation is between

naturale - durum

naturale - molle

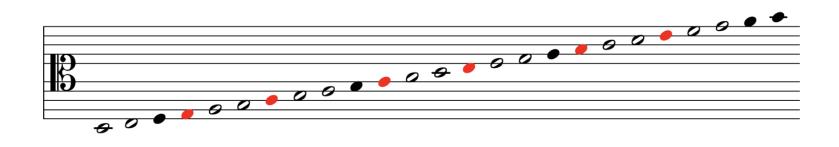
rather than between durum - molle

(chromatic modulation)

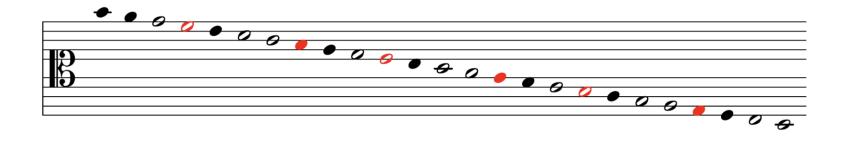
upwards to the re of the next hexachord, rather not already at ut

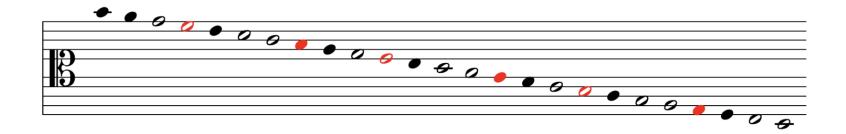
downwards as fast as possible, also on the la

Glarean 1516: syllables hard with hard and soft with soft are best for mutation

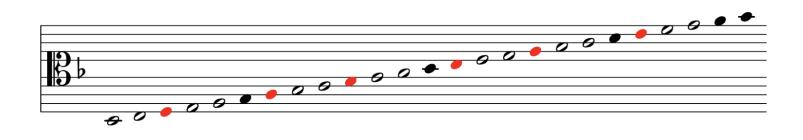


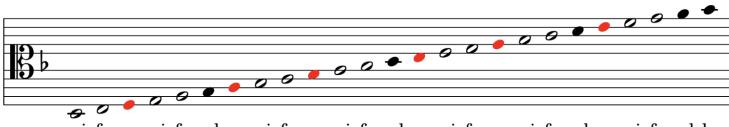




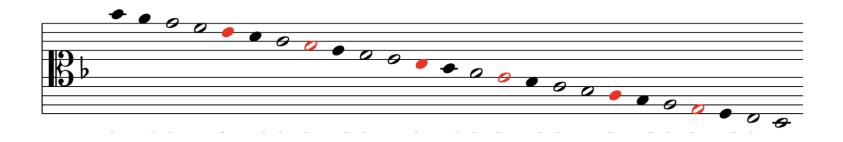








mi fa re mi fa sol re mi fa re mi fa sol re mi fa sol re mi fa sol la





• For jumps: if possible, mutation with the same syllables re – re, or sol – sol etc.

Musical notation

ornamental neumes

e.g. plica, quilisma

performance indications

Letter from Notker to Lantpert explaining the signs:

higher: o/l/s (l comes from levare, to raise)

same: e/simul

lower: i/a (i usually without dot) comes from iusum; use: lower than you think

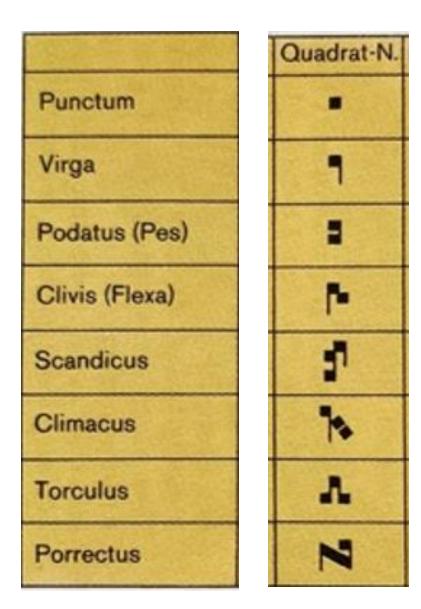
fast: c (celeriter)

slow: t (tenere)

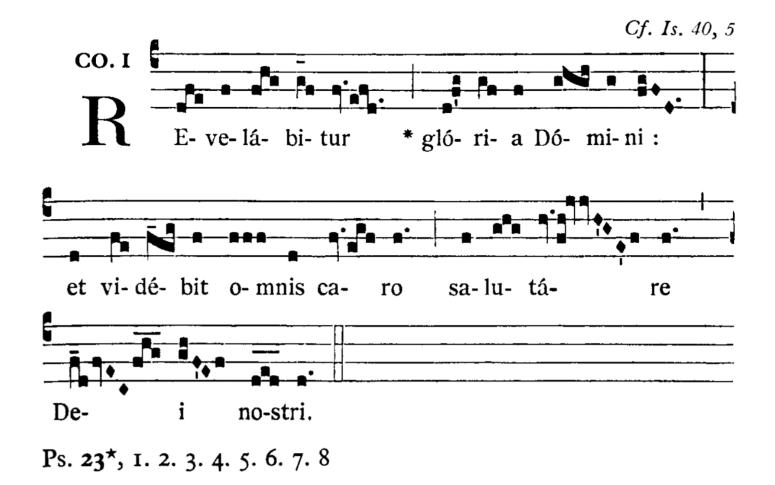
sweet/rit.: x (expectare)

	St. Gallen	Metz	Nordfrz.	Benevent	Aquitan.	Quadrat-N.	Hufnagel
Punctum	· (•~	•	~	•	•	*
Virga	11	5	1	1	1000	٩	T
Podatus (Pes)	11	14	1	J	~~	8	1
Clivis (Flexa)	\wedge	75	ſ	17	A :	P	P 1
Scandicus	11	ş	!	J	1	1	1
Climacus	/./=	: 2	1.(8)	1	:	*	1.
Torculus	S5-	2	ſ	Л	~	Λ	4
Porrectus	N	V	N	NV	20	N	11
D Die acht Grundr Pes subbipunctis		irschiedene 1	Г	Strophicus	8	>> >>>	
Torculus	N	M N Spe Oriscus			57		
resupinus	Committee and the second			Pressus			Contraction of the
Porrectus flexus	M	N	(Vort	Pressus		1.	-1-
	~ ~	N ^t	umen (Vort	Pressus Trigon		<i>P</i> : 	-1-
Porrectus flexus			Haken-Neumen (Vortragsweise)				

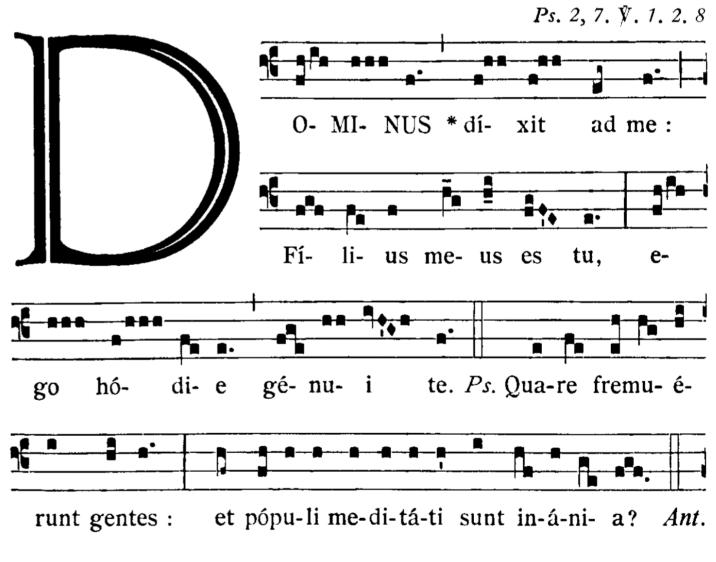
E Häufige Neumen in St. Galler und heutiger Choralschrift (Quadratnotation)

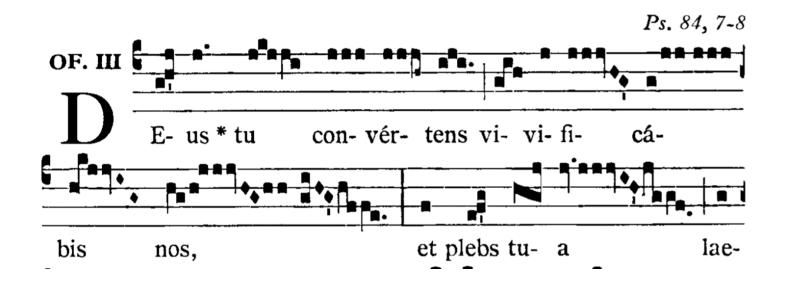


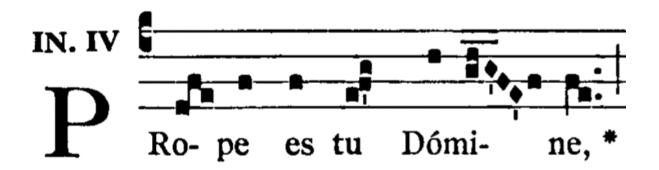
Practical examples

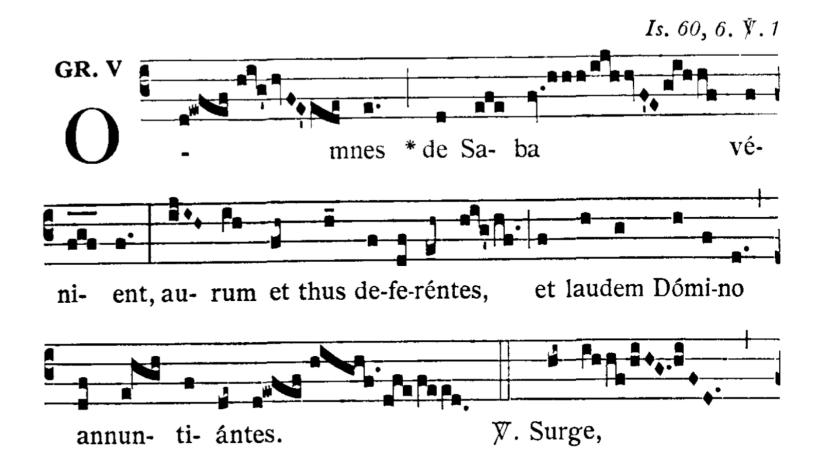


Antiphona ad introitum II

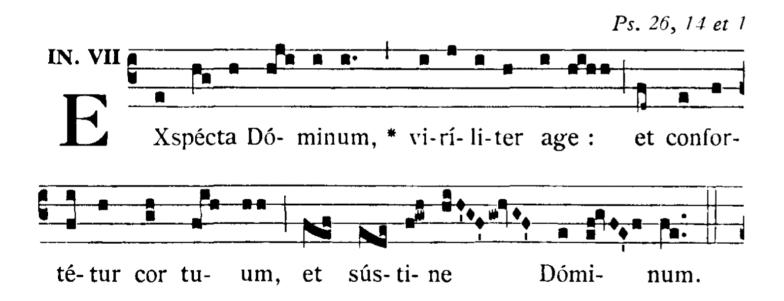








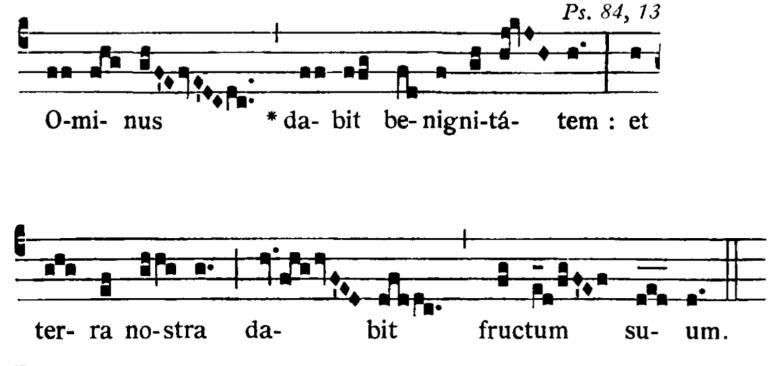




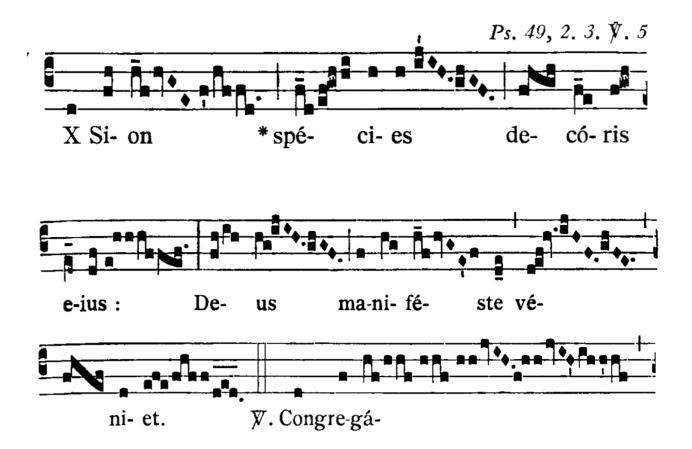


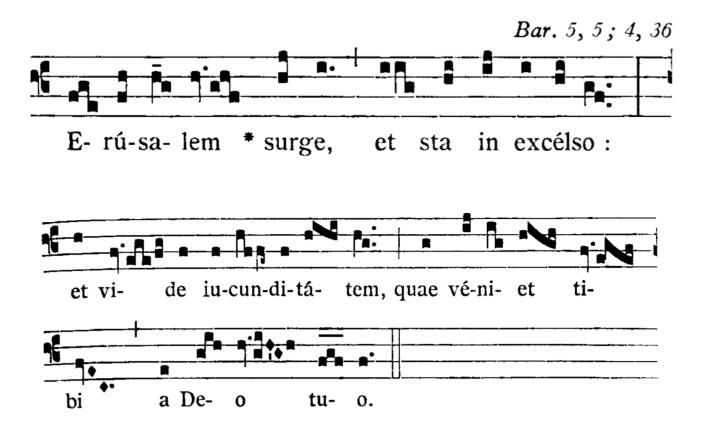


Repetitorium Musica figurata



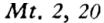
Ps. 84, 2. 3. 4. 5. 7. 8. 10. 11. 12

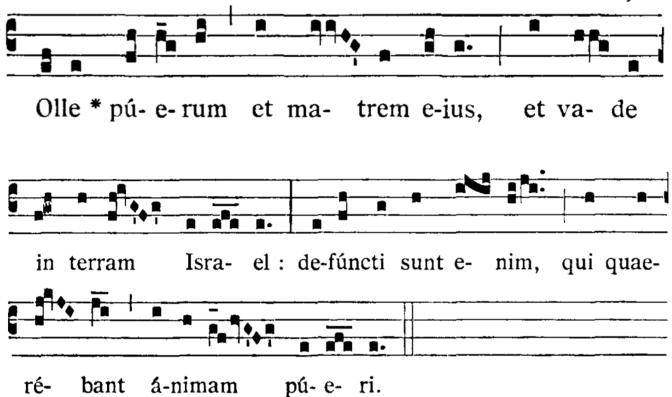




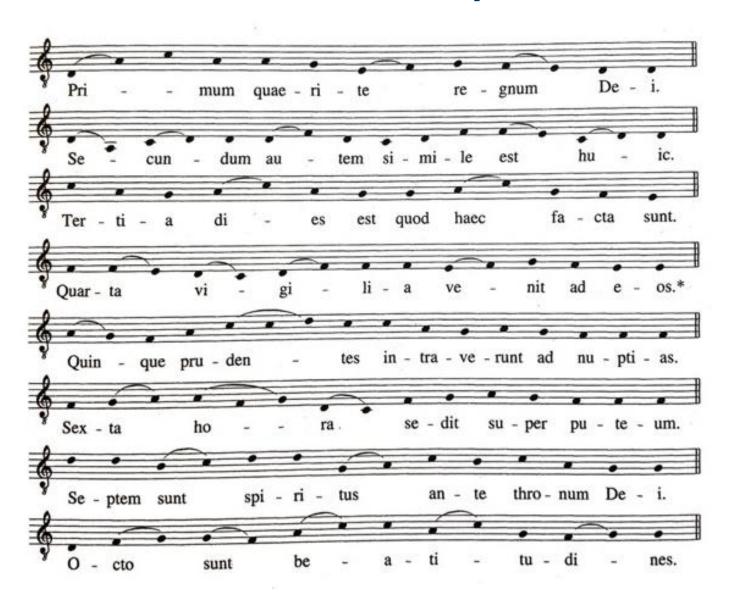








Practical examples



Practical examples

