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Apollinis eclipsatur. Foundation of the 'Collegium musicorum'

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Study of the work of B. de Cluni admirably suits our theme, for this deeply learned poet-composer combined three mythological bases from four texts: Plato's *Timaeus*, Jerome's *Biblia Vulgata*, and Boethius's *De institutione arithmetica* and *De institutione musica*.¹ From the biblical tradition, he wove into his composition elements from three parts, the beginning (Genesis), the middle (Psalms), and the end (Revelation). He constructed a three-part motet, comprising a triplum *Apollinis eclipsatur*, a duplum *Zodiacum signis*, and a tenor *In omnem terram*, to praise his colleagues and their works by comparing them with the most illustrious figures in the history of Western music, in a synthesis of mythology, poetry, mathematics, and music so complete that one cannot neatly separate the strands for analysis.² His composition achieved a wide circulation, surviving into the modern period in eleven manuscript copies. It became a base from which other poets and composers learned, a text from which they quoted, to which they alluded, and to which they attached in various ways an extensive cycle of additional parts and completely new motets known, from the sixth line of the triplum, as the 'Collegium musicorum'.³ The composition further suits our theme in that much of its artistry has emerged in the company of our learned honorand.

In the texts of Table 12.1 italics suggest rhymes. Columns to the right of the text mark rhyme schemes and numbers of words, syllables, and letters.

- ¹ For analysis of the literary tradition see David Howlett, *The Book of Letters of Saint Patrick the Bishop* (Dublin, 1994), *The Celtic Latin Tradition of Biblical Style* (Dublin, 1995), *The English Origins of Old French Literature* (Dublin, 1996), *British Books in Biblical Style* (Dublin, 1997), *Cambo-Latin Compositions: Their Competence and Craftsmanship* (Dublin, 1998), *Scaled from Within: Self-Authenticating Insular Charters* (Dublin, 1999), *Caledonian Craftsmanship: The Scottish Latin Tradition* (Dublin, 2000), and articles in *Archivum Latinitatis Medii Aevi*, Cambridge (later Cambrian) *Medieval Celtic Studies*, *Mittelaltinisches Jahrbuch*, and *Peritia* from 1994 to 2000.
- ² Frank Ll. Harrison, ed., *Motets of French Provenance, Polyphonic Music of the Fourteenth Century 5* (Monaco, 1968), no. 9, pp. 50–3, repr. as *Musorum Collegio, Fourteenth-Century Musicians' Motets* (1986), no. 2 pp. 7–10.
- ³ Ibid., and Frank Ll. Harrison, ed., *Motets of English Provenance, Polyphonic Music of the Fourteenth Century 15* (Monaco, 1980). Note in these titles how often the first three syllables of the triplum A-PO-LI recur.

Table 12.1: Texts of Apollinis/ Zodiacum/ In omnem

	line	rhyme	words	syllables	letters
TRIPLUM					
APollinis eclipsatur		a	2	8	19
nunquam lux cum peragatur		a	4	8	22
Signorum ministerio		b	2	8	18
bis sex, quibus armonica		c	4	8	20
fulget arte basilica	5	c	4	8	20
musicorum collegio		b	2	8	17
multiformibus figuris		d	2	8	20
e quo nitet J. de Muris		d	6	8	17
modo colorum uario		b	3	8	16
Philippus de Vitriaco	10	e	3	8	19
acta plura uernant a quo ^a		e	5	8	20
ordine multipharo		b	2	8	17
noscit Henricus Helene		f	3	8	20
tonorum tenorem bene		f	3	8	20
Magno cum Dionisio	15	b	3	8	16
Regaudus de Tiramonte		g	3	8	19
Orpheico potus fonte		g	3	8	18
Robertus de Palacio		b	3	8	17
actubus penulancia		h	2	8	17
fungens gaudet poetria	20	h	3	8	20
Guilhermus de Mascaudio		b	3	8	21
Egidius de Morino		i	3	8	15
baritonans cum Guarino		i	3	8	20
quem cognoscat Suessio		b	3	8	20
Arnaldus Martini iugis	25	j	3	8	20
philomena P. de Brugis		j	4	8	18
Gaufridus de Barilio		b	3	8	18
uox quorum mundi clāmata		k	4	8	21
penetrat ad agalmata		k	3	8	18
Doxe fruuntur brauiol	30	b	3	8	18
TOTALS for triplum		ll	93	240	557
DUPLUM					
Zodiacum signis lustrantibus		a	3	10	26
armonia Phebi fulgentibus		a	3	10	23
musicali palam sinergia		b	3	10	21
Pictagore numerus ter quibus		a	4	10	25
adequatur preradiantibus	5	a	2	10	23
Boecii basis solercia		b	3	10	19
B. de Cluni nitens energia		b	5	10	21

^a From at least the twelfth century – *ac ut a quo* was a pure rhyme, as one infers from the spelling of the surname of Alexander Neckam as *Nequam* and from the rhymes of the Archpoet *ecus* (i.e. *equus*) – *Grecus* – *cecus* – *pecus*.

	line	rhyme	words	syllables	letters
artis practice cum theoria		b	4	10	23
recommendaſ se ſubdit omnibus		a	4	10	27
presencia per ſalutaria	10	b	3	10	21
Musicorum tripli materia		b	3	10	22
noticiam dat de nominibus		a	4	10	22
TOTALS for duplum		2	41	120	273
TENOR					
In omnem terram exiuit ſonus eorum			13	26	58
et in fines orbis terre uerba eorum.					

The texts may be translated as follows:

Triplum

The light of Apollo [i.e. the sun] is never eclipsed while it is brought through its course in the service of the twice six signs [of the zodiac, i.e. annually; but the same words may mean 'The light of Apollo, i.e. music, is never eclipsed while it is executed in the service of the twice six signs'], by which [sunlight or music] the church shines with harmonic art from the company of musicians with multiform figures. Among these Jehan des Murs is brilliant in the varied mode of colours, from Philippe de Vitry spring many accomplished things in multifarious order, Henri d'Helène knows well the tenor of tones with Denis le Grand, Regaud de Tirlemont, drunk from the Orphic fountain, Robert du Palais, executing his achievements with boldness, Guillaume de Machaut rejoicing in poetry, Gilles de la Théroutanne singing low with Guarin, whom Soissons ought to know, Arnaud de Saint-Martin-du-Ré, the ever-singing nightingale, Pierre de Bruges, [and] Godefroy de Baralle. The voice of these men penetrates to the cardinal points of the world, to their honour. May they enjoy the prize of glory!

Duplum

With signs circling round [and irradiating] the zodiac, shining with the harmony of Phoebus, manifestly in musical cooperation, by which, radiating out, three times the number of Pythagoras [i.e. $3 \times 10 = 30$] is made equal with the cleverness of the basis of Boethius [i.e. 12]. B. de Cluni, shining with the active power of the practical art joined with theory, recommending himself introduces himself to all by these present greetings. The subject matter of the triplum gives notice of the names of musicians.

Tenor

Into every land their sound has gone forth and their words to the limits of the land of the world.

The text of the triplum is divided in several ways. The 20 lines 8–27 exhibit internal chiasmus (see Table 12.2). Compare the two names in A with the three names in A', 'knows' in B with 'ought to know' in B', one name in C1 with one name in C'1, 'tones' in C2 with 'baritone' in C'2, *cum* and one name in C3 with *cum* and one name in C'3, the names of poets in D and D', 'drunk from the Orphic fountain', i.e. with poetry, in E with 'rejoices in poetry' in E', all placed around 'acts, achievements' at the crux of the chiasmus in F.

The 12 lines of the duplum also exhibit internal chiasmus (see Table 12.3).

Table 12.2: Chiasmus naming composers in the triplum

A1	nitet J. de Muris modo colorum uario
A2	Philippus de Vitriaco acta plura uernant a quo
B	noscit
C1	Henricus Helene
C2	tonorum tenorem bene
C3	Magno cum Dionisio
D	Regaudus de Tiramonte
E	Orpheico potus fonte
F	Robertus de Palacio actubus petulancia fungens
E'	gaudet poetria
D'	Guilhermus de Mascaudio
C'1	Egidius de Morino
C'2	baritonans
C'3	cum Guarino
B'	cognoscat
A'1	Arnaldus Martini
A'2	P. de Brugis
A'3	Gaufridus de Barilio

Table 12.3: Chiasmus around the composer in the duplum

A	musicali
B	palam
C	sinergia
D	preradiantibus
E	Boecii basis solercia
E'	B. de Cluni
D'	nitens
C'	energia artis practice cum theoria
B'	presentia per salutaria
A'	musicorum

Compare 'musical' in A with 'musicians' in A', 'openly, manifestly' in B with 'by these present (manifest) greetings' in B', 'in musical cooperation' (working together) in C with 'power' (working) in C', 'radiating out' in D with 'shining' in D', all placed around 'Boethius' and 'B. de Cluni' at the crux in E and E'. The balance of *sinergia* C with *energia* C' suggests the authenticity of *sinergia*, but the readings *sinsagia* and *sinsurgia* in the Ivrea and Barcelona manuscripts attest a variant which appeared early enough in the transmission of this text to influence the text of *Psallentes Zinzugia*.

The intertwined nature of the triplum and duplum is manifest by their high

degree of verbal overlap. The first 12 lines of the triplum exhibit 10 words or phrases that are echoed or prefigured in the 12 lines of the duplum (see Table 12.4).

Table 12.4: Verbal material shared between triplum and duplum

lines	Triplum	lines	Motetus
1	Apollinis	2	Phebi
1-2	eclipsatur nunquam lux cum peragatur	1-2	lustrantibus
3-4	signorum bis sex	1	Zodiacum signis
3	ministerio	9	se subdit omnibus
4	armonica	2	armonia
5	fulget	2	fulgentibus
5	arte	8	artis
6	musicorum	11	musicorum
8	nitet	7	nitens
11	acta	8	practice

B. de Cluni incorporated into his composition the ratios by which, according to Plato's *Timaieus* and the Book of Genesis and Job 38:4-7, God had sung the universe into existence, cosmic ratios thereby becoming ratios of music theory, notably symmetry 1:1, *duplus* or duple ratio 2:1, the golden section or extreme and mean ratio 0.61803 and 0.38197, *hemiohus* or sesquialter ratio $1\frac{1}{2}$:1 or 3:2, *epitritus* or sesquitercian ratio $1\frac{1}{3}$:1 or 4:3, and *epogdous* or sesquioctave ratio $1\frac{1}{8}$:1 or 9:8, or reckoned another way $\frac{1}{9}$ and $\frac{8}{9}$.⁴

The poet divided his triplum of 30 lines, 93 words, and 240 syllables by symmetry 1:1 at the end of the fifteenth line, at *Dionisio* the 47th word, the last syllable of which is 120th. He divided his triplum by duple ratio 2:1 at 20 and 10 lines, 62 and 31 words, 160 and 80 syllables in several ways. The chiasitic passage that names composers occupies 20 lines (lines 8-27). The introductory lines that precede this (lines 1-7) and the concluding lines that follow it (lines 28-30) make a total of 10 lines (i.e. 7 + 3), which exhibits a duple ratio with the 'composers' section. Divided another way, he mentions the names of the two greatest composers, *Philippus de Vitriaco* 10 lines and 31 words from the beginning and *Guilhermus de Mascaudio* 10 lines and 31 words from the end. The first word of the first color is *Apollinis*, the first musician named in the second color is *Philippus de Vitriaco* I, the first musician named in the third color is *Guilhermus de Mascaudio*, an elegant and economical way of linking structurally the names of his two greatest contemporaries with the name of the god of poetry, music, and light. The poet divided the triplum by extreme and mean ratio at $18\frac{1}{2}$ and $11\frac{1}{2}$ lines, 57 and 36 words, 148 and 92 syllables, at *actubus* | *petulancia* at the crux of the chiasitic outline above. The poet divided his triplum by sesquitercian ratio 4:3 at 17 and 13 lines, 53 and 40 words, at the only reference in the triplum to an ancient authority, *Orpheico potus fonte* I. He divided his

triplum by $\frac{1}{9}$ and $\frac{8}{9}$ at 3 and 27 lines, 10 and 83 words, in the last 3 lines and 10 words after naming the last of the musicians.

The poet divided his duplum of 12 lines, 41 words, 120 syllables, and 273 letters by symmetry between the sixth line from the beginning and the sixth line from the end, at the crux of the chiasmus, which is also the centre of the syllables. The last letter of *solercia* at the end of the 6th line is the 137th letter from the beginning and 137th from the end. The central 21st word is *Cluni*, the last part of the poet-composer's name. He divided his duplum by duple ratio at 8 and 4 lines, 80 and 40 syllables, in the 4 lines 7-10 and 40 syllables in which he writes about himself. He divided his duplum by extreme and mean ratio at 7 and 5 lines, 25 and 16 words, at the seventh line from the end and the 16th word from the beginning, *Boecii*, or reckoned the other way round, at the fifth line from the end and the 25th word from the beginning, at *artis practice* | *cum theoria*.

Table 12.5: Parallelism in the tenor

in omnem terram	into all the land
exiuit sonus	has gone forth the sound
eorum	of them
et	and
in fines orbis terre	into the bounds of the land of the world
uerba	the words
eorum	of them

The tenor, quoted from Psalm 18:5, is a parallelism (see Table 12.5). The words are arranged 6-1-6, the syllables 13-13, the letters 29-29. The quotation derives from a psalm that begins *Celi enarrant gloriam Dei*, and continues in the verse directly after the quotation *in sole posuit tabernaculum suum*. B. de Cluni states at the beginning of the triplum that 'the light of the sun . . . is brought through its course in the twice six signs [of the zodiac]' and refers at the beginning of the duplum to the 'signs circling round the zodiac'. The 30 octosyllabic lines of the triplum comprise 240 syllables, and the 12 decasyllabic lines of the duplum 120 syllables, a ratio of 2:1. Together this totals 360 syllables, the number of degrees in a circle.

The words of Psalm 18:5, quoted by Saint Paul in his Epistle to the Romans 10:18, are used in a liturgical context most closely corresponding to this melody in the Offertory for the Apostles Peter and Paul on 29 June, the 180th day of an ordinary year. These apostles, whose words go to the ends of the earth, serve as models for the 12 musicians, whose collective 'voice penetrates to the cardinal points of the world'.

Unusually the tenor is the middle part of this composition, so that, in a sense, the sun and the signs of the zodiac circle round the fixed earth as grounded in the tenor, guided by it but in part independent of it. In this piece the tenor is the symbolic and mathematical foundation of the musical material, but not the primary foundation of the musical structure it appears to support.

Through the structure of his verse, the poet celebrates musical practice in the triplum, in which he mentions one ancient performer, Orpheus, makes *acta* the last of the words that connect triplum with duplum, and places the word *actubus* at the

⁴ See Howlett, *The Celtic Latin Tradition of Biblical Style*, Chapter 1, and *British Books in Biblical Style*, Chapter 1.

golden section of lines and syllables, at the crux of the chiasmus. He celebrates musical theory in the duplum, in which he mentions two ancient theorists, Pythagoras and Boethius. He celebrates the unity of practice and theory in his own art, *nitens energia artis practice cum theoria*.

In the structure of his three-part composition he illustrates the proportion 3:2:1 with three sentences in the duplum, of 6, 4, and 2 lines, in the proportion 3:2:1, with two sentences in the triplum (lines 1–29 and 30) and one sentence in the tenor. The 19 letters of the octosyllable at the beginning of the triplum and the 26 of the decasyllable at the beginning of the duplum together comprise 45 letters, which divide by sesquitercian ratio at 19 and 26. The letters of these verses

APOLLINIS ECLIPSATUR ZODIACUM SIGNIS LUSTRANTIBUS

can be rearranged to produce another octosyllable and another decasyllable

SIGNIS OLIM LUSTRANTIBUS APOCALIPSIS CLUNI DETUR AZ

meaning 'with the symbols [i.e. letters] A–Z moving round on occasion, the revelation of Cluni may be given out'. In the former of these anagrammatic verses the first letters of the words spell SOL 'sun', and in the latter the central letter begins the name of poet and composer, CLUNI. The A of *Apollinis* and the Z of *Zodiacum* recall the α et ω *principium et finis* of Revelation 1:8.

In Latin alphabetic notation the name B. DE CLUNI exhibits a value of $2 + 4 + 5 + 3 + 11 + 20 + 13 + 9$ or 67. With Y for the I spelling B. DE CLUNY exhibits a value of $2 + 4 + 5 + 3 + 11 + 20 + 13 + 22$ or 80. From the beginning of the duplum to B. de Cluni brings one to the 80th breve. Reckoned backward from the end of the duplum B. de Cluni is the 67th.

The 557 letters of the triplum, added to the 273 letters of the duplum, added to the 58 letters of the tenor, comprise 888 letters, equal to the value in Greek alphabetical notation of the name IHCOCY, $10 + 8 + 200 + 70 + 400 + 200 = 888$.

B. de Cluni incorporates pervasive mythological consonances and references to the Apocalypse. He refers to Phoebus Apollo, the Greek god of the sun, in the first line of the triplum and the second line of the duplum. His words in the triplum, *lux, fulget, nitet*, and in the duplum *lustrantibus, fulgentibus, preradiantibus, nitens*, remind us that in Revelation 1:10 John dates the vision to a Sunday, *fui in spiritu in Dominica die*, and in 1:16 John says of the Son of Man *facies eius sicut sol lucet*. As the Son of Man instructs John in 1:11 *quod uides scribe in libro*, B. de Cluni tells us in the last lines of his duplum that he has written the names of musicians in the triplum: *musicorum tripli materia noticiam dat de nominibus*.

Our poet-composer states that *Pictagore numerus ter quibus adequatur Boecii basis solercia* (three times the number of Pythagoras is made equal with the cleverness of the basis of Boethius). In *De Institutione Arithmetica* 2.42 Boethius refers to the perfection of the number 10 because Pythagoras observed that it was the sum of $1 + 2 + 3 + 4$. The number 12 is referred to here as the *Boecii basis* because in *De Institutione Musica* 2.10 Boethius explains musical proportions from it. In this motet the 30 lines of the triplum and the 12 lines of the duplum are 'made equal' by the musical setting which causes them to begin and end together.

Triplum, duplum, and tenor also exhibit remarkable *sinergia* 'working together' in other ways. All three begin on the pitch A. In the middle of breve 111 the *o* of

baritonans is sung in the triplum at the same time as the *o* of *omnibus* in the duplum. At breve 12 the first syllable of *signorum* is sung in the triplum just before the first syllable of *signis* is sung in the duplum. At breve 19 the words *armonia Phebi fulgentibus* are begun in the duplum just before the words *armonica fulget* are begun at breve 23 of the triplum; both text phrases end together at the beginning of breve 25. In breves 28–33 of the duplum the word *musicali* is sung in long notes, extending before, during, and after the singing of *musicorum collegio* in breves 30–32 of the triplum. The first of the names of B. de Cluni's contemporaries, *Iohannes de Muris*, is sung in the triplum in breves 37–38 just before the first of the names, *Pictagore*, is sung in breves 39–41 of the duplum.

The number 6 is both perfect and triangular, the product of $1 \times 2 \times 3$ and the sum of $1 + 2 + 3$. It is the number of the Hexaemeron, the Six Days of Creation. In this composition the words *bis sex* 'twice six' occur after six tenor notes, after six perfect longs, at the beginning of the second group of six in each case. *Musicali* is preceded by six words, and *musicorum* is followed by six words that allude to the twice six musicians named in the triplum. The tenor comprises three colores, each of two tales in equal proportion, without diminution, together making six.

The number 12 is also fundamental to the construction of text and music. In the triplum 12 musicians are named in 12 lines. The 12 signs of the zodiac are mentioned at the beginning of the duplum, of which the 12 lines of verse correspond to the *Boecii basis*. Diction noted in Table 12.4 above that connects the 12-lined duplum with the triplum occurs in the first 12 lines of the triplum. In the duplum the twelfth note is the first note of *signis*. The triplum is 144 (12×12) breves long, the square of the number of gates in the heavenly Jerusalem (Revelation 21:12), the number of cubits in the walls of the heavenly Jerusalem (Revelation 21:17), part of the number of the elect in the heavenly Jerusalem, 144,000, that is 12,000 from each of the 12 tribes of Israel (Revelation 7:4–8).

These are only a few of the ways in which one poet-composer made a complete organic fusion of the static words and moving rhythms of poetry with the static numbers of arithmetic and moving numbers of music, in order to communicate timeless truths about mythology, theology, and the structure of the universe. In a synthesis of time with eternity he praised the greatest of his contemporaries, relating them in the triplum and himself in the duplum to the greatest of their predecessors as musicians, Orpheus, Pythagoras and Boethius, and their divine patron, Phoebus Apollo, god of poetry and music and light, and relating all in the tenor to the Psalmist and the greatest apostles, Peter and Paul. The learning of our poet-composer was deep and wide, but it appears in his composition with a lightness of touch not unlike that by which our honorand has communicated discoveries about our tradition to friends and students and a wider scholarly community.

IN CITATION AND AUTHORITY IN
MEDIEVAL AND RENAISSANCE
MUSICAL CULTURE