

Business Math, Politics, and Paradise: The *Ars Nova*

NOTATIONAL AND STYLISTIC CHANGE IN
FOURTEENTH-CENTURY FRANCE; ISORHYTHMIC MOTETS FROM
MACHAUT TO DU FAY

A “NEW ART OF MUSIC”?

And yet (to pick up immediately on the closing thought of the previous chapter, and perhaps pick a fight with it) one can certainly point to times when changes in composing practice did take place for a definite composerly purpose, whether to enable specific technical solutions to specific technical problems, to enlarge a certain realm of technical possibility, or to secure specific improvements in technical efficiency. Why not call that progress?

No problem; but let us distinguish technical progress from stylistic evolution. The one affects the making only; the other is also the beholder’s business. Technique is an aspect of production; style is an attribute of the product. Style, one might therefore say, is the result of technique. Hence stylistic evolution can be, among other things, a result of technical progress. But although all makers constantly try to improve their techniques, until quite recently no one ever thought deliberately to change his or her style as such. And whereas new techniques can replace or invalidate old ones, new styles do not do this, so far as the beholder is concerned. The fact that so many of us still listen to old music as much as (if not more than) to new music is sufficient proof of that.

To seek or abet style change in the name of progress means merging the concepts of technique and style. To do that required a sea change in the way artists (and not only artists) thought about means and ends. That change began to happen only near the end of the eighteenth century, but the question needs airing now, because the fourteenth century was indubitably a time of intensive and deliberate technical progress in the art of the musical *literati*—of those, that is, who made and used the music of the burgeoning literate tradition. Its result, inevitably, was an enormous change in musical style.

The best evidence we have that fourteenth-century technical progress in music was a highly self-conscious affair are the titles of two of the century’s most important technical treatises, and the nature of the debate they sparked. The treatises were the *Ars novae musicae* (“The art of new music”), also known as *Notitia artis musicae* (“An introduction to the art of music”) by Jehan des Murs (alias Johannes de Muris), first

Richard Taruskin, *Music from the Earliest Notations to the Sixteenth Century*, The Oxford History of Western Music, pp. 247–70, annotated and updated by Anna Zayaruznaya for use in Music 350. October 4, 2021. New Haven.

Here’s the closing thought of the previous chapter, occasioned by a motet by Petrus de Cruce (*Aucun ont trouvé/Lonctans me sui*) that features some “exaggerated rhythmic differentiation” of the top voice from the lower parts: “One can trace [stylistic evolution] with interest, appreciate its vicissitudes, delight in the new possibilities it creates, and marvel at the ingenuity with which these possibilities are exploited, and yet remain skeptical of the notion that art makes progress” (245).

Good idea. Let us. And let’s start by paying close attention to the Latin word “ars.” It’s often translated as “art” and that’s how we get “the New Art of Music.” But that’s a bit of a false cognate. *Ars* is the Latin equivalent of the Greek *techne* (τέχνη if you’re fancy), and is defined as a “skill in joining something, combining, working it,” and by extension, “any physical or mental activity, so far as it is practically exhibited.” *Ars* is also “science” or “knowledge” and, again by extension, “the theory of any art or science.” So *ars* is about doing something and theorizing the doing. *Ars* is activity.

Actually that’s not the title of the treatise. It has indeed been known by scholars as the “*Notitia artis musicae*” (which translates better as “knowledge of the way of music”) but this is from a sentence in a different treatise taken out of context (Desmond 2018, 85–6). FWIW Muris seems to have referred to it as his *Summa musicae* (“The Essence” or “the stuff” of Music).

Books 1-2 1319, the rest now considered to be as late as the 1330s. Pay attention to these shifting dates...

So actually it was called "Ars vetus et nova" which for the sake of argument let's translate as "The old way and the new"

There's basically no way to know exactly when Vitry wrote his treatise. The three sources that survive—all later reworkings—are from c. 1350 and later. The reason these early dates are hanging out is because of a scholarly conviction that something big changed in the 1320s.

Muris trained at the University. No evidence of this for Vitry, though he must have trained somewhere. Muris was a mathematician. Vitry once commissioned a treatise on math from a mathematician, Levi Ben Gershon. But I wouldn't exactly call him a mathematician...

Ah, the old race between theory and practice. It turns out that this idea—that theory outpaced practice in this case, and thus "the Ars nova" was a theoretical revolution—depends entirely on a flawed chronology. Stay tuned...

drafted between 1319 and 1321, and the somewhat later, even more bluntly titled *Ars nova* ("The new art [of music]"), a torso or composite of fragments and commentaries surviving from a treatise based on the teachings of Philippe de Vitry (1291–1361), known by the end of his life as the "flower of the whole musical world" (*flos totius mundi musicorum*), to quote a British contemporary.¹ The *Ars Nova* treatises began appearing around 1322–1323.

The authors, both trained at the University of Paris (where Jehan des Murs eventually became rector), were mathematicians as well as musicians—not that this should surprise us, in view of music's place alongside mathematics and astronomy in the traditional liberal arts curriculum. The new mensural notation that had been pioneered in the thirteenth century by Franco and company could not help but suggest new musical horizons to scholars who were accustomed to thinking of music as an art of measurement. And yet "Franconian" notation, geared toward an already existing rhythmic style and limited to supplying that style's immediate needs, only scratched the surface of the number relationships that might conceivably be translated into sound durations, whether for the sake of sheer intellectual or epicurean delight or as a way of bringing *musica practica*—or *musique sensible*, "the music of sense," as translated by Philippe de Vitry's younger contemporary Nicole d'Oresme²—into closer harmony with *musica speculativa* (the music of reason).

Though spurred originally by a speculative, mathematical impulse, the notational breakthroughs of Jehan and Philippe had enormous and immediate repercussions in the practice of "learned" music—repercussions, first displayed in the motet, that eventually reached every genre. So decisive were the contributions of these mathematicians for the musical practice of their century and beyond that the theoretical tradition of Philippe de Vitry has lent its name to an entire era and all its products; we often call the music of fourteenth-century France and its cultural colonies the music of the "Ars Nova." Neither before nor since has theory ever so clearly—or so fruitfully—outrun and conditioned practice.

MUSIC FROM MATHEMATICS

From a purely mathematical point of view, the *Ars Nova* innovations were a by-product of the theory of exponential powers and one of its subtopics, the theory of "harmonic numbers." It was in the fourteenth century that mathematicians began investigating powers beyond those that could be demonstrated by the simple geometry of squares and cubes. The leader in this field, and one of the century's leading mathematicians, was Nicole d'Oresme (d. 1382), the first French translator of Aristotle, whose writings (as we have already seen) encompassed music theory as well. His career as scholastic and churchman closely paralleled that of Philippe de Vitry: Philippe ended his ecclesiastical career as the Bishop of Meaux, northeast of Paris; Nicole ended his as Bishop of Lisieux, northwest of Paris. Nicole d'Oresme's *Algorismus proportionum* was the great theoretical exposition of fourteenth-century work in "power development" (recursive multiplication) with integral and fractional exponents; but it was precisely in Jehan des Murs's music treatise that the fourth power first found a practical application.

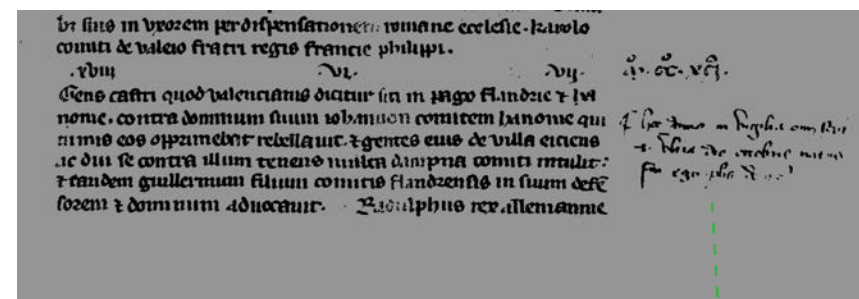
Here's something cool: Vitry is probably the first composer for whom a date of birth survives. And the reason we know when he was born is that he owned a copy of a book, the *Chronicon* of Guillaume de Nangis, which was a history of the world from the creation to 1303. For the year 1291, he wrote in the margin: "In this year on the Vigils of All Saints and the last day of October I was born—I, Philippe de etc." (see crappy image below).

This means that 1) Vitry was cocky enough to write himself into the history of the world; and 2) His birthday is Halloween!

Vitry's date of death is known because by the time he died he was a bishop, and hence a Big Deal.

Beware of claims about music that rely on its place in the traditional liberal arts curriculum. Yes, it's there in the quadrivium alongside Arithmetic, Astronomy, and Geometry (that means that music is a quadrivial pursuit, unlike the trivial Grammar, Logic, and Rhetoric), but then "music" is a pretty broad term in the Middle Ages as now. It's the mathematical basis of consonance that lands it there—recall Pythagoras, Boethius, the monochord, and all those supernumerary ratios. The institutions that taught the Quadrivium actually did not teach practical music-making or composition. And music has been in the Quadrivium since late Antiquity—so what work, exactly, is its invocation doing here to describe a particular moment in the fourteenth century? This should invite skepticism.

Another thing that should invite skepticism is "the new mensural notation... could not help but suggest." Because let's face it, notations don't suggest things, people do. Inevitability is a pretty weak argument in a history of music. Is anything musical really inevitable?



Vitry's scribbles

Vitry commissioned the treatise. There was no collaboration. And [a recent article by Yale Ph.D. Will Watson](#) definitively proves that this treatise has nothing to do with rhythm. It's all about pitch.

Wrong! The *major* semibreve is the one with a down-tail (♣). The smallest semibreve, worth 1/9 of a breve, eventually gets an up-stem when it is written in the new way (*ars nova*), and looks like this: ♣.

As for “harmonic numbers,” this was a term coined by the mathematician Levi ben Gershom (alias Gersonides or Leo Hebraeus, 1288–1344), a Jewish scholar who lived under the protection of the papal court at Avignon. Gersonides’s treatise *De numeris harmonicis* was actually written at the request of Philippe de Vitry and partly in collaboration with him. It consists of a theoretical account of all possible products of the squaring number (2) and the cubing number (3), and their powers in any combination.

All of this became music, first of all, in the process of rationalizing the “irrational” divisions of the breve into semibreves, with which, as we saw at the end of the previous chapter, composers like Petrus de Cruce had been experimenting at the end of the thirteenth century. And the other “problem” that motivated the Ars Nova innovations was that of reconciling the original twelfth-century “modal” concept of the longa as equaling twice a breve (that is, the two-tempora long of “Leonine” practice as later codified by Johannes de Garlandia) with the thirteenth-century “Franconian” concept of the longa as equaling a “perfection” of three tempora.

In turn-of-the-century “Petronian” motets, like Ex. 7-10, a breve could be divided into anywhere from two to nine semibreves. The obvious way of resolving this ambiguity was to extend the idea of perfection to the semibreve. The shortest Petronian semibreve (1/9 of a breve) could be thought of as an additional — minimal — level of time-division, for which the obvious term would be a *minima* (in English, a “minim”), denoted by a semibreve with a tail, thus: †. Nine minimae or minims would thus equal three perfect semibreves, which in turn would equal a perfect breve. All of this merely carried out at higher levels of division the well-established concept of ternary “perfection,” as first expressed in the relationship of the breve to the long. On a further analogy to the perfect division of the long (but in the other direction, so to speak), three perfect longs could be grouped within a perfect maxima or *longa triplex*.

We are thus working within a fourfold perfect system expressible by the mathematical term 3^4 , “three to the fourth,” or “the fourth power of three.” The minim is the unit value. Multiplied by 3 (3^1) it produces the semibreve, which has three minims. Multiplied by 3×3 (3^2) it produces the breve, which has nine minims. Multiplied by $3 \times 3 \times 3$ (3^3) it produces the long, which has 27 minims; and multiplied by $3 \times 3 \times 3 \times 3$ (3^4) it produces the maxima, which has 81 minims. Each of these powers of three constitutes a level of musical time-division or rhythm. Taking the longest as primary, Jehan des Murs called the levels

1. *Maximodus* (major mode), describing the division of the maxima into longs;
2. *Modus* (mode), as in the “modal” rhythm of old, describing the division of longs into breves, or tempora;
3. *Tempus* (time), describing the division of breves into semibreves; and
4. *Prolatio* (Latin for “extension,” usually designated in English by an ad hoc cognate, “prolation”) describing the division of semibreves into minims.

And he represented it all in a chart (Fig. 8-1) which gives the minim-content of every perfect note value in “Ars Nova” notation.

There are no “irrational” divisions of the breve into semibreves. But then it doesn’t help that Taruskin misunderstands Petronian semibreves. (He’s not alone—a lot of other people have misunderstood them.) The idea that a breve could be divided into, for example, seven *equal* semibreves, strains credulity. Septuplets in the thirteenth century? Scholarly consensus is aligning on this one to explain that the Petronian style did not involve dividing breves into equal subdivisions, but rather into patterns. Here’s one way it might have worked, following a set of directions from a treatise that compares the *ars vetus* with the *ars nova* (this being *ars vetus*):¹

¹ Here’s the passage, if you are curious. “If two semibreves are written for a perfect tempus, the second should be pronounced as major, and is worth two semibreves, unless the first is tagged. If three, all are equal. If four, the first is minor, the second is a minima, and the others are semibreves. If five, the first and third minor, the second and fourth minimae, the fifth a semibreve. If six, the even are minimae, the odd minor. If seven, the fourth and sixth minor, the rest minimae. If eight, the seventh is minor, the rest minimae. If nine, all are minimae.”

| | | | |
|------------------------------|--|--|--|
| First degree (Major mode) | 81 Triplex long Longissima Maxima | 54 Duplex long Longior Major | 27 Simplex long Longa Magna |
| Second degree (Mode) | 27 Perfect long Long Perfecta | 18 Imperfect long Semilong Imperfecta | 9 Breve Breve Brevis |
| Third degree (Time) | 9 Perfect breve Breve Brevis | 6 Imperfect breve Semibreve Brevior | 3 Minor semibreve Minor Brevisssima |
| Fourth degree (Prolation) | 3 Perfect semibreve Minor Parva | 2 Imperfect semibreve Semiminor Minor | 1 Minim Minim Minima |

FIG. 8-1 Harmonic proportions according to Jehan de Murs.

And now the stroke of genius: The whole array, involving the very same note values and written symbols or graphemes, could be predicated on Garlandia's "imperfect" long as well as Franco's perfect one, from which a fourfold imperfect system could be derived, expressible by the mathematical term 2^4 , "two to the fourth," or "the fourth power of two." Again taking the minim as the unit value, multiplied by 2 (2^1) it produces a semibreve that has two minims. Multiplied by 2×2 (2^2) it produces a breve that has four minims. Multiplied by $2 \times 2 \times 2$ (2^3) it produces a long that has 8 minims; and multiplied by $2 \times 2 \times 2 \times 2$ (2^4) it produces a maxima with only 16 minims.

So at its perfect and imperfect extremes, the "Ars Nova" system posits a maximum notatable value that could contain as many as 81 minimum values or as few as 16. But between these extremes many other values were possible, because the levels of maximodus, modus, tempus, and prolatio were treated as independent variables. Each of them could be either perfect or imperfect, yielding on the theoretic level an exhaustive array of "harmonic numbers," and, on the practical level, introducing at a stroke as wide a range of conventional musical meters as musicians in the Western literate tradition would need until the nineteenth century.

To deal, briefly, with the speculative side (since it was that side that initially drove the engine of change), maximae could now contain the following numbers of minimae between the extremes we have already established:

- [High end (all perfect) $3 \times 3 \times 3 \times 3$ (3^4) = 81 minimae]
- Any one level imperfect $3 \times 3 \times 3 \times 2$ ($3^3 \times 2^1$) = 54 minimae
- Any two levels imperfect $3 \times 3 \times 2 \times 2$ ($3^2 \times 2^2$) = 36 minimae
- Any three levels imperfect $3 \times 2 \times 2 \times 2$ ($3^1 \times 2^3$) = 24 minimae
- [Low end (all imperfect) $2 \times 2 \times 2 \times 2$ (2^4) = 16 minimae]

By similar calculations one can demonstrate that the long can contain 27, 18, 12, or 8 minims; a breve can contain 9, 6, or 4 minims; and a semibreve can contain 3 or 2 minims. The array of all numbers generated in this way, beginning with the unit—1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 27, 36, 54, 81—is the array of what Gersonides called harmonic numbers, since they are numbers that represent single measurable durations that can be fitted together ("harmonized") to create music.

PUTTING IT INTO PRACTICE

So much for the theory, which like all scholastic theory had to be exhaustive. The implications of all this tedious computation for *musique sensible*, by appealing

Beware of strokes of genius.

What Taruskin is doing on this page is collapsing a whole bunch of stuff that happened gradually into one paragraph. He may not have known that that was what he was doing—he's a textbook author, not an *ars nova* scholar. (Though he did start out his career as a scholar of fifteenth-century music before moving to Russian topics.)

Keep track of this idea. And note that there are some chronological assumptions baked into it.

It's worth pointing out that no one in fourteenth century seems to be engaged in "all this tedious computation." This is Taruskin's take on their system, but it's not how they seem to think about the system. As scholars, we make the distinction between "etic" and "emic" viewpoints, where "etic" is an outsider's perspective on something (usually this outsider is a linguist or a sociologist or anthropologist or something—so a Professional Outsider, if you like) and "emic" is the perspective from within the culture, as best as we can identify it. As my various annotations on this point have probably already made clear, the strong alignment between mathematical computation and notation is a contemporary take on 14th-century priorities. I don't see the evidence for this from within the culture in question. Which is not to say that it's not a valid perspective, but let's be careful about how we attribute it, and to whom.

contrast, were simple, eminently practical, and absolutely transforming. To begin with, *maximodus* was pretty much a theoretical level (except in the tenors of some motets) and can be ignored from here on. Moreover, in practical music it was the breve, rather than the minim, that functioned as regulator. Its position in the middle of things made calculations much more convenient. Lengths could be thought of as either multiples or divisions of breves. But then, as the “tempus” value, it had long been the basic unit of time-counting. Petrus de Cruce’s use of “division points” (*puncta divisionis*) had already established it as the de facto equivalent of the modern “measure” (or bar, as the British say, and as we say when we aren’t being too fastidious). It was this measure and its divisions, then, rather than the unit value and its multiples, that defined mensurations for practical musicians and those who instructed them.

So we can henceforth confine our discussion to the levels of tempus and prolation—that is, the number of semibreves in a breve and of minims in a semibreve. The former level defines the number of beats in a measure; the latter, the number of subdivisions in a beat. And that, by and large, is the way we still define musical meters. (One must include the qualifier “by and large” because our modern concept of meter includes an accentual component that is not part of *Ars Nova* theory.)

We end up with four basic combinations of tempus (T) and prolation (P):

1. Both perfect (*tempus perfectum, prolatio major*)
2. T perfect, P imperfect (*tempus perfectum, prolatio minor*)
3. T imperfect, P perfect (*tempus imperfectum, prolatio major*)
4. Both imperfect (*tempus imperfectum, prolatio minor*).

The first combination, with three beats in a bar and three subdivisions in a beat, is comparable to our modern compound triple meter ($\frac{9}{8}$). The second, with three beats in a bar and two subdivisions in a beat, is like “simple” (or just plain) triple meter ($\frac{3}{4}$). The third, with two beats in a bar and three subdivisions in a beat, resembles compound duple meter ($\frac{6}{8}$); and the fourth, with two beats in a bar and two subdivisions in a beat, is like our “simple” (or just plain) duple meter ($\frac{2}{4}$).

The resemblance between these *Ars Nova* mensuration schemes and modern meters is notoriously easy to overdraw. It is worth repeating that “meter,” to us, implies a pattern of accentuation (strong and weak beats) whereas mensuration is only a time measurement. And it is also worth pointing out that when modern meters are compared, or when passing from one to another, it is usually the “beat” (the counterpart to the semibreve) that is assumed to be constant, whereas in *Ars Nova* mensuration the assumed constant was either the measure (the breve) or the unit value (the minim).

Because the beat (called the *tactus*, the “felt” pulse) was a variable quantity within the *Ars Nova* mensuration scheme, and because authorities differed as to whether the measure (*tempus*) was also a variable, an ineradicable ambiguity remained at the heart of the system that had to be remedied over the years by a plethora of *ad hoc* auxiliary rules

Nope. The only way to know what’s being held constant is to find cases where different kinds of breves (or semibreves or whatever) are immediately couterposed. In most of the cases of this that I can think of from the earlier parts of the 14th c., the minims, semibreves, and breves are all held constant, while perfect and imperfect longs are combined in different voices. Here’s an example of that from a motet from the 1320s (probably) that we refer to as *Douce/Garison* (because its triplum text begins “Douce playsence” and its motetus starts off “Garison selon nature”). In the pink boxes, the mensuration is imperfect modus, imperfect tempus, major prolation. In the blue boxes, the modus is perfect, while the tempus and prolation are still imperfect:

The image shows a musical score for a motet from the 1320s. It features three staves: Triplum (top), Motetus (middle), and Tenor (bottom). The lyrics are: "qui d'amors naist quant ces regars par son sou-til a-trait en re-gar-re de - si - rec de sa dou-". The score is divided into two sections, marked with measure numbers 15 and 23. Mensuration diagrams are provided for each section. The first diagram (pink) shows imperfect modus, imperfect tempus, and major prolation. The second diagram (blue) shows perfect modus, imperfect tempus, and major prolation.

For a more complicated version of this from later—perhaps the 1340s—we can take a look at the motet *Impudenter/Virtutibus*, where we get tempus-level conflicts. In the green boxes below, tempus is imperfect; in the purple boxes, tempus is perfect (prolation is major throughout). So that means that it is indeed the semibreve that’s being held constant.

The image shows a musical score for a motet from the 1340s. It features four staves: Triplum (top), Motetus (second), Contratenor (third), and Tenor (bottom). The score is marked with measure number 120. Mensuration diagrams are provided for each section. The first diagram (green) shows imperfect tempus and major prolation. The second diagram (purple) shows perfect tempus and major prolation.

But how did we get into the weeds so quickly? Why are we talking about these unusual cases already? *Mea culpa*. It’s just I get worried about “assumed” (as in “in *Ars nova* mensuration the assumed constant was either the... breve or the... minim”). Ah the sneakiness of the passive voice! This makes it sound like it’s Vitry and friends doing the assuming. So I guess I’m here to tell you that it’s Taruskin assuming. And as it happens, he’s wrong.

and signs. Eventually the whole field became a jungle and a new notational “revolution” became necessary. (It happened around the beginning of the seventeenth century, and we are still living with its results.) Still, the extraordinary advance Ars Nova notation marked over its predecessors in rhythmic versatility and exactness is evident, and unquestionably amounted to technical progress. Everything that was formerly possible to notate was still possible under the new system, and a great deal more besides. As Jehan des Murs triumphantly observed, as a result of the Ars Nova breakthroughs “whatever can be sung can [now] be written down.”

But do not confuse progress in notation with progress in music. In particular, do not think for a moment that duple meter was “invented” in the fourteenth century, as often claimed, just because the means of its notation and its “artful” development were provided then — as if two-legged creatures needed the elaborate rationalizations of the Ars Nova in order to make music to accompany marching or working or dancing. As Jehan’s triumphant claim itself implies, “*musique sensible*” surely employed regular duple meter long before there was a way of notating it — and had, no doubt, since time immemorial. The unwritten repertory was then, and has always remained, many times larger than the literate repertories that form the main subject matter of this or any history text.

But even if the “imperfect mensuration” of the Ars Nova had had its origins in speculation about musical analogues to squares and cubes, and ultimately in speculation about how music might best represent God’s cosmos, it nevertheless made possible the unambiguous graphic representation of plain old duple meter, and willy-nilly provided a precious link between what had formerly been an unwritable and historically unavailable practical background and the elite “artistic” or speculative facade. Lofty theory — the loftiest yet and perhaps the loftiest ever — had inadvertently provided the means by which musical art could more directly reflect the music of daily human life.

REPRESENTING IT

Like all previous notational reforms, the Ars Nova retained the familiar shapes of Gregorian “square” notation, modifying them where necessary (as in supplying the minim) but as slightly as possible. What mainly changed were the rules by which the signs were interpreted. The same notated maxima could contain 16 minims or 81 minims or any of several quantities in between. How was one to know which?

What was needed was a set of ancillary signs — time signatures, in short — to specify the mensural relationships that obtained between the notated shapes. Again, economy was the rule. These signs were adapted directly from “daily life” — that is, from existing measuring practices, particularly those involving time-measurement (*chronaca*) and “business math” (chiefly *minutiae* or fiscal fractions).³

In the fourteenth century, not only musical durations but weight, length, and the value of money were all measured according to the duodecimal (twelve-based) system inherited from the Romans, rather than the decimal (ten-based) system derived from counting on the fingers, only lately available in numerals borrowed from the Arabs.

As if two-legged creatures more naturally dance in duple meters than in triple? Also recall that the modal rhythm of Perotin and friends is already a compound *duple* meter. So ignore the strawperson that is being set up here. The *ars nova* notational innovations eventually led to the possibility of notating duple divisions at more levels than before. What’s interesting to me is that even after it became theoretically possible to notate using minor prolation (that is: two minims per semibreve) it was actually used very rarely. Note that none of the examples in this account demo it, for example. If people had been chomping at the bit to notate things in duple meter the picture would look different. Yes, the unwritten repertory has always been vast in comparison to that transmitted through notation. But I see no evidence that specifically the move from compound duple to fully duple mensurations represents one of these “tip of the iceberg” moments.

Oof. Tall charge. *Ars nova* theorists a bunch of eggheads? It’s the historiography, not the history, giving us this narrative. See more on this below regarding “isorhythm.”

This “even if” is sneaky. I have seen no evidence that the exploration of duple divisions of the breve had anything to do with calculations about squares and cubes.

They almost never actually used these. Exactly one motet using mensuration signs survives from the first half of the century, and others don’t pop up until the 1380s or later. The treatises do describe some time signatures, they just didn’t take off. The treatises also recommend that the singer look at the rhythms notated in the music to figure out the mensuration. Usually this works pretty well. Textbooks, on the other hand, love to talk about the origins of time signatures in the *ars nova*, probably because in general when we look at the past what we most want to see is ourselves. Aha! Duple meter! Aha! Time signatures! Now we’re cooking. But it could be argued that what’s most interesting is the extent to which, even once “time signatures” were invented, and even once fully duple mensurations were possible, they were rarely used. Their priorities were not ours.

Roman weights and measures survived longest in Britain and its cultural colonies. In America, despite long pressure to convert to the decimal metric system, introduced as an “enlightened” by-product of the French Revolution, we still divide feet into twelve inches and pounds into twelve ounces. (In Britain itself, the monetary system remained duodecimal until the 1970s, with twelve pence to the shilling, and 240 pence (12×20) to the pound.) Both “inch” and “ounce” are traceable to the Latin word *uncia*, which stood for the basic unit of duodecimal measurement, whether of weight, length, or money. The *uncia* was the equivalent, in those areas, of the basic unit of musical measurement, the *tempus*.

The standard Roman symbol for the *uncia*—on abacuses used for monetary transactions, for example—was the circle, and the symbol for one-half of an *uncia* (called the *semuncia*), logically enough, was the semicircle. It is hardly a coincidence, then, that the circle and semicircle were adopted as symbols for the division of the *tempus* (breves into semibreves) in *Ars Nova* notation, thus becoming the first standard time signatures used in Western music. The circle stood for *tempus perfectum*—i.e., the “whole” or “perfect” breve containing three semibreves—and the semicircle stood, correspondingly, for *tempus imperfectum*, with two semibreves to a breve.

The signs for major and minor prolation were adapted from the theory of *chronaca*, in which the shortest unit of time—sometimes called the *atomus*, sometimes the *momentum*, and sometimes, yes, the *minima*—was compared with the geometric point (*punctum*), defined by Euclid as that which cannot be subdivided. (“A point,” Euclid wrote in his *Elements*, “is that which has no part.”) The minimal time-unit was sometimes actually called the *punctum*, which is undoubtedly why the point, or dot, became the symbol for the musical minima and its mensuration. The major prolation, in which there were three minims to a semibreve, was at first indicated by placing three dots inside the circle or semicircle that represented the breve. The minor prolation was specified by a pair of dots.

Later on scribes figured out that they could save some ink by subtracting two dots from this scheme. Major prolation could just as well be indicated by a single dot, minor prolation by the absence of a dot. So by the end of the fourteenth century, the four tempus-cum-prolation combinations or meters listed above were represented by four standard time signatures: \odot , \circ , \odot , \circ . The last of them, the one that represented mensuration by two at all levels, still survives (as the sign for “common time”). In the light of the foregoing discussion, it should be obvious that explaining the “C” for $\frac{4}{4}$ meter as the initial of the expression “common time” is a folk-etymology. Its actual derivation was from medieval *minutiae* and *chronaca*, and its survival depended on its “imperfection.” The main difference between modern notation and mensural notation is that although we certainly have our modern ways of indicating triple *meter*, the whole ancient idea of triple or “perfect” *mensuration* has been shed.

The table in Fig. 8-2 sums up the relationships specified by the mensural notation that was first employed by the Parisian musicians who promulgated the “Ars Nova”

Or possibly it was a coincidence. Taruskin is speculating here. (Isn't it funny that “it is hardly a coincidence” is the kind of thing that we only say when in fact the thing might well be a coincidence? It's a form of protesting too much.)

I really don't think they were. Also worth noting once more that there were no signs for major or minor prolation in use for most of the century. Fifteenth-century composers get into this a lot more, for their own reasons. But in 14th-c. pieces notated with *ars nova* notation it was usually perfectly obvious whether the prolation was major (usually) or minor (rarely) based on the groupings of minims.

Is this a joke? I can't tell if this is a joke.

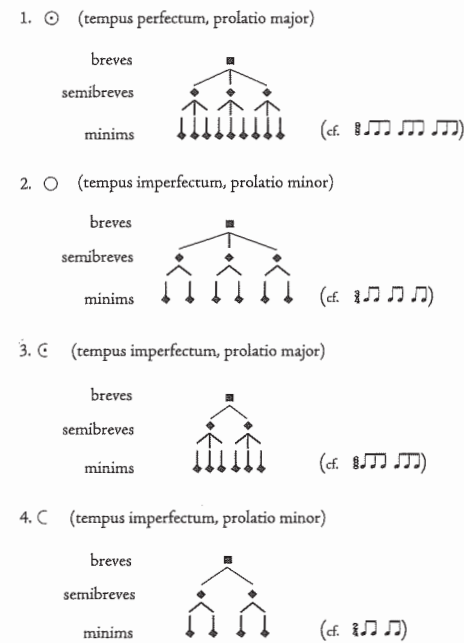


FIG. 8-2 Ars Nova notation: the four signatures.

in the early fourteenth century, and these relationships remained the basis for musical notation in Europe almost to the end of the sixteenth century.

BACKLASH

Just as the technology-minded theorists of the “Ars Nova” represented the first self-conscious *avant garde* faction in European literate music, so they inspired the first conservative backlash. It is found in the seventh and last book of the mammoth *Speculum musicae* (“The mirror of music”), at 521 chapters the largest of all medieval music treatises, completed around 1330 by Jacobus (or Jacques) de Liège. The author was a retired University of Paris professor (thus Jehan des Murs’s senior colleague) who had returned to his birthplace in Belgium to work on this grandiose project, which he

intended as a *summa summarum*—a universal compendium—of musical knowledge. The young innovators of the “Ars Nova,” by extending the boundaries of musical theory, threatened the completeness of Jacobus’s account, so he tried to discredit their advance and thus neutralize the threat.

The basic ploy was to dismiss the Ars Nova innovations as so much superfluous complexity, and to show that their art, by admitting so much “imperfection,” was thereby itself made imperfect when compared with what Jacobus called the “Ars Antiqua,” represented at its unsurpassable zenith by Franco of Cologne. The term Ars Antiqua has also entered the conventional vocabulary of music history to denote Parisian music of the thirteenth century; it is a bad usage, though, since the term has meaning only in connection with its antithesis, and using it tends to ratify the notion that not just technique but art itself makes progress.

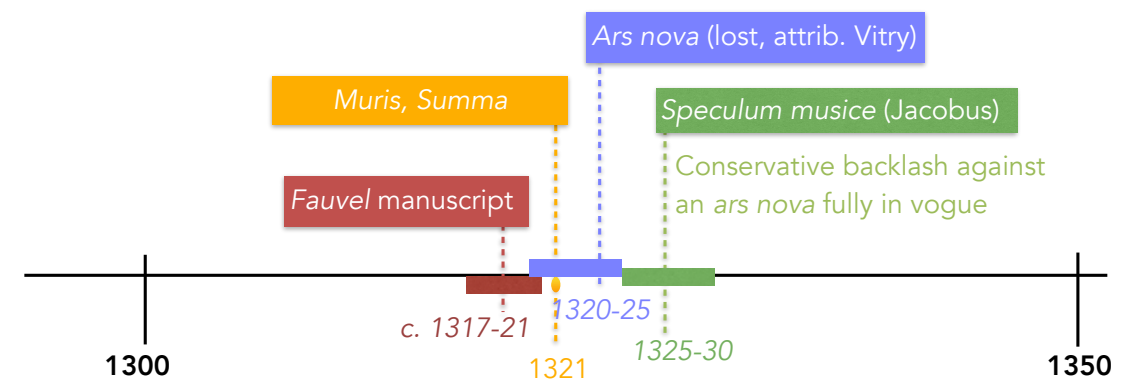
Citing a passage in Jehan des Murs’s treatise in which the author explained the use of the term “perfection” in music by saying that “all perfection does in fact lie in the ternary number” (beginning with the perfection of God Himself, who is single in substance but a Trinity of persons), Jacobus maintained that “the art that uses perfect values more often is, therefore, more perfect,” and that “the art that does that is the Ars Antiqua of Master Franco.”⁴ But of course basing an argument on what amounts to a pun is the very essence of sophistry. And besides, the innovations of the Ars Nova, while demonstrably a breakthrough, and controversial to boot, were in no sense “revolutionary.” The granting of full rights to the imperfect was no challenge to the perfect. Rather, it was an attempt to encompass more fully the traditional “medieval” objective of translating number into sound, thus the more fully to realize the

I bet it wasn’t! But Taruskin is not lying to you either. The received wisdom in the field had long been that Jacobus finished his enormous treatise by c. 1330. The treatise champions the venerable old way (*ars antiqua*) and attacks *ars nova* while lamenting that the new way is a *fait accompli*. Here is an example of Jacobus on his soapbox:

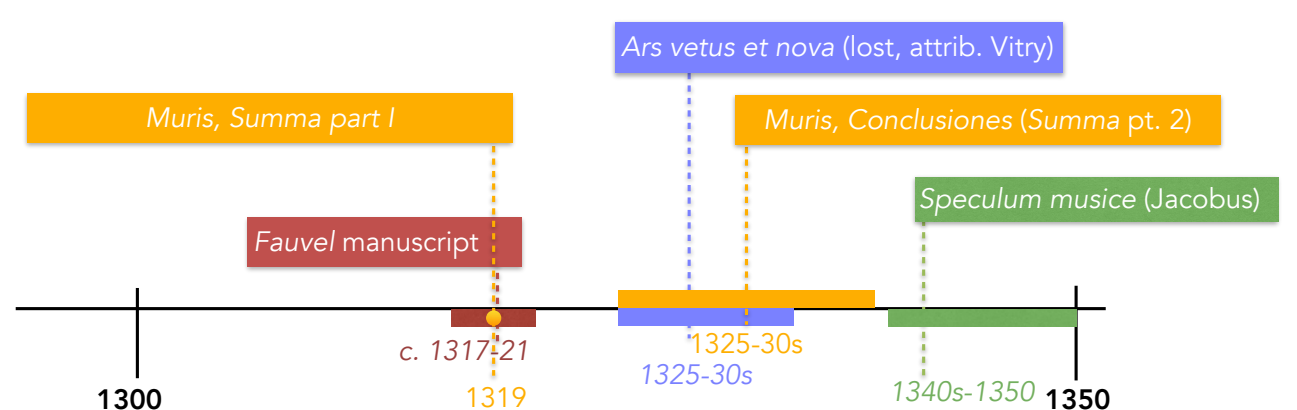
Many are they against whom I undertake this last satirical and polemical work. I do not doubt that the modern way of singing, and the treatises written on it, must be displeasing to many capable men; but I have not seen anyone who would write down something on the matter. I am now one of the ancients who are called backward by some. I am an old man. They are clever and young. Dead are they whom I uphold. Alive are they against whom I dispute. Those newcomers congratulate themselves on having found out new conclusions on measurable music. For me it suffices in this regard to uphold the old [conclusions], which I consider soundly reasoned. For as [the moderns] say, citing from Aristotle in the Book of Meteors, opinions and cycles of knowledge are [always] moving, for even where there is dry [earth] now, there was water before.

So what’s important here, for the issue of chronology, is that by whenever Jacobus is writing, the *ars nova* is widespread and the *ars vetus* has apparently been banished. Indeed, as I argued in a recent article ([Zayaruznaya 2020](#)) it turns out that much of the dating of the rest of the *ars nova* treatises and some motets depends on the dating of the *Speculum musicae*. I also argued that the *Speculum musicae* was likely finished a considerably later, maybe as late as c. 1350. Meanwhile Karen Desmond has shown that Muris’s *Summa* treatise was written in two parts, the second a good deal later than the first. Taken together, these findings have radically shifted the chronology. Here are the old and new versions. We’ll get to why this matters in a bit.

OLD CHRONOLOGY



NEW CHRONOLOGY



ideal significance of music as cosmic metaphor. By radically increasing the number of disparate elements that could go into its representation of harmony, moreover, the Ars Nova innovations only made the more potent the musical representation of *discordia concors*, the divine tuning of the world.

ESTABLISHING THE PROTOTYPE: THE ROMAN DE FAUVEL

That cosmological speculation was the aim, or at least the effect, of the Ars Nova project is apparent from the music that first issued from it. The earliest genre to be affected by the Ars Nova, and the most characteristic one, was—almost needless to say—the motet, already a hotbed of innovation and already the primary site of the *discordia concors*. The fourteenth-century transformation of the motet gives the clearest insight into the nature of the Ars Nova innovations and their purposes.

The earliest surviving pieces in which elements of Ars Nova notation are clearly discernable are a group of motets found in a lavish manuscript, compiled in or just after 1316, which contains an expanded and sumptuously illustrated version of a famous allegorical poem, the *Roman de Fauvel*. The poem, by Gervais du Bus, an official at the French royal court, is found in about a dozen sources, but this one, edited by another courtier, Raoul Chaillou, provided the poem with a veritable soundtrack consisting of 126 pieces of music ranging from little snippets of chant through monophonic rondeaux and ballades (the last of their kind) to “motetz à trebles et à tenures,” meaning polyphonic motets, of which there are twenty-four. These musical items are meant as appendages or illustrations to the poem, on a par with the luxuriant manuscript illuminations. They were probably meant to adorn recitations of the *Roman* at “feasts of the learned,” most likely at the home of some particularly rich and powerful “church aristocrat.” What links all the musical numbers despite their motley variety of style, genre, text-language, and date is their pertinence to the poem’s theme.

That theme is ferocious civil and political satire. The name of the title character, Fauvel, roughly meaning “little deerlike critter” who is *fau*s and *de*vel (false and furtive, “veiled”) and of dull fallow hue (*fauve*), is actually an acrostic standing for a whole medley of political vices, apparently modeled on the list of seven deadly sins (the ones that are not cognates below are translated):

- F laterie
- A varice
- U ilanie (i.e., villainy, U and V being equivalent in Latin spelling)
- V ariété (duplicity, “two-facedness”)
- E nvie
- L ascheté (laziness, indolence)

The manuscript illuminations represent Fauvel as something between a fawn and a horse or ass. Indeed, everyone “fawns” on him, from garden-variety nobles and clerics all the way to the pope and the French king. (Our expression “to curry favor” was originally “to curry favel,” meaning to coddle Fauvel and win his base boons.) Fauvel

Again, beware the divine tuning of the world. This is cosmology being brought in to make an argument about Zeitgeist (“the spirit of the times”). The link between music and the cosmos was a venerable idea in the 14th century but it is certainly not particularly salient in *ars nova* theory. Scholars often turn to Zeitgeist in order to make connections that they can’t make in other ways.

There was no “Ars Nova project.” Or rather, *ars nova* was a new way of notating musical rhythm. That was the project.

Well... not exactly “clearly”... See commentary on p. 260 below. But whatever we think “the Ars Nova project is,” let’s take a second to marvel at the *Roman de Fauvel*, which is a book finished c. 1317–20 that is about an evil horse named Fauvel. He’s an allegory for every kind of false political leader, and he has yellow hair. He’s horrible, and yet everyone pets him—from church leaders to the poor. Ring any bells?

The lavish manuscript that transmits his story is up in full color on the website Gallica, the online portal for the Bibliothèque Nationale de France. You can leaf through it [here](#). And here are some amazing pictures of Fauvel. In the book he’s a horse, but since he talks and sings and stuff, the illuminators tend to portray him as part-beast/part-human:



is practically omnipotent; his feat of placing the moon above the sun symbolized the secularism and the corruption of court and clergy. Now he wants to pay back Dame Fortune for the favors she has granted him and proposes marriage—but this, too, is a trick; once married to Fortune Fauvel will become her master as well, and truly all-powerful. Fortune refuses but gives Fauvel the hand of her daughter Vaine Gloire, through whom he populates the earth with little Fauveaux.

The motet, whose first half is transcribed as Ex. 8-1, appears in the section of the *Roman de Fauvel* manuscript containing the description (accompanied by an

EX. 8-1 Philippe de Vitry, *Tribum/Quoniam/MERITO*, mm. 1–40

Triplum
Motetus
Tenor

Tri-bum, que non ab-hor-ru-it in-de-cen-ter as-cen-de-re, fu-ri-bun-da non me-tu-num, spe-lun-ca vis-pi-li-o Merito hec patimur.

it For-tu-na ci-to ver-te-re, dum-du-ci pre-fa-num vul-pes, que Ga-los te tri-bus in sem-pi-ter-num spe-cu-ro-de-rat tem-po-re quo-re-gna-ve

EX. 8-1 (continued)

lum pa-ra-re pa-lam om-ni-rat-le-o ce-ca-tus, su-bi-bus non-pe-per-cit pa-ti-bu-to su-o ru-e-re-me-ri-lum. po-pu-lus er-go ven-tu-rus, to in

Triplum
Furious Fortune did not fear
to turn quickly against the tribe
that did not recoil from a shameless rise [to power]
when she did not spare the governing leader of the tribe
from the pillory,
to be established as an eternal public example.
Therefore let future generations know . . .

Motetus
Since with the plots of thieves and
the den of shady dealers
the fox, which gnawed at the cocks
in the time when the blind lion reigned,
has suddenly been hurled down
to his reward in death . . .

Tenor
We suffered this deservedly.

illustration; see Fig. 8-3) of the Fountain of Youth, in which Fauvel, his wife, and his entourage—Carnality, Hatred, Gluttony, Drunkenness, Pride, Hypocrisy, Sodomy, and a host of others just as attractive—bathe on the day following the wedding. (In the illustration, the bathers enter from the right, clearly aged, and emerge rejuvenated from the bath, of which the topmost decorative spouts are miniature Fauvels.)

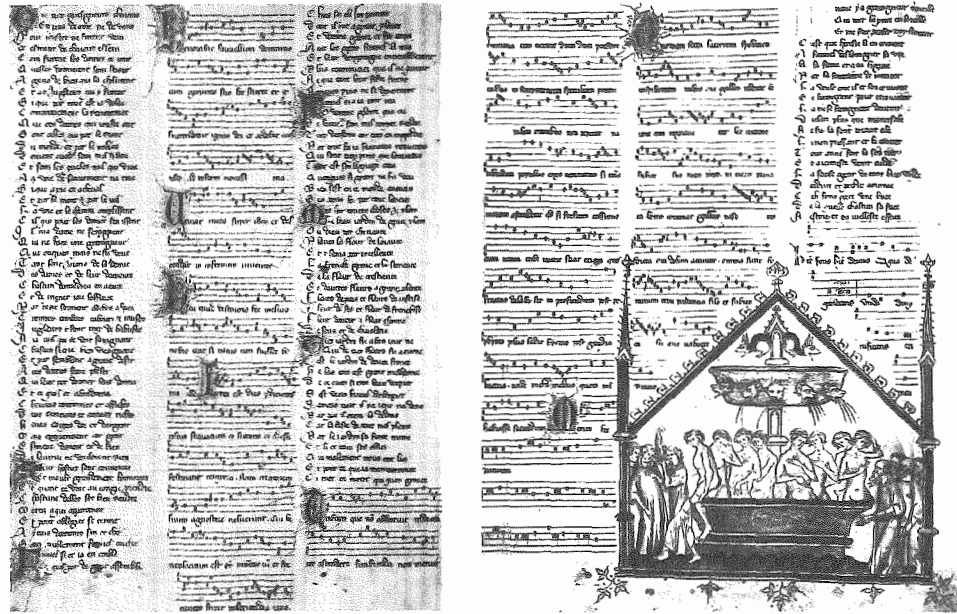


FIG. 8-3 Paris, Bibliothèque Nationale, Fonds Français 146 (*Roman de Fauvel*), fol. 41v–42, showing most of Philippe de Vitry's motet *Tribum/Quoniam/MERITO* and an allegory of the fountain of youth.

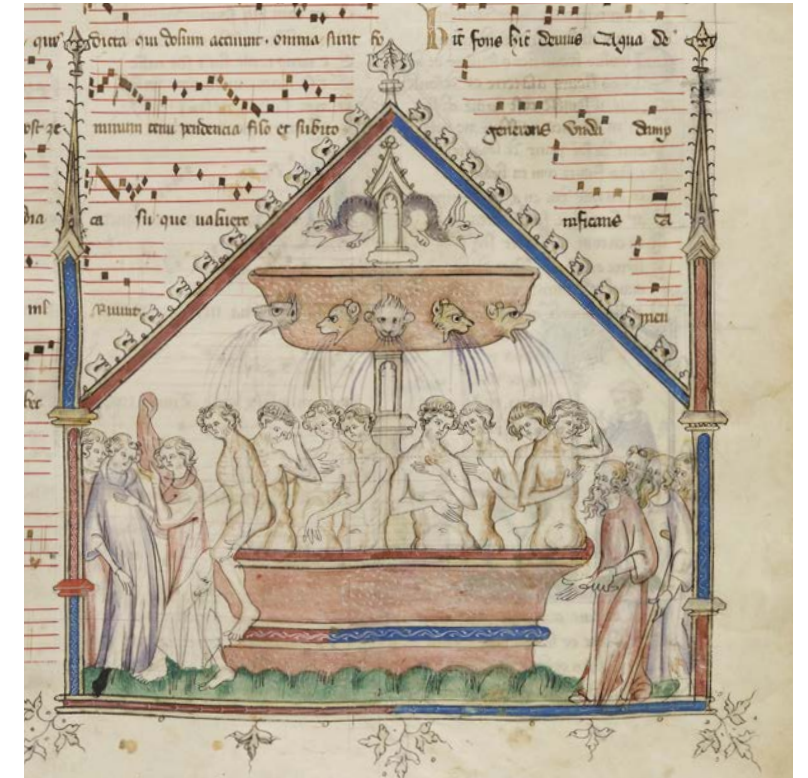
The triplum and motetus texts are laden with Fauvel-related allegories that have been associated by historians with the fate of Enguerrand de Marigny, the finance minister to King Philippe IV (Philip the Fair) of France, who was hanged following the death of the king, on 30 April 1315. His death is held up as an object lesson (*admonitio*) concerning the whims of Fortune and the dangers of concentrating political power. (The texts thus reflect the interests of the feudal nobility who opposed and sought to limit the power of the throne and forced concessions on Philip's successor Louis X.)

Because it corresponds so closely to the rhythmic and notational features soon to be set forth in the treatise *Ars Nova* (where a passage from it is actually quoted), the music of this little political tract in tones is thought to be an early work of Philippe de Vitry, who was the contemporary of Gervaise du Bus and Raoul Chaillou, and like Gervaise a court notary in his youth. With this work and the others that he composed in his twenties, Philippe established the fourteenth-century motet as a genre and provided the prototypes for a century of stylistic development. The differences between Philippe's motet and the one by Petrus de Cruce excerpted in Ex. 7-10 will virtually define the prototype.

To begin with, the text is in Latin, not French; its tone is hortatory, not confessional; and its subject is public life, not private emotion. Moralizing texts — allegories, sermons, injunctions — such as were formerly the province of conductus, would henceforth dominate the motet repertory. In keeping with the rhetorical seriousness of the texts, and to enhance it, the formal gestures of the fourteenth-century motet became more ample, more ceremonious, more dramatic than those of its progenitor.

This fountain of youth is actually a fountain of shit, or farts, or somethign of that nature. No joke. The surrounding chant refers to it as “aqua degenerans.” The world of Fauvel is topsy-turvy and features many opposites (of the type you would expect twhen the most base of creatures is raised on high). Here's what the narrator says about it:

I will tell you the truth, if God helps me,
 About the fountain, out of which
 A fog emerges every morning
 Which has completely poisoned the vegetation
 And the whole garden,
 For from the fountain a stench
 Of old sins wafts
 As a result of which I am in a great sweat,
 And which comes from the sons and daughters
 Of Fauvel who do worse than worms
 And any other bad vermin.
 There is neither seed nor root,
 Leaf nor branch nor scion
 That they do not destroy! (ll. 5792–5805)



Enough fart jokes, back we go into the weeds. There's a lot assumed in this passage, so let's break it down:

- 1) Vitry's treatise is called *Ars nova*, and the theory it transmit is *ars nova* theory. This is false on both counts. Vitry's treatise seems to have been an *Ars vetus et nova* (the *Old way and the new*) and it discusses notation of both types, *ars vetus* and *ars nova*. In fact, it helps readers convert one kind of notation into another. More on this in a page or two.
- 2) The *Ars vetus et nova* quotes a passage from this motet. This is also false, and it's false in two ways.
 - 2a) First, treatises like Vitry's didn't quote passages from things, they merely named motets in their texts, and expected their readers to know the works they were talking about. This implies a circle of readers familiar with the repertory.
 - 2b) Vitry's treatise (or the parts of it we can reconstruct—that's a bit of a mess) doesn't cite this motet. A later treatise (a treatise we call *Compendium totius artis motetorum*, c. 1340–50) does. What it says is “an example of imperfect tempus, minor prolation is in the motet *Quoniam secta latronum*.” You might notice that Taruskin transcribes this motet in major proation, as do several later 14th-c. sources. I don't know how to make all those facts come together neatly, sorry.
- 3) Vitry pioneered the *ars nova* style, so motets in that style are more likely to be by him, especially if he also cites them in his treatises. As we will see, the earliest of Vitry's works are notated using what he would have called *ars vetus*. And there is no evidence that he cited only his own works in his treatise.

I wrote an entire book arguing against this notion. (No joke. [Zayaruznaya 2018: Upper-Voice Structures and Compositional Process in the Ars nova Motet](#)) Why might I care, you ask? Because it's a claim that manages to yoke together compositional process, power hierarchies between the sacred and the secular, and questions of what motets might have meant to their medieval composers and audiences.

Weak argumentation here. We have no idea if it was meant to be recognized. But note how the emphasis on hidden meaning goes hand in hand with the evocation of an elite audience. Are you excited by the idea of listening to something written for the "edification or solemn entertainment" of "elite initiates"? These were people. They sometimes had fun. I think it's important to keep this in mind.

Whereas thirteenth-century motets, like the discant clausulae on which they were generically based, began with all the voices together, the fourteenth-century motet tended to dramatize the tenor entrance. In *Tribum/Quoniam/MERITO* (Ex. 8-1), the voices enter one by one (*seriatim*), with the tenor last. The introductory section preceding the tenor entrance became so standardized that it was given a name, one with which we are familiar in another context: it was called the *introitus*, suggesting that the entering voices formed a procession. And just as in the case of the "introit" procession at the beginning of Mass, the most important participant (the celebrant, the tenor) enters last.

The tenor is the most important voice in the motet—the dignior pars, to quote one theorist, the "worthiest part"—because it is literally the "fundamental" voice.⁵ In fourteenth-century motets it is chosen with care to reflect its liturgical dignity on the texted parts, although the fourteenth-century motet, even when in Latin, was by no means a liturgical genre. All of this is just the opposite of the situation that obtained in the early days of the motet, when such works were clausula-derived and performed in church. In the oldest motets—"prosulated clausulae," as we called them on their first appearance—the motetus and triplum texts were ancillary glosses on the tenor in the course of an ongoing liturgical performance of the item from which the tenor was drawn. Now it is the tenor that is chosen to support and gloss the orations up above. As the theorist Aegidius of Murino put it around 1400 in a famous motet recipe, "first take for your tenor any antiphon or responsory or any other chant from the book of Office chants, and its words should accord with the theme or occasion for which the motet is being made."⁶ In Ex. 8-1, the tenor is drawn from the beginning of a matins responsory that is sung during Lent, the most penitential season. Its implied words—*Merito hec patimur* ("It is right that we suffered thus")—are plainly an extra comment on just desserts, and amplify the censorious allegories running above on the fate of corrupt politicians. The fact that the tenor is not a melisma from the chant but its incipit shows that it was probably meant to be recognized, at least (or at best) by the elite initiates for whose edification or solemn entertainment the motet was composed.

One final point of comparison: Whereas the tenor in Ex. 7-10, our "Petronian" motet, was allowed to "degenerate" into an undifferentiated sequence of longs during its second cursus, the tenor in the "Vitrian" motet maintains a strong, preplanned rhythmic profile from beginning to end. (As Aegidius instructs, "then take your tenor and arrange it and put it in rhythm" as a first composing step.) The tenor in Ex. 8-1 is cast in easily recognizable (even if slowed down) "second mode" or iambic *ordines*.

In the thirteenth century, its constituent note-values would have been breves and longs arranged *BLB(rest)*. Here, the note-values have been doubled in keeping with the increased rhythmic ambit of the Ars Nova style, so that the ordines are not "modal" but "maximodal," proceeding in longs and maximas. In the transcription, the tenor is barred according to the maximodus, with one measure equaling the perfect maxima. The upper parts are barred according to the modus, with one measure equaling the long. As one can see from the time signatures employed, the modus level here is imperfect, with the long (represented in transcription by the half note) divided equally into two breves

Right. The 14th-century motet was not a liturgical genre. Some of them were on sacred topics, usually with an intellectual bent (like *Tuba/In arboris*, discussed below) some performed political criticism (like *Tribum/Quoniam*), some were about love, or music (like *Musicalis/Sciencie*, discussed below). The upper voices of these motets are densely and interestingly texted. The tenors, meanwhile, are almost never texted, and only sometimes provided with a textual tag that indicates the origins of the borrowed chant. So what does it mean to argue that one of the voices—the "most important" one—"reflects its liturgical dignity" upon the others? What kind of power structure does that imply? It is very easy to go from here to a sacrilizing idea of the Middle Ages in which we privilege symbolic meanings over stated ones, turning everything secular into something sacred. And the nature of spiritual interpretations is that they can never be disproven.

Time for some Latin! Murino gives his reader the following selection criterion for a tenor:

take a tenor from some antiphon or responsory, or another chant from the antiphoner, and the words [of the tenor snippet] should be suited to the materials [*et debent verba concordare cum materia*] out of which you wish to construct the motet.

What Taruksin translates here as "theme or occasion" is actually the word "materia." This can mean substance, topic, subject matter, or even "the texts." Murino never tells his reader to write them and yet assumes their existence later in his treatise. Like a cook reading a recipe from the middle, after the ingredients have already been measured out, the student-composer reading Murino's instructions doesn't know where these upper-voice texts are to be gotten, or what has been done to them before this—she is simply instructed to "take the words that are to be in the motet and divide them into four parts." So actually the words might well have been written first. And because the musical forms of motets as defined by their isorhythmic schemes often follow the forms of their texts, it seems likely that at least in some cases an entire motet was planned out before a tenor was chosen. So much for "the most important voice."

(quarters). The mensuration of the breve (i.e., the tempus) is also imperfect, with the breve dividing equally into two semibreves (eighths).

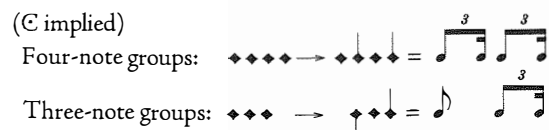
TAKING A CLOSER LOOK

Comparing the notation of this motet as shown in Fig. 8-3, not only with later sources but with subsequent additions to the Fauvel manuscript itself, reveals the way in which Ars Nova notation emerged out of the Petronian style—a fascinating historical moment. The Fauvel manuscript is slightly earlier than the treatise of Jehan des Murs, in which the notation of the minim is introduced. In it, therefore, the level of prolation can be only indistinctly differentiated from that of tempus.

Looking closely at Fig. 8-3, in which the triplum part (*Tribum*, etc.) begins at the bottom of the third column of the left-hand page, one observes that the group of four notes over the syllable *que*, and the pair of notes immediately following, are both notated in semibreve-lozenges, even though both groups take the time of a breve. As in the Petronian motet, the breve units are marked off by “division dots” (*puncta divisionis*), there being no explicit way of showing by their shapes that the lozenges or diamonds in the first group are only half the length of those in the second. Nor can one distinguish the relative lengths of the notes in three-semibreve groups like the one on the triplum’s second staff (over the syllable *-bun-*), in which (as the transcription reveals) each note has a different length.

In a hand too faint to be discerned in Fig. 8-3, an editor familiar with the new notational principles has gone over both the triplum and the motetus and added the minim-stems that not only distinguish levels of mensuration but distinguish the Ars Nova style from its predecessors. In the four-note groups, the second and fourth are given upward minim-stems, producing lilting trochaic triplet-patterns as shown in the transcription, thus defining the level of prolation as perfect or “major” (that is, triple). The implied time signature is C. In the three-note groups, the first note is given a tiny downward stem, showing that it is a perfect (or major) semibreve, while the last is given an upward stem, turning it into a minim, leaving the time of an imperfect semibreve for the stemless note (see Ex. 8-2a). The perfectly practicable alternative, within the Ars Nova system, would have been to place stems on all the notes in the four-note group, and on the second and third in the three-note groups. This would have indicated imperfect or “minor” (that is, duple) prolation, implying the time-signature C (see Ex. 8-2b).

EX. 8-2 The two alternatives and their equivalents in modern notation
a. Major prolation



Nope! Incorrect. He hasn't! There's no hand. You see it reproduced above at pretty high resolution, and if you want, you can zoom way in on the Gallica website ([left side of opening](#)—triplum voice starts bottom left; [right side of opening](#)—triplum voice starts top middle). Neither the triplum nor motetus of this motet has been subject to the alleged updating.

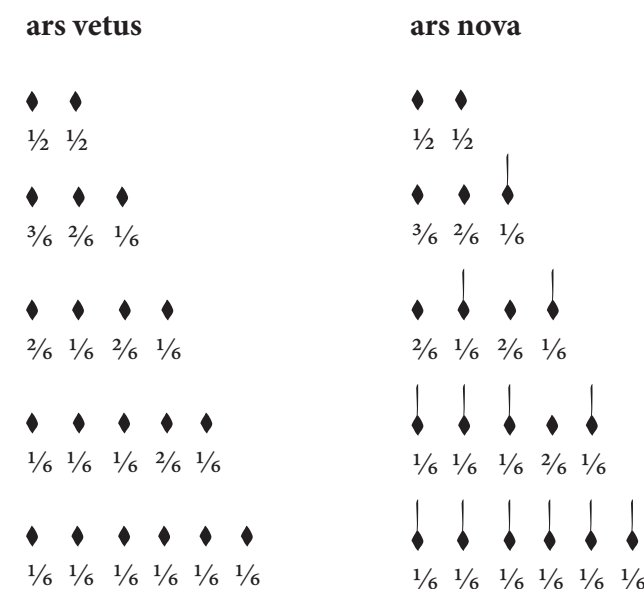
So what's going on? Maybe Taruskin is thinking of an instance on the first page of the manuscript where indeed a later hand seems to have added some smudgy up-stems to a few semibreves in a copy of a 13th-c. *conductus*. It only happens about five times, and here are four of them:



That is a far cry from the systematic modernizing implied by this description. What's up? It turns out that there is a historiographic problem at the core of this error. I'm currently writing a few book chapters about it. I'll try to keep this short.

not entirely sure what “perfectly practicable alternative” means... this would encode different rhythms

As Taruskin *correctly* says, it's minim stems that distinguish the *ars nova* from the *ars vetus*. That's what the surviving (revised) copies of the *Ars vetus et nova* treatise attributed to Vitry tell us. Here are the two systems they describe, as used to notate music that divides the breve into two equal semibreves (imperfect tempus) and each of these semibreves into three smaller notes (what would eventually be called “major prolation”):



In *Fauvel*, the motet *Tribum/Quoniam* does not have any stemmed minims in it. It is notated in the lefthand style. Elsewhere, in a manuscript from maybe 1335, this same motet does get notated with minims. Here's how that looks:



(continued on the next page...)

In fact, no motets in *Fauvel* have any minims. Which is to say that no motets in Fauvel are notated according to *ars nova* (“the new way”). But, you might object, isn’t the *Roman de Fauvel* a monument of the *ars nova*? Isn’t it at the center of the Ars Nova Project? What’s it doing in this chapter if it’s not *ars nova*?

Well... remember the chronological stuff? It used to be thought that *ars nova* theory was mostly written in the late 13-teens and ‘20s, and was old hat by about 1330. Philippe de Vitry was associated—during his time and still in ours—with the development of *ars nova*. Some of the motets he probably cited in his treatise are *Fauvel* motets. And *Fauvel* is from c. 1317. So that makes the *Roman de Fauvel* attractive because it becomes a monument of the nascent *ars nova* and an early repository of works by Vitry, who in turn is a Great Composer whose works represent an *ars nova* as “New Art” and radical break from the past. The problem that the *Roman de Fauvel* doesn’t actually use the new notation was solved by giving “ars nova” a new, much broader meaning (viz. The Ars Nova Project). The idea that radical politics, notational change, and formal advances in composition (see the discussion of “isorhythm”) all coalesced around 1320 was attractive to scholars, and that’s where we get the notion that “the technology-minded theorists of the ‘Ars Nova’ represented the first self-conscious avant garde faction in European literate music” (p. 254 above). It’s a really cool story.

And it would be great if things were so clear cut... if there were a thing called “The Ars Nova” and it was all progressive things to all rational people: a notational revolution, an advance in mathematics, an act of sounding cosmology and social critique... all that and an amazing manuscript about an evil horse. But sometimes stories are so powerful that we bend things to make them work—or even start seeing lines where there are none. My work and that of several colleagues, especially Karen Desmond’s at Brandeis, suggests that this story of *ars nova* needs to be revised. The *Roman de Fauvel* is amazing and its notation is what Vitry would have described as *ars vetus*. The formal innovations of its motets preceded the notational innovations that Vitry would later call *ars nova*. In his own work, Vitry first used an older notational system and then switched to an *ars nova*. I believe that he was not the system’s inventor, but an influential early adopter.

Meanwhile, the revised chronology shows that it took decades for the new notational style to be universally accepted. And while it might initially seem like a story of gradual change is boring compared to the one about the Revolution of 1317, the more expansive chronology also shows us that the system *developed* gradually. That is: far from being fully implicit in Muris’s *Summa*, the “four prolations” as defined here emerged gradually and in different ways. And this makes sense, if we remember that these are people writing and singing music, that there is no notational police, and no centralized system of music education for the composition of polyphony. In some cases, it seems to have been practice leading the way, and theory scrambling to catch up. In others, theory “got there” first but practically speaking there was relatively little interest in exploring the new theoretical options. As already noted, the even division of the semibreve—minor prolation—was vastly under-used compared to major prolation, even when it was clear to everyone how to notate in both ways.

While we may look at the past and pity its denizens for their lack of various kinds of technologies, let us remember that they no more felt limited by what they didn’t have yet than we do ourselves. Questions about why and how encoding systems change to accommodate their users, and are changed in turn by those users, are interesting and timely. And these are the kinds of question that we can begin to ask once we let go of The Ars Nova Project.

A close reading of the theory suggests to me that the term *color* actually meant rhythmic repetition in the upper voices. And “coloring” meant decorating, or embellishing. The gloss here is off because Taruskin is using *color* to stand in for the tenor pitches. That was the accepted terminology. I think it’s not quite right, and leads to misunderstandings like this.

EX. 8-2B Minor prolation



The “French” preference shown here for the lilting “trochaic” subdivision of the semibreve (implying that the four-lozenge groups would have been lilted that way even before the stems were added) seems to resonate both with earlier “modal” practice and with the later French convention of performing pairs of eighth-notes or sixteenth-notes with a similar, and now definitely unwritten, lilt (the so-called *notes inégales* or “unequal notes”). That practice is documented only for the seventeenth and eighteenth centuries, but it perhaps reflects a more widespread custom affecting unwritten repertoires as well as written ones (compare the lilt in Viennese waltzes — or in jazz.)

MORE ELABORATE PATTERNING

In keeping with the idea of *discordia concors*, which emphasized belief in a hidden order and unity behind the world’s apparent chaos, composers of Ars Nova motets placed particular emphasis on subtle patterning that unified and reconditedly organized the heterogeneous surface of their work. One can bring this aspect of *Tribum/Quoniam/MERITO* to light by comparing mm. 10–13 in the transcription with mm. 34–37. The repetition thus uncovered initiates an interlocking series of periodicities that crosscut the more obvious periodicity of the tenor. The same melodic phrases in the triplum and duplum will turn up again in mm. 58–62, and the triplum-duplum combination in mm. 22–25 will recur in mm. 46–49 and again in mm. 70–73. Every one of these spots corresponds to a progression in the tenor from E to D, which crosscuts the tenor’s more obviously repeating rhythmic ordo or *talea* (since in every case the E is the end of an ordo and the D is the beginning of another). And the thrice-recurring pair of alternating repetitions in the upper voices — mm. 10–13/22–25, 34–37/46–49 and 58–62/70–73 (ABABAB) — crosscut the tenor’s double cursus, which begins right between the members of the middle pair (just after our example breaks off). This is an especially significant hidden periodicity, for it imposes on the structure of the motet at its most encompassing level a “perfect/imperfect” duality (three repeated pairs vs. two tenor *cursus*) that reflects the duality of note-value relationships at the heart of the Ars Nova system.

That duality is “thematized” — made the subject of demonstration — in a later motet by Vitry, *Tuba sacre/In Arboris/VIRGO SUM* (Fig. 8-4; Ex. 8-3), which displays with a special elegance the peculiar, highly persuasive combination of seriousness and playfulness that was so characteristic of the Ars Nova.

Here the tenor consists of a chant fragment (*color*) bearing the incipit *Virgo sum*, (“I am a virgin”), a verse that figures meekness and purity, supporting (and “coloring,” in the sense of commenting on) a pair of solemn meditations in the triplum and motetus

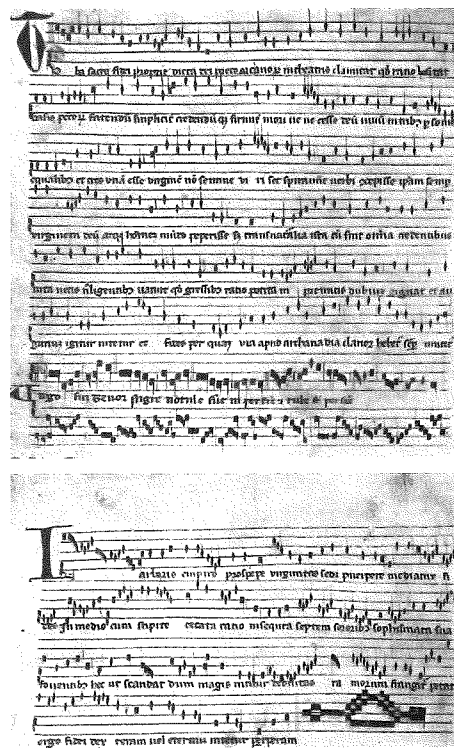


FIG. 8-4 Philippe de Vitry, *Tuba sacre/In arboris/VIRGO SUM* (Ivrea, Biblioteca Capitolare, MS 115, fols. 15v–16). The tenor notes that appear gray are notated in red ink to show a hemiola (3:2) proportion.

melisma that launches the *introitus* to this very high-minded motet. And no less emphatically sweet are the harmonies at strategic moments. Note the long-sustained full triads (the first we've seen) at tenor entrances and cadences such as mm. 16, 25, 43, and 46. Also self-evidently playful are the hockets between the triplum and the motetus that regularly recur at the ends of taleae. A motet with such prominent hockets (to recall a comment by Johannes de Grocheio) is at once high-minded and hot-tempered. Entertainment values are unabashedly summoned to assist lofty contemplation.

As for the tenor, its rhythms are cast in no simple modal ordo, but in an arbitrary arrangement of values adding up to 24 breves, as follows (a number in italics indicates a rest): 4 2 2 2 2 3 2 1 2 4. Note the odd number in the middle. The composer might have indicated that one perfect long within a prevailing duple modus by simply dotting it—as we still do, even if we do not know that we are following the method introduced by the *Ars Nova* for converting imperfect values into perfect ones. Another way of indicating the perfect long would have been by applying to it an explicit mensuration sign. The way that Vitry actually did it was playfully ostentatious. He supplied the tenor with a supplementary performance direction—called a *rubric* (after the red ink in which such things were often entered) or a *canon*, meaning “rule”—that reads,

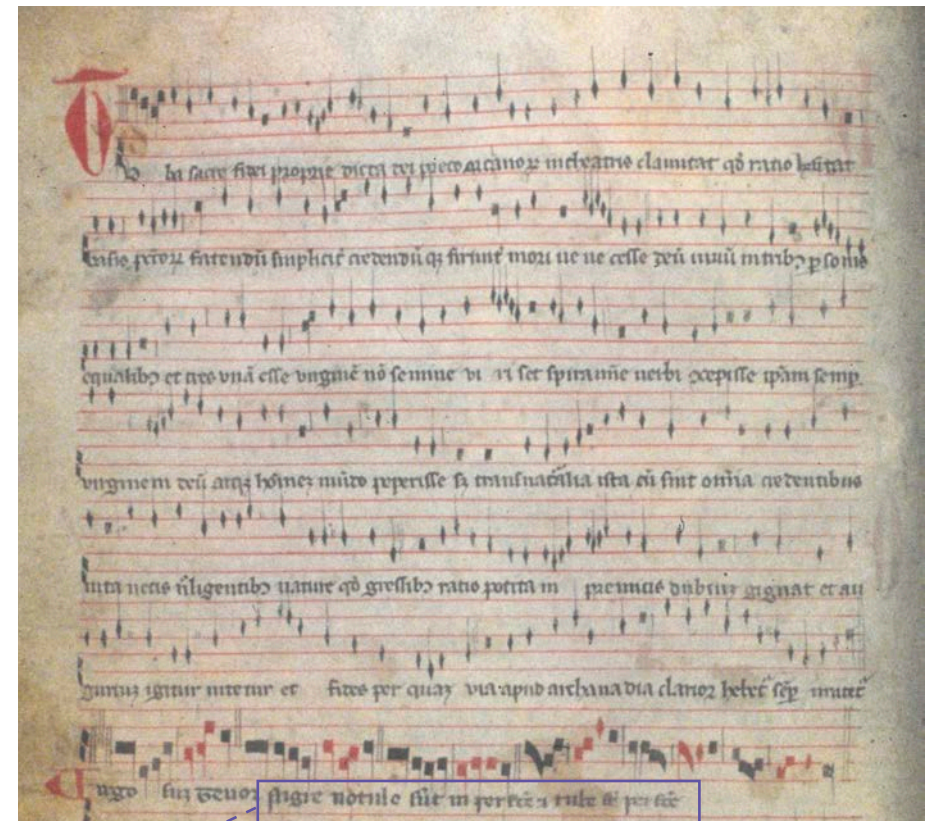
concerning the mysteries of Christian doctrine and the necessity of reconciling faith with reason. These earnest sermons, for all their gravity, are nevertheless cast in graceful melodies full of the characteristic “prolation lilt” that we encountered in the previous motet as well, and that must reflect the style of the contemporary song repertory. (Vitry is known to have composed French songs in addition to Latin motets, but neither they nor any other French songs survive from the period of his main activity.) Also songlike are the mode and the harmonic idiom. Up to the final cadence in each cursus—which comes as a harmonic surprise—the tunes in the upper parts depart from and cadence on the note C, so that they are in the functional equivalent of our major mode. As Giraldus Cambrensis (quoted in chapter 5) remarked at the end of the twelfth century, that mode was used in unwritten musics far more prevalently than in chant-influenced literate ones. There is no better example of Vitrian C-major “pop-lyricism” than the unaccompanied motetus

That's right! Keep this in mind for a page.

Ah yes, that Vitrian (I prefer “Vitriacan”) C-major “pop-lyricism”... ?!

Whom are you quoting? And why isn't “C-major” in scare quotes, if we're going to start throwing things into scare quotes? It's worth noting that this pop motet survives in exactly one source—a miracle that it survives at all, given how weird it is, notationally and textually. This is a thoroughly nerdy piece that stages a debate between Faith and Reason, and takes the doctrinally accepted view that without Faith, Reason is bound to fail.

Triplum



Tenor

Motetus



EX. 8-3 Philippe de Vitry, *Tuba sacre/In Arboris/VIRGO SUM*

Triplum
Motetus
Tenor

Tu
In ar-bo-
ba sa-cre fi-de-i pro-pri-e di-cta de-
ris em-pi-ro pro-spe-re
Libera me, domine.
i pre-co ar-ca-no-rum in the-a-tris cla-mi-tat quod ra-ti-o he-si-
vir-gi-ni-tas se-det pu-er-pe-
tat ba-sis pec-ca-to-rum fa-ten-dum sim-pli-ci-ter cre-den-dum que fir-mi-
re me-di-a-trix fi-des In
ter mo-ri-ve ne-ces-se de-um u-num in tri-bus per-so-nis e-qua-li-
me-di-o cum sti-pi-te ce-ca-ta ra-ti-

EX. 8-3 (continued)

25
bus et tres u-nam es-se vir-gi-nem non se-mi-ne vi-ri-
o in-se-cu-ta sep-tem so-ro-
31
set spi-ra-mi-ne ver-bi con-ce-pis-se ip-sem sem-per vir-gi-nem de-um at-que ho-mi-
ri-bus so-phis-ma-ta su-a fo-ven-ti-
37
nem mun-do pe-pe-ris-se sed trans-na-tu-ra-li-a i-sta cum sint om-ni-
bus hec ut scan-dat dum
43
a cre-den-ti-bus vi-ta ne-cis ne-gli-gen-ti-bus na-tu-re quod gres-si-
ma-gis ni-ti-tur
46
bus ra-ti-o po-ti-ta in pre-mis-sis du-bi-um gi-gnat et au-
de-bi-li-tas ra-mo-rum fran-gi-tur

EX. 8-3 (continued)

49
 gu - ri - um i - gi - tur ni - te - tur et fi - des per quam vi - a a - pud ar - cha - na di -
 Pe - tat er - go - fi - de - i dex - te - ram
 a cla - ri - or ha - be - tor sem - per i - mi - te - tur.
 vel e - ter - num - ni - te - tur - per - pe - ram.

Triplum

The trumpet of the sacred faith, God's own statement, herald of sacred mysteries cries out in the theater that Reason hesitates, in support of the sinners. More simply stated, one has to acknowledge and believe more firmly (or otherwise die) that God is necessarily in three equal persons, and that these three are one; that a virgin, not by the seed of man but by the spirit of the Word, has conceived while remaining ever a virgin; that both God and Man for the world have suffered. But since all these transcendental things are the very life of the believer, unaware and neglecting, Reason, naturally acquired in steps, produces doubts and guesswork as it proceeds. Faith, through which one can find a clearer road to the Beyond, one should always follow.

Motetus

On the top of the tree, flourishing, virginity presides, bearing a child. In the middle, Faith assists her in her labour while obscured by the trunk, Reason, followed by the seven sisters cherishing their *sophismata*, struggles to mount; the weakness of the branches causes her to crash. Therefore, one should either ask for the right hand of faith, or forever strive in vain.

Tenor

Free me, O Lord.

Nigre notule sunt imperfecte et rube sunt perfecte ("The little black notes are imperfect and the red ones are perfect"). Like so many of Philippe de Vitry's innovations, this one became standard practice. As a later theorist wrote, "red notes are placed in motets for three reasons, that is, when they are to be sung in some other mode, or other tempus, or other prolation than the black notes, as appears in many motets composed by Philippe."⁷

In every *talea*, then, six breves' worth of musical time is organized by perfect longs (that is, in "perfect minor modus"), requiring the use of red ink. It is here, of course, at the tenor's friskiest moment, that the hockets appear in the texted parts. Their rhythms, like the rhythm of the tenor, are the same each time. After three *talea*, the note values are halved to coincide with the second cursus of the *color*, so that

Actually, it's the opposite of what became standard practice. What became standard was that black notes would be perfect, and red imperfect. There are sound (if boring because very technical) notational reasons why you would need a tool to switch from triple to duple in this way. But for moving from imperfect to perfect this is overkill. Taruskin is right when he says on p. 262 that Vitry could just have put a dot on one of his notes.

The whole motet is a celebration of the irrational. Reason needs the help of Faith to climb up the tree. The tenor's "virgo sum" is taken from a long litany of miraculous contradictions attributed to 3rd-century virgin-martyr St. Agnes:

I love Christ... whose mother is a virgin, whose father does not know a woman... whom when I shall have loved, I am chaste; when I shall have touched, I am clean; whom when I shall have let in, I am a virgin [virgo sum].

So maybe this notation is actually intentionally irrational. Maybe that's why we need instructions. Maybe notation was a playground during the formation of *ars nova*, and maybe motets like tried brave new things. Maybe that's one way that notation changes?

Also here you can see what Murino means by "concordare cum materia." What a great tenor for these upper voices.

the tenor proceeds twice as “fast,” and the red notes denote six semibreves’ worth of time organized in perfect tempus. The frisky tempus shift becomes much friskier, since the perfect breve that now begins the red-ink patch crosscuts the basic tempus unit, producing a true syncopation—something that had never before been possible in notated music. Needless to say, the hockets in the upper parts get friskier, too; and again these puckish rhythms reappear each time the tenor syncopation returns. This passage introduces what was a permanent stylistic acquisition for fourteenth- and fifteenth-century music. “Coloration” (the use of a contrasting ink color, or, later, the filling in of notes ordinarily left “white”) became a standard way of changing tempus in midstream to produce fascinating rhythms.

ISORHYTHM

The playful complexity of this tenor — an arbitrary (that is, “rational”) talea that mixes mensurations and undergoes diminution by half—became a typical, even a defining feature of motets in the fourteenth century and beyond. Modern scholars use the term *isorhythm* (“same-rhythm”) to denote the use of recurrent patterns or *taleae*, often quite long and cunningly constructed, that do not rely on traditional modal *ordines*. Motets that employ such recurrent patterns—often, as here, varied schematically on successive *colores*, or even within a *color*—are called isorhythmic motets. Despite the Greek derivation of the term, it is a modern coinage and a German one, first used by the great medievalist Friedrich Ludwig in 1904 in a pioneering study of the motets in the Montpellier Codex.

The first piece to which the term was applied, as it happens, was *On a parole/A Paris/Frese nouvele*, familiar to us from the previous chapter (Fig. 7-9/Ex. 7-9). Yet according to current standard usage, that motet is not isorhythmic; the motetus, which Ludwig mainly had in mind, moves in phrases that are rhythmically similar but not identical, and in the tenor the color and the talea are coextensive, amounting to a simple melodic repetition. As currently used, the term isorhythm implies literal rhythmic repetition that, while often coordinated with melodic repetition (chiefly in tenors), is nevertheless independently organized.

A true isorhythmic tenor, like the one in Ex. 8-3, is built on two periodic cycles, the one governing pitch, the other duration. And this implies the separate, hence abstract, conception of melodic and rhythmic successions. The passages of tenor-coloration in this motet by Vitry are accompanied, as we have seen, by rhythmic recurrences in the upper parts as well, so that this particular isorhythmic motet has patches of “pan-isorhythm,” in which all the voices are bound periodically (which of course means predictably) into recurrent patterns to which the ear cannot help looking forward.

Thus isorhythm and its attendant effects have at once an embellishing and a symbolic purpose. They enhance surface attractiveness, particularly when smaller note-values and hockets are called into play. At the same time the periodicities thus set in motion reflect the periodicities of nature (celestial orbits, tides, seasons), giving the senses—and, through the senses, the mind—an intimation of the ineffable *musica mundana*. The coordination of surface and deeper structure that this motet so well

We know we’re somewhere weird when “arbitrary” is glossed as “rational”... (the first dictionary definition I get for “arbitrary” is “based on random choice or personal whim, rather than any reason or system”). Behold the weird interpretive places that historiographic accidents can take you.

Do the periodicities of sonata form set reflections of *musica mundana* in motion too? Look how we have first decided that these are nerds and then prove that their music is nerdy. There’s no way to disprove associations like this. But there is a way to tell the story of the rhythmic repetitions that feature in “isorhythmic” motets that has nothing to do with the ineffable music of the spheres, and is all about musicians making musical structures for any number of pragmatic and aesthetic reasons.

exemplifies, and their conjoint appeal to sense and reason, may all be subsumed under the heading of *rhetoric* — the art of (musical) persuasion. That was the all-encompassing aim to which every detail of the ceremonious late-medieval motet was geared, whether at the level of grandiose architecture or that of seductive detail. That rhetoric found its most eloquent expression in motets of doctrinal, civic, or political cast.

MUSIC ABOUT MUSIC

Before turning to the most exalted specimens, however, let us have another look at the playful side of Ars Nova composition, for it will cast light on the earliest emergence within musical practice of “art” as we know it. Art, as we know it, is a self-conscious thing, as concerned with manner as it is with matter. Its Latin cognate, *ars* (as in Ars Nova) simply means “method” or “way.” The title of the treatise attributed to Vitry simply means “a new way [of doing things].” That is the sense of “art” that is implied by words like “artful” and “artificial.” They mean “full of method,” hence “full of skill,” and ultimately “full of style.” What makes an *artist*, in the familiar, current sense of the word, therefore, is high consciousness of style.

The earliest musical compositions that seem to exhibit this sort of awareness on the part of their makers emerge out of the Ars Nova milieu. In the previous chapter we observed deliberate compositional *tour de force*, to be sure, and we have been observing high artistry (in the sense of high technical prowess and rhetorical eloquence) since the very beginning. But nowhere yet have we observed the kind of self-regard exemplified in Ex. 8-4, which shows the end of an anonymous motet roughly contemporary with the works of Vitry that we have been examining.

It is found in a *rotulus*, a scroll-manuscript from about 1325. Little scrolls of this kind, of which very few survive, were the sort of manuscripts from which the proudly literate singers of motets actually performed, as opposed to the lavish codices, the illuminated presentation manuscripts, that preserve most of what we call our “practical” source material (to distinguish it from “theoretical” sources like treatises). In their day such codices were not practical sources at all, but items of wealth to be stored away — which is why we have them now. *Rotuli*, meant for use, were used up.

In terms of dimensions and complexity of structure, *Musicalis Scientia/Scienze Laudabili* is a fairly modest motet. It has no *introitus*. The tenor, which enters immediately, is the Christmas Alleluia, *Dies sanctificatus* (“A hal-
lowed day has dawned for us”), one of the most famous of all Gregorian chants, which may be why the composer or the scribe did not bother, in this unassuming practical source,



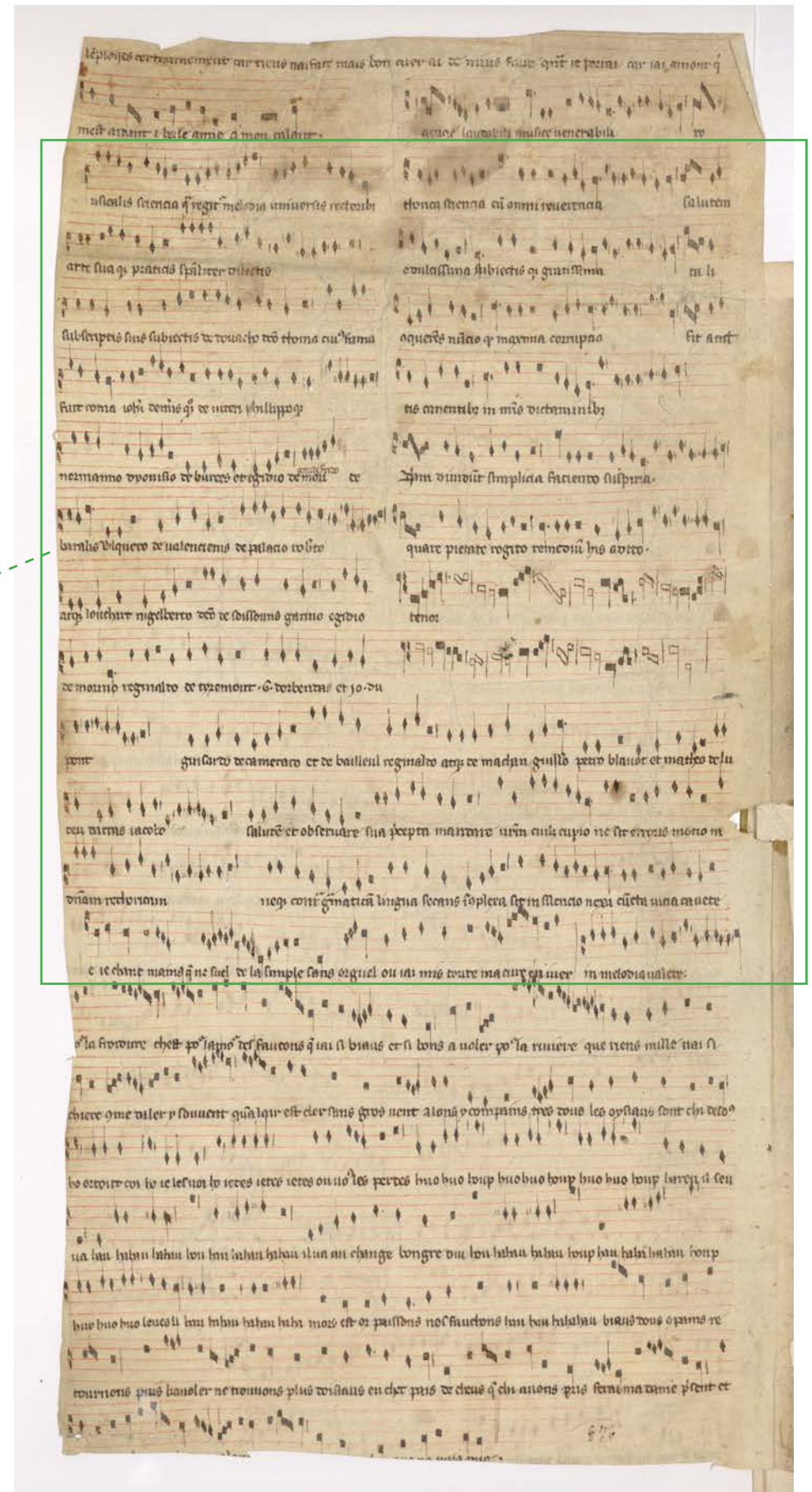
FIG. 8-5 Lorenzo d’Alessandro, *Musical Angels*, a wall painting from the church of Santa Maria di Piazza, Sarnano, Italy. The angel at right is reading from a *rotulus*, or scroll manuscript of the kind used by singers in actual performance during the late Middle Ages.

now you tell us

about 1350; here it is. Preserved because someone used it to stabilize a binding.

Actually we don’t know which Alleluia it is, because there are a bunch of Alleluias that have this same melody. Maybe the best semantic match is the *Alleluia Hic est discipulus*, with the words “This is that disciple who giveth testimony of these things, and hath written these things; and we know that his testimony is true.”

Note how the absence of a scribal label on the tenor is interpreted here as evidence for how well known this tenor was, in service of the bigger argument about the importance of tenors and their sources. But you could make the opposite argument—that if it had been really important to indicate which Alleluia the tenor was borrowed from, the scribe would have bothered to write something.



EX. 8-4 *Musicalis Scientia/Science Laudabili*, mm. 121–67 (Paris, BN, Coll. de Picardie 67, f. 67')

EX. 8-4 (continued)

to identify it. It is laid out in a single incomplete cursus, so that there is no *color* repetition. There is plenty of *talea* repetition, though: seven in all, of which Ex. 8-4 contains the last two. The syncopation at the end of each *talea* is produced, like the tenor syncopation in the previous example, by the use of red ink: the final maxima and long are counted in “imperfect mode.” A second glance shows that the triplum and motetus voices are likewise governed by an eight-bar *talea*, so that the entire piece is “pan-isorhythmic” in seven rhythmically identical sections or strophes. Each of these strophes ends with a sort of *cauda* consisting of a melisma on the last syllable, which is held through an especially blithesome—and because of the melisma, an especially hiccupy—bunch of hockets, in which the singers have to emit single minims on open vowel sounds, without any consonants to assist in articulation. The line between virtuosity and clownishness can be a fine one.

Here are the triplum and motetus texts, abridged to eliminate a lengthy honor-roll of famous musicians:

Triplum: The science of music sends greetings to her beloved disciples. I desire each one of you to observe the rules and not to offend against rhetoric or grammar by dividing indivisible syllables. Avoid all faults. Farewell in melody.

Actually it's hollow notes in black ink (see reproduction on previous page). This source is too scrappy for fancy colors.

But the “honor-roll” is one of the most interesting things about the motet! It's given as the list of addressees to whom Music writes her letter, identified in the aggregate as Music's “beloved disciples.” So it's a group of musicians identifying themselves as such. Here's how the list fits into the Triplum text:

The science of Music,
by whom melody is ruled
to all the masters
and those practiced in her art,
especially her beloved
disciples listed below—

to Thomas of Douach, famous
in Rome, and also to Johannes
de Muris, to Philippe de Vitry, to
Norman Dionisis of Bruges, to
gidio Goffredo de Baralis, to Valque-
ro de Valenciennis, to Roberto de
Palacio and to Ingelberto Louchart,
to Garin of Soissons, to Egidius de
Morino, to Reginald of Tyremont,
to G. d'Orbendas and Jo. du Pont,
to Guisardo de Cameraco Regi-
nald to Bailleul, and to Guillaume
de de Machaut; to Petrus Blavot
et Matheo de Luceu, to Jacobo of
Arras—

[sends] greetings,
and I desire each of you
to heed her your lessons...

Motetus: Rhetoric sends greetings to learned Music, but complains that many singers make faults in her compositions by dividing simple vowels and making hockets; therefore I request that you remedy this.

Every one of the “faults” for which singers are berated by Music and by Rhetoric are flagrantly committed by the composer. The piece is a kind of satire. But such satire requires an attitude of ironic detachment, a consciousness of art as artifice, and a wish to make that artifice the principal focus of attention. These are traits we normally (and perhaps self-importantly) ascribe to the “modern” temperament, not the “medieval” one. Only we (we tend to think), with our modern notions of psychology and our modern sense of “self,” are capable of self-reflection. Only we, in short, can be “artists” as opposed to “craftsmen.” Not so.

Not so! Wrong! The “fault” that singers are instructed to avoid is specifically the splitting-up of words during hockets. This is the context in which “simplicia” (words, not “vowels”) get split up. Rhetoric complains that “the greatest corruption is committed by many singers in our writing, for they divide words by making sighs.” “Sighs” are rests—*soupir* is still the French word for a quarter-note rest. So basically, the fault being discussed here is putting rests in the middle of words, as happened sometimes when text got set to hockets.

But it doesn’t happen in this motet! If we look back at the rotulus, we can actually see the text-free zones that accompany the hockets. They are even vertically lined-up, letting us see the isorhythm at a glance (This is very unusual, and speaks to the closeness of this source to the composer of the motet. Sometimes the scrappiest sources are the most accurate.)

Do we need to attribute a sense of ironic detachment to these musicians in order to believe them capable of self-reflection? Or is it enough that they wrote motets about writing motets and addressed letters from Lady Music to themselves?



That’s it for now, folks. The textbook goes on to talk about Machaut, and then about other, later composers of motets Johannes Ciconia (c. 1370–1412) and Guillaume Du Fay (1397–1474), then says some stuff about *musica ficta*, and returns one more time to the *ars nova* at the end to pronounce its polytextual motets purposely inscrutable (“We need not assume that proper performance practice or greater familiarity rendered comprehensible to contemporary listeners that which is incomprehensible to us,” p. 286). It probably won’t surprise you that I strongly disagree with that last bit. If you want to read my disagreement at length, [see here](#). But for now, I want to wrap up.

The *Roman de Fauvel* is basically the reason why I’m your teacher now. I encountered it when I was a junior, during a music history survey. I couldn’t believe someone would make that manuscript in the early fourteenth century; I was smitten by the weirdness and wanted to know more. I went to grad school. One of the first times I met Richard Taruskin was at a conference early in my graduate school career. When he asked me what I was planning to write my dissertation on, I said “the fourteenth-century motet.” And he said “hasn’t that been done already? Why don’t you study Russian music?” It was not a dismissal of me—Taruskin knew that I was a fluent Russian speaker and presumably thought my expertise would be more useful in what he considered an under-studied and more relevant field. But it did feel a bit like being told to study “my own music,” and it was certainly a dismissal of the *ars nova*.

Scholarly trends are fleeting, and music history is long—and only getting longer. There are plenty of problems with studying the distant past: problems of interpretation, problems of representation. I certainly will never make the case to you that the *ars nova* is a more important thing to study than anything else. But what I hope to have demonstrated with this exercise is that the work of historians—music historians included—is never done. Our understanding of the past and its cultural products is always contingent and knowledge about history gets old and out-dated, just like other kinds of knowledge. This textbook was first published in 2005 as part of the five-volume *Oxford History of Western Music*. It has only been sixteen years, then, since its publication. And yet look how much has changed!

Is the whole textbook this prone to error? Honestly I’m not sure. I have heard enough scholars say something on the order of “he does a good job with every period except mine” to make me worry. But I also think that the *ars nova* is especially susceptible to being misunderstood for various reasons. If all chapters of the *Oxford History of Western Music* were this problematic, I think it would not still be in press.

Maybe the problem is textbooks.

Maybe the problem is the idea that one person would write about the whole of Western music history.

And maybe there is no problem. Maybe the speed with which knowledge ages is precisely the reason that I get to have my job and that you end up in my class. The past may be long-gone, but our understanding of it is always going to take place in the present, and therefore I suppose it will end up being as shifting, elusive, and dynamic as anything else that goes on nowadays.

Thanks for reading.