

## “ARRIPUI HYMNARIUM”: VARIANT FINALS IN HYMNS

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**Izvleček:** Ni nenavadno, da je dani himnus v različnih rokopisih v različnih modusih. Nekatera zamenjave so pogoste: himnusi, ki so v miksolijskem ali dorskem modusu, ali himnusi, katerih finalisi se razlikujejo za en ton. Obstoji tudi povezava med himnusi z različnimi finalisi in himnusi z nestabilnimi kadencami: to so tisti himnusi, ki ustrezajo več kot eni skupini v taksonomiji Janke Szendrei, ki bazira na opazovanju kadenčnih tonov stopnjo nad, pod finalisom ali na samem finalisu. Razprava obravnava skupino osmih himnusov, ki so nestabilni z ozirom na oba kriterija; ugotoviti je mogoče, da je odsotnost ključnega skoka navzgor v melodiji tista lastnost, zaradi katere so modalno nestabilni, tako da se pojavljajo v različnih modusih.

**Ključne besede:** gregorijanski koral, himnus, modalnost.

**Abstract:** It is not unusual for a hymn to be found in a different mode in different manuscripts. Certain relationships are common: for example, hymns which are transmitted as mixolydian or dorian, and hymns which are transmitted with their finals a tone apart. There is also a correlation between hymns with variant finals and hymns with unstable cadence points: those that fit into more than one structural group in Szendrei's taxonomy of hymn melodies on the basis of their cadence degrees above, below or equal to the final, whatever that final shall be. This essay investigates a small group of eight hymns which are unstable by both taxomic criteria, and concludes that it is their lack of meaningful leaps upwards that causes their instability and enables them to migrate from one mode to another.

**Keywords:** plainchant, hymn, modality.

The medieval sense of tonal centre is not a subject which has attracted much scholarly attention. Issues like variant finals in different versions of the same melody might almost suggest that there was no medieval sense of tonal centre, or that at any rate it was weak. However, I believe that a goal-directed analysis of chant melodies and a careful reading of medieval theorists indicate a distinct tonal awareness. Paradoxical though it may seem, the existence of variant finals actually points in the direction of such an awareness, since different versions of the same melody manipulate it, often in small ways, in order to project the modal final. In a context of overall stepwise melodic movement, leaps upwards from the final serve to distinguish that final early on in the piece and to set up an expectation of a stepwise return to it at the end of the piece.<sup>1</sup>

When I turned my attention to Gregorian hymns, where variant finals are common,

<sup>1</sup> For a fuller discussion see Fiona McAlpine, *Tonal Consciousness and the Medieval West*, Bern, 2008.

“Arripui hymnarium” – to paraphrase Regino of Prüm:<sup>2</sup> I took Stäblein’s 1956 collection of some 550 melodies,<sup>3</sup> in which the melodies are arranged according to their manuscript order, covered their final lines, began to sing them through and tried to predict what their last note would be. I was almost always correct. What made me so sure was that there was either a leap up from the modal final near the beginning of the song or after a prominent cadence point, or that there was a patterning of other leaps with strong modal indications, thereby foretelling the final. For example, although there are no leaps up from E in the first line of hymn number 59, shown in Example 1, the D–F pincer movement round a cadential E in the first line is a very characteristic phrygian signal, and the hymn ends on E. Slurs are used to highlight the pincer movement, and a straight line connects pitches which are found within the same neume.

### Example 1

Heiligenkreuz 20,12

Cho - rus no - vac Je - ru - sa - lem

#### #59 *Chorus novae Jerusalem*

Circling round a cadential point often makes the mode of a hymn clear even if there are no leaps upwards at all.

A leap up from the final is a meta-signal which enables a hymn to exist in different modes: these two versions of *Aeterne rerum conditor* each feature a leap up of a fourth after the first cadence (see Example 2, p. 37).

Such cases are not hard to understand: there are so few thirds above the final in tetrardus hymns in general, and in cases of protus/tetrardus modal variance in particular, that the quality of the mode as mixolydian or dorian becomes less important to a singer than simply knowing which pitch to end on.<sup>4</sup>

Yet there were hymns whose endings I could not always predict. These hymns tended not only to vary in mode from one version to another but also to have unstable cadence points: those whose variants fit into more than one structural group in Janka Szendrei’s

<sup>2</sup> Regino (c. 842–915) introduces his *De harmonica institutione* with the words “Arripui Antiphonarium, et eum a principio usque in finem per ordinem diligenter revolvens, antiphonas, quas in illo adnotatas reperi, propriis, ut reor, distribui tonis.” (“I took the antiphoner, started at the beginning and continued conscientiously till the end, and every antiphon which I found in it I assigned to what I believe to be the correct tone.”) Edna Marie (Sr Mary Protase) Le Roux, *The “De Harmonica Institutione” and “Tonarius” of Regino of Prüm*, Ph.D. diss., Catholic University of America, 1965, p. 23.

<sup>3</sup> Bruno Stäblein, *Hymnen 1, Die mittelalterlichen Hymnenmelodien des Abendlandes, Monumenta Monodica Medii Aevi I*, Kassel, Bärenreiter, 1956.

<sup>4</sup> See Fiona McAlpine, Tonal Profiles of G-mode hymns, *Cantus Planus. Papers read at the 12th meeting, Lillaftired/Hungary, 2004*, ed. László Dobszay, Budapest, Institute for Musicology of the Hungarian Academy of Sciences, 2006, pp. 669–683.

taxonomy of Stäblein’s hymn melodies.<sup>5</sup> This classification was based on Rajeczky’s classification of four-line hymns by cadence degree equal to, above, or below the final, irrespective of mode. His primary grouping for four-line hymns was by the cadence for the second line, the principal cadence, (“Hauptkadenz”) followed, in order of importance, by the cadence for the first line and then the cadence for the penultimate line. There is quite a strong correlation between these structures and mode, in fact: to take a few examples from the common four-line, eight-syllable hymn as found in Rajeczky’s 1956 edition of Hungarian hymns, where he presented this classification,<sup>6</sup> most hymns in which the principal cadence was on the final were G-mode hymns, whereas a principal cadence a fifth above the final was overwhelmingly a sign of the D-mode. Tiny groups in which the principal cadence was a fourth or a sixth above the final contained almost exclusively E-mode songs. The most common cadence point for secondary cadences was the final, and in the dorian and mixolydian modes the next-most-common cadences were one degree above the final, whereas in the phrygian mode the next-most-common cadence was a fourth above the final, in fact in this mode penultimate cadences a fourth above the final ranked equally with penultimate cadences on the final. Cadences on the subfinal were more frequent in the dorian mode, whereas phrygian and mixolydian hymns never had a subfinal cadence at the end of their first lines.

There are 68 eight-syllable, four-line hymns represented by more than one version in Stäblein’s collection. Only 25 of those hymns are stable in both mode and cadence structure. Figure 1 (p. 38) shows a breakdown of those hymns of the 68 that are unstable in either mode or cadence structure.

<sup>5</sup> Janka Szendrei, *Melodieordnung der Monumenta Monodica Medii Aevi*, *Studia Musicologica Academiae Scientiarum Hungaricae* 6 (1964), pp. 277–298.

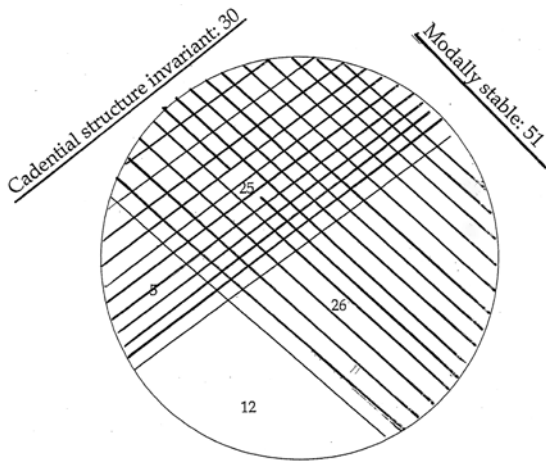
<sup>6</sup> Benjamin Rajeczky, *Melodiarium Hungariae Medii Aevi I, Hymni et Sequentiae*, Budapest, Zeneműkiadó Vállalat, 1956.

Example 2

Milan, Biblioteca Trivulziana 347

#1 *Aeterne rerum conditor*

Figure 1



Of these twelve, eight vary in principal cadence and mode:

#2  
#3  
#13  
#14  
#36  
#134  
#155  
#413

Variant/invariant structure

Of these 68, 51 show modal stability, but only 30 show a stable cadence-structure in Szendrei's taxonomy. 25 of these 68 hymns are invariant in both structure and mode, 26 are stable in mode but variant in cadence structure, 5 only are invariant in structure but unstable modally – Example 2, *Aeterne rerum conditor*, is one of these – and 12 are variant in both cadence structure and mode. 43 of those 68 hymns are variable in one way or another. Of the 12 which are variant in both cadence structure and mode, 8 vary not only modally but even in their principal cadence (out of a total of 20 hymns which vary in their principal cadence.) These 8, which are the most highly-variable by any measure, are the focus of the present study, which will consider four of them in detail. I might add that the more versions of a tune that one was able to add to such a study, the more likely it would be that the group of 25 very stable hymns would shrink and the various groups of unstable hymns would grow. This would make for a never-ending project, so it seemed important to limit the field of inquiry in order to develop, from a focused examination of these eight hymns, a methodology for thinking about instability in the transmission of the hymn repertory in general. Rather than focusing on written transmission, though, this study will focus on the musical material itself.

Hymns come relatively late to musical notation.<sup>7</sup> There is perhaps a certain kind of memorability conferred on hymns, because of their strophic form, that can make hymn

<sup>7</sup> See Susan Boynton, *Orality, Literacy and the Early Notation of the Office Hymns*, *Journal of the American Musicological Society* 56 (2003), pp. 99–168.

variants seem astonishingly faithful to melodic details, even if the whole sound or the whole *Gestalt* alters. After some six verses of an office hymn, day after day, it is lodged in one’s brain even if it does not conform to an internalised sense of what its deeper structure should be. One of the case studies presented in this article shows one monastic attempt to make such a hymn conform to a concept of deeper structure in which the last note of the hymn is given a particular emphasis earlier on.

The significant factor shared by these eight most-variable hymns is their relative lack of a leap from the final. Only two hymns, numbers 36 and 155, feature consistent leaps from the final. These are both cases of protus/tetrardus modal variance. Of the others, there are leaps from the final in only some variants in numbers 3, 13, 14 and 134. In several of these variants there is a suggestive leap, but the final that eventually ensues is not the one that the leap suggested it should be. Finally, numbers 2 and 413 have no leaps from the final at all in any version, and again any leaps that *are* there suggest a final other than the one which eventually ensues. Without strong signals to anchor the piece to a final, it is no wonder that the piece was able to float modally.

Example 3 shows number 3, a melody from Stäblein’s “early layer” of Milanese hymn melodies, a melody commonly-used for a variety of texts and a variety of everyday purposes, from ferial Lauds for the Cistercians to ferial Vespers for the twelfth-century Benedictines at Gaeta. Melody number 3 is a good example of those melodies which leap from the final in only some versions, and in others set up a suggestive leap which

### Example 3

Milan, Biblioteca Trivulziana 347<sub>2</sub> 3 2  
Splendor pa-ter-nae glo-ri-ae, De lu-ce lu-cem pro-fe-re-ns, Lux lu-cis et fons lu-mi-nis, Di-em di-es il-lu-mi-nans.

Cistercian Hymnal (Heiligenkreuz 20,12) 1 2 1  
Splendor ...

Nevers (F-Pn n.a.l. 1235) 1 3 1  
Rex ae-ter-ne do-mi-ne, Re-rum cre-a-tor om-ni-um, Qui e-ras an-te sae-cu-la Sem-per cum pa-tre fi-li-us.

#3

does not in fact foretell the final. Modally, this group can represent any one of the four Gregorian mode-pairs, with the protus–tetrardus crossover being common to them all. Melody number 3 can represent hymns 14 and 134, both examples of a protus/tetrardus crossover; melody number 13, which has strong overtones of the phrygian mode, will be discussed below. Example 3 shows versions of melody number 3 from Milan, Nevers and the Cistercian hymnal, with the cadence degrees above the final numbered according to Rajeczky’s classification. (“1” means the same as the final, as in “scale degree 1”.) Each version has below it an analytical graphic summary, where stems down single out the final and stems up show the cadence notes. All versions have been transposed to the same pitch level for ease of comparison.

Almost all versions show a leap up from D in the first line, represented in the analysis by a dotted tie. This leap suggests a D final, an expectation heightened by a D cadence at the end of the line and no further leaps upwards, as shown in the Milan version. The C is therefore surprising, and that is why my dotted tie trails off into nothing beyond the double bar. It must have surprised the Cistercians also, because their version of the tune follows the Milan version in most of its melodic details, yet ends on a syntactically-correct D. The dotted ties show the further opportunities taken for leaps from D. An alternative workaround keeps the C ending, but takes care to leap up from C early in the song. This is shown most clearly in the twelfth-century version from Nevers cathedral – actually written on G – where the first cadence is on “C”, to use the pitches shown in Example 3, providing a marked jumping-off point for a leap to “F”, which by being larger and coming from a cadence point manages to make the earlier leap from “D” pale into relative insignificance. If we transpose it back to its original pitch level, we find in the first line not C, D and F but the pitch-complex G, a and c, which is a hypomixolydian signal.

Now it seems obvious in such a hymn that a change of mode will affect the cadential structure, since once the Cistercians had changed the final cadence, the principal cadence would naturally be a tone above the final instead of a third above it. The Cistercian version belongs to one of the least-common structural groups: that where the principal cadence is a second above the final. There are only 29 of these in Szendrei’s taxonomy: only tiny groups of songs with their principal cadence below even the subfinal (7 melodies) or above scale degree 5 (8 melodies) have fewer. Similarly, once the canons of Nevers changed the first cadence in order to project “C” as final by a leap, the first cadence is now the same as the final one rather than being a tone above it, as it is in the Milanese version. The monks of Gaeta and Einsiedeln and the canonesses of Klosterneuburg – whose versions are not shown in the example – followed a similar strategy, and their versions end on “C”: actually G at Gaeta and F at Einsiedeln. Because of the narrow range of melody number 3, which never exceeds a fifth in any of the variants collected by Stäblein, the issue whether the final is C, F or G is trivial. It is interesting that these melodic alterations put the hymn into the commonest category for a first cadence, whatever the principal cadence is: the same pitch as the final cadence. If we accept that the Milanese version represents the oldest version of this hymn – for the manuscript is granted its primacy by Stäblein not because it is the oldest one he used but because Milan is where hymn-singing in the West is held to have begun<sup>8</sup> – hymn

<sup>8</sup> See David Hiley, *Western Plainchant*, Clarendon Press, Oxford, 1993, p. 140.

number 3 provides a fascinating glimpse of measures taken to achieve something that felt correct. It is also interesting that five of my group of eight can be traced back to Milan, as shown by the low numbers – 2 to 36 – given them by Ståblein.

But there *are* modally unstable hymns which keep the same cadential structure. As I said, there are only five of these: those like *Aeterne rerum conditor* which vary between protus and tetrardus. All these hymns feature meaningful leaps, if not always in every variant. Protus-tetrardus crossovers feature heavily in the twelve highly-variable hymns: eight of them, in fact, including six from my sample of the eight least-stable hymns: numbers 3, 13, 14, 134, 155 and 413. 3, 13 and 413 also have a third alternative for the final, either F or E. Number 155, which features leaps from the final, can be represented by Example 1.<sup>9</sup>

Another of my group of eight, number 36, features a difference between C and G, the former from a Milanese manuscript of the seventeenth or eighteenth century, clearly an example of the taste for mixolydian having veered towards major. Both versions feature a meaningful leap up from the final.

Finally, there are those hymns from my sample of eight which involve the phrygian mode: 2, 13 and 413, and to these three pieces I shall now turn, starting with the two hymns which show no leaps up from the final in any version.

Melody number 413 sets the text *Dei fide qua vivimus* and features endings on G, D and E. A melody widespread but seldom sung, its dirge-like character fits terce for the ferias of Lent, to which it was mainly assigned. Example 4 shows versions from Einsiedeln, Verona and Worcester, representing the three different finals which are found for this hymn. There is no analytical layer: the slurs and ties on the transcriptions are used analytically, to show how gaps are filled. A straight line connects pitches which are found within the same neume.

#### Example 4

The image shows a musical score for three variants of the hymn "Dei fide qua vivimus". The score is written on three staves, each with a treble clef and a key signature of one flat (B-flat). The lyrics are written below the notes. The first staff is labeled "Einsiedeln 366" and has a 4-measure phrase, a 3-measure phrase, and a 3-measure phrase. The second staff is labeled "Verona CIX (102)" and has a 4-measure phrase, a 4-measure phrase, and a 3-measure phrase. The third staff is labeled "Worcester F160" and has a 2-measure phrase, a VII-measure phrase, and a 3-measure phrase. The lyrics are: "De - i fi - de qua vi - vi - mus Spe per - en - ni qua cre - di - mus Per ca - ri - ta - tis gra - ti - am Chris - ti ca - na - mus glo - ri - am."

#### #413 *Dei fide qua vivimus*

In only one of Ståblein’s variants does the final appear before the last line, and, in the case of the E-final version, the final does not appear until the very last note – something not uncharacteristic of phrygian-mode melodies in general. Therefore the leaps upwards

<sup>9</sup> I have also discussed #155 elsewhere: see note 4.

which appear only in the third line (except in the Verona version, where there is one in the second line) are not from the final. For this reason its final was unguessable most of the time. The leaps from D in the final line of the D and E versions are almost too late to be meaningful. For this reason it is not surprising that the song is modally unstable. It consists rather in a slow descent through a fourth or a fifth, as shown by the stemmed black noteheads, and it is not surprising either that no cadential structures match; nor are the cadential degrees above the final among the most widespread.

Melody number 2 is an unadorned melody with a straightforward AA'BA form. It mainly sets the text *Splendor paternae gloriae* and was mainly sung at Lauds. It hovers between E and F and does not feature any leaps from the final. In Example 5 versions from Worcester and Kempten represent the two finals.<sup>10</sup>

### Example 5

#2

Again, it is an example of a melody whose principal cadence, G, will necessarily vary in its intervallic relationship with the final because the two finals are one step apart. However, each ending was able to be predicted because of significant melodic patterns early on. The Worcester and Nevers versions use a D-F leap in the first line, circling around its cadential E in a typical phrygian fashion. The Milan version also circles around E in its first line, both starting and ending on E, although it does not use any leaps. On the other hand, the two Germanic versions, Kempten and Einsiedeln, both of which are pentatonic, open with the gapped subfinal fourth figure F C D F which is typical of a mode 6 opening.

Except for Gaeta, melody number 13 is a case of no leaps or the wrong leap. It is a melody which was used for a variety of texts in a variety of liturgical contexts. It is interesting that Ståblein found it only in Italian sources, apart from the Cistercian hymnal,

<sup>10</sup> Melody 2<sub>1</sub> is not included in the example. I am not convinced that it ought to be regarded as the same melody. Worcester contains a second version of the same melody, which is not represented here. It is identical except for two places in the first line.



which modelled itself consciously on the use of Milan. Example 6 shows versions from Milan and Gaeta, as well as from the Cistercian hymnal.

**Example 6**

#13

With its first line starting on E, circling around E and cadencing on E, melody number 13 suggests a cadence on E: but no version finishes on E. If cadence structure was anything to go by, the cadence of line two in all versions would lead us to expect a final cadence on E, since by far the commonest scale degree for the principal cadence is the final. There are 141 hymns whose principal cadence is on the final, almost twice as many as the second-most common grouping, the 72 hymns whose principal cadence is on scale degree 5. The majority of pieces whose principal cadence is on the final – 84 out of 141 – also have their first cadence on the final, as does hymn number 13. Although the Milan version has no leaps upwards at all, the ending on D is unexpected from the perspective of cadence structure. This time the Cistercians did not administer the same kind of correction as they had in melody number 3: they made it sound yet more E-centred with a leap from E in the second line, a move also found in Verona – yet both versions still end on D. Gaeta too has a leap from E at that point, but it is preceded in the first line with a scarcely-registered leap from a liquescent C – and by ending on C this version causes the structural instability one would expect from versions whose finals were a step apart. It is instructive to compare hymn

melody number 13 with melody number 514 from Klosterneuburg (see Example 7), whose first line is almost identical, but whose continuation lives up to its phrygian promise.

### Example 7

Klosterneuburg 1000

Be - a - ta no - bis gau - di - a An - ni re - du - xit or - bi - ta, Cum spi - ri - tus pa - tra - cli - tus Ef - ful - sit in di - sci - pu - los.

M 99

Nunc sanc - te no - bis spi - ri - tus

# 514

Although the first leaps upwards are from D, and there is a leap from E only at the end of the second line, lines two and three of melody number 514 constitute a pattern of leaps which acts as a strong phrygian signal: E D G a c. Its ending is totally predictable, and we have a well-made tune which is also found in Sweden and Hungary.<sup>11</sup> The similarity between the first lines shows up even more in the first line of the Swedish version.

To round off this study we ought to look at a control: a melody which remains in the same mode yet varies in cadence structure. We could compare melody number 3 to melody number 32, which is dorian everywhere, but in which there is only agreement on the first cadence (see Example 8).

### Example 8

Milan Psalter (1574)

Ve - xil - la re - gis pro - de - unt, Ful - get cru - cis my - ste - ri - um, Qua vi - ta mor - tem per - tu - lit, Et mor - te vi - tam red - di - dit.

#32 *Vexilla regis*

Perhaps one of the things that makes that first cadence so stable is not just that it is the final, but also that it is the point from which there is a leap upwards in all versions of the tune.

This small sample of eleven hymns, eight highly variable and three for purposes of comparison, points up the importance of the leap in ensuring a stable modal transmission regardless of other kinds of variation. It underlines the overall stability of modes and points to their meaningfulness as a way of navigating one's way successfully through a piece from beginning to end.

<sup>11</sup> Carl-Allen Moberg, Ann-Marie Nilsson, *Die liturgischen Hymnen in Schweden II*, Uppsala, Almqvist & Wiksell, 1991, hymn number M99; Rajeczky (op.cit.) hymn number 24. This hymn is a good example of what could become a never-ending project: the Swedish hymn is found with a D ending as well as an E ending, both from the same twelfth-century manuscript, the first version to be sung on ferias at prime, the second to be sung at terce.

»SEGEL SEM PO HIMNARJU«: VARIANTNI FINALISI V HIMNUSIH

Povzetek

»Arripui antiphonarium ...« je v svojem traktatu *De harmonica institutione* zapisal Regino iz Prüma (ok. 842–915): »Segel sem po antifonalu, pregledal sem ga od začetka do konca, in antifone, ki sem jih našel v njem, sem dodelil, kot menim, pravim modusom.« Navezujoč se na to Reginovo poročilo, se postavlja vprašanje: ali je mogoče iz melodičnega poteka himnusov razbrati ciljni ton melodije, finalis? Odgovor je pritrdilni; sam melodični potek skoraj vedno na neki način napoveduje finalis oz. izkazuje pripadnost enemu od modusov. To velja celo za tiste himnuse, ki imajo v različnih rokopisih različne finalise, saj se hkrati s spremembo finalisa v zapisih zelo pogosto spremeni tudi melodični potek. Modalnost danega himnusa je zelo pogosto nakazana s karakterističnim skokom v melodiji, in prav odsotnost tega je pogost vzrok modalne dvoumnosti. Celotni kompleks vprašanj v zvezi z modalno pripadnostjo himnusov (kot tudi drugih gregorijanskih žanrov) je zelo zapleten, vendar je očitno, da izkazujejo melodije himnusov pretanjen glasbeni občutek za modalno pripadnost.