Fachhochschule Nordwestschweiz
Musik-Akademie Basel

Hochschule für Musik
Schola Cantorum Basiliensis

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An Exploration of Range, Mode and Performance Practice in Hildegard von Bingen's "O tu illustrata"

von

Karin Weston

Betreuende Dozentin: Kelly Landerkin
Hauptfach: Gesang Mittelalter-Renaissance
Hauptfach-Dozentin: Katarina Livljanić

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Abstract

Hildegard von Bingen's "O tu illustrata" is a puzzle of a piece, both due to its modal instability and its extravagant range of an 18th. Thought of as "impossible" to sing, most recordings and editions have made major changes to the melody, especially in the verse. What did Hildegard intend with "O tu illustrata"? How should one approach singing it now? This paper explores possible answers to these questions, drawing on contextual clues from Hildegard's life story, her musical milieu, her other works, modal and textual analysis of the piece, modern editions and recordings, and what is even possible for the human voice.

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1. Introduction

Hildegard von Bingen is perhaps the closest thing to a medieval composer with a "household" name. Her strong personality and impressive accomplishments for a woman of her time make her a compelling historical figure, and her music popular repertoire for amateur and professional ensembles. However, her music is not so easy – her chants usually span a 11th or 12th, with some encompassing two octaves and one even a 19th, spanning the whole Guidonian gamut. These ranges of two octaves or more are quite unusual in medieval music. Were these pieces actually sung as written? Or should they involve some transposition?

Hildegard's "O vos angeli" is her piece with a range of a 19th. Dedicated to the angels, it is usually transcribed and recorded (though not often recorded) with the pitches found in the manuscripts. Oddly, it is Hildegard's piece with the second-largest range, "O tu illustrata," with a range of an 18th, which has more often been altered. It has consistently been misclassified as having a smaller range, with recordings and editions often providing a different version of the melody than what is on the page. This started with Joseph Gmelch in 1913,[1] but it is the 1969 edition of Hildegard's *Symphonia* by Barth, Ritscher and Schmidt-Görg that is the real source of these emendations. With a note in the critical apparatus stating, "Teilweise zum Singen unmöglich," ("sometimes impossible to sing"), the Barth, Ritscher, Schmidt-Görg edition makes changes to the melody that bring it into a more manageable range of a 14th, changes that Marianne Richert Pfau mirrors closely in her edition. The vast majority of recordings follow this Barth, Ritscher and Schmidt-Görg edition. The Sequentia recording provides a unique solution, but also makes major changes to the melody, again bringing it into a more comfortable singing range. There are, however, a couple editions and recordings that follow the written notes literally: Vincent Corrigan's 2014 edition of Hildegard's *Symphonia* notates it as in the Riesencodex, and as far as I have heard, it has only been recorded with its written pitch relationships intact by Tapestry.

Taking the manuscript version, "O tu illustrata" is a puzzle of a piece, in terms of genre, mode and its extravagant range, and it is not so surprising that the majority of recordings and editions have made major changes to the melody, especially in the verse. It is an antiphon, but an antiphon with a verse, a genre that is quite rare. There are many shifts in both the sense of mode and final throughout the piece, an irregular (though not unique) characteristic for Hildegard's works. "O vos angeli," even though it has a larger range than

[1] Gmelch, *Die Komponisten Der Heil. Hildegard*, 19. Gmelch misreading of the Riesencodex manuscript is unfortunately still relevant in current scholarship. Jennifer Bain uses Gmelch's faulty chart of the ambitus of each of Hildegard's chants as part of the basis for her article *Hooked on Ecstasy*. See Appendix 1 for my chart of the ranges in Hildegard's pieces based on Corrigan's edition.

"O tu illustrata," is modally more understandable, and therefore it is more difficult to imagine changes to its melody. That "O tu illustrata" has been changed so consistently highlights that the issue of range is intimately connected to that of mode.

Are the notes on the page really what Hildegard intended with "O tu illustrata"? She is unfortunately no longer around to tell us. So what does one do with this piece – sing it at pitch, large range included? Or is it indeed "impossible" in some sections without transposition? Does transposing sections help resolve the modal irregularities, and do these resolutions make more or less sense as a setting of the text?

In this paper, I will explore the puzzle of this piece, and attempt to answer these questions. I will first gather some contextual provisions, looking at the specifics of Hildegard's life story – her education, her personality, her other works, the practices in her community – to see how these details might inform our sense of what she intended in her music. I also will examine Hildegard's music within the context of her milieu – did her contemporaries use similarly large ranges? I will briefly look at "O vos angeli," and then will then do a modal analysis of "O tu illustrata," first as it is written in the manuscript, then the version arrived at by Barth, Ritscher and Schmidt-Görg. I will discuss the merits and drawbacks of some different potential sung versions of this piece in the context of what is even possible for the human voice. There is no correct answer that can be hoped for at the end of this process, but by paying attention to the notes on the manuscript page, and placing the piece against the background of its context, I hope to arrive at a more informed solution for bringing this piece off the page and into a sonic reality, one that is as aligned with the composer's intention as it can be possible to theorize or know.

2. Hildegard

2.1 Hildegard the Woman

Hildegard was born in 1098, the tenth child of nobles Mechtild and Hildebert of Bermersheim. She had visions from a young age, often accompanied by bouts of sickness. Her ill health would have made her a poor candidate for marriage, and perhaps because of this, or due to the financial issues of providing a dowry for a tenth child, her parents offered her to the church. She was placed under the care of the anchoress Jutta of Sponheim, and they were enclosed together in 1112 at the Benedictine monastery of Disibodenberg, along with Jutta's niece who was acted as their servant. It is unclear how much of an education Jutta passed on to Hildegard – Hildegard's writings demonstrate a great amount of knowledge, but she always claimed to be unlearned, and that her writings were God speaking through her rather

than her own words.[2] However, in her *Vita* (begun by her secretary Godric of Disibodenberg and finished by Theodric of Echternach after Godric's death)[3], there is a small allusion to how Jutta, "instructing [Hildegard] in the songs of David, showed her how to play on the ten-string psaltery."[4] This description of a psaltery could be metaphorical rather than literal, but the singing the "songs of David" does likely refer to the singing of psalms.[5]

As an anchoress, Jutta became popular in the region for her advice and counsel, and many other families also asked Jutta to take in their daughters. Upon Jutta's death in 1136, the community comprised several nuns, and the other women of the community chose Hildegard to be their new *magistra*. In 1141, Hildegard had a particularly powerful vision, in which knowledge of the Scriptures was revealed to her, and in which God told her to tell of what she had seen and heard. It was after this vision that Hildegard began writing. As Hildegard began to be known in her region, more and more women joined her community. She had a vision in which God revealed to her that she should build a new convent at the nearby location of Rupertsberg, and she moved her growing community there in 1149 or 1150. However, this move did not happen without a fight – the abbot of Disibodenberg was reluctant to let Hildegard leave, as her reputation drew visitors and donations to the community, and her nuns came from wealthy families and had brought with them significant dowries. Eventually she gained dispensation from the archbishop to leave, and her a newfound autonomy at Rupertsberg would have allowed her to run her community as she wanted it to be run, or as she would see it, as God wanted it to be run. Hildegard remained there until her death on September 17, 1179,[6] and in 2012 that she became a saint.[7]

Over the course of her life, Hildegard wrote many works in addition to producing music, works describing her visions, works on theology, hagiography, medicine and science, and her correspondents were often important figures of the day and included popes, the Holy Roman Emperor and Bernard of Clairvaux.[8] She was aided in her writing by her scribe Volmar, and after his death by others. Hildegard's music is preserved mainly in two manuscripts, Dendermonde (Dendermonde, Sint-Pieters- en Paulusabdij, ms. cod. 9) and the Riesencodex (Wiesbaden, Hochschul- und Landesbibliothek RheinMain, ms. 2). Her

[2] Meconi, *Hildegard of Bingen*, 3–7.
[3] Meconi, 2.
[4] Silvas, *Jutta and Hildegard*, 139.
[5] Meconi, *Hildegard of Bingen*, 7.
[6] Meconi, 74.
[7] Meconi, 76–79.
[8] Meconi, 2.

surviving musical output consists of seventy-eight works of various genres, mainly antiphons and responsories, as well as one musical drama, her *Ordo virtutum.*[9]

Hildegard was a remarkable woman, especially for her time. She must have been a powerful personality, as she dared to do things that few people around her were doing, let alone women, but there are aspects of her life story that make it understandable how she could see herself as worthy of being listened to. She came from a privileged background – even in her enclosure with Jutta, she had a servant. In Jutta, she had a model of a woman whom people respected as having a special relationship with God, and those people would come from far away to consult with her. And most of all, Hildegard had her visions, which were, she felt, from God. And the visions God revealed to here were strange and fantastical – it is therefore not so surprising that her music might be exceptional to her time in some way.

2.2 Hildegard the Composer

In her music, as in her writings, Hildegard saw herself not as a composer, but as relaying what was revealed to her by God.[10] She emphasized that she had not received formal training in music: "But I also brought forth songs with their melody, in praise of God and the saints, without being taught by anyone, and I sang them too, even though I had never learnt either musical notation or any kind of singing."[11] Of course, Hildegard would have sung the Divine Office throughout her life since taking orders, so she likely is referring here to her lack of a formal education in singing. Her remark that she did not learn any kind of notation implies that she was not trained in music theory. Emphasizing her lack of formal music training reinforces that these melodies came from God, because she would not have had the knowledge to compose the melodies herself. Indeed, given her lack of formal training, it is not surprising if her music does not adhere rigorously to the theorists of her day. However, given that musical notation was still a relatively new invention, that she mentions it means that she was at least aware that it existed, revealing that she was perhaps not so wholly ignorant of music as she is eager to seem.

Hildegard's compositions were reputed to be extraordinary. A contemporary of Hildegard, Guibert of Gembloux, wrote to her in 1175, describing what he had heard of her and her music (Letter 104):

> Moreover, returning to ordinary life from the melody of that internal concert [Hildegard's visions], she frequently takes delight in causing those sweet melodies

[9] Meconi, 104.
[10] Meconi, 50.
[11] Dronke, *Women Writers of the Middle Ages*, 145.

> which she learns and remembers in that spiritual harmony to reverberate with the sound of voices, and, remembering God, she makes a feast day from what she remembers of that spiritual music. Furthermore, she composes hymns in praise of God and in honor of the saints, and has those melodies, far more pleasing than ordinary human music, publicly sung in church. Who has ever heard such things said about any other woman?[12]

Again, the author understands that the music to come from God as they are "sweet melodies which she learns and remembers." Interestingly though, he also says, "she composes hymns," but later it is clear that even though she "composed" them, they were "far more pleasing than ordinary human music." There are multiple things that this passage could imply – that this music actually is still from God, as it is "more pleasing than ordinary human music" and so must be divine, or it could be seen as saying this music was human music, but was extraordinary. In either case, the reputation of this music was as something special and out of the ordinary. Again, it is imaginable that such extraordinariness could manifest as transgressions of normal expectations of range and mode.

For Hildegard, singing was inherently associated with the body. Singing was a bodily expression of praise, and not singing caused great sadness. Later in her life, she had the misfortune of understanding firsthand the sadness that comes with not being allowed to sing. Her abbey was placed under interdict due to a dispute, and the interdict meant that the *opus dei* stopped – the nuns were not allowed sing the Divine Office or Mass.[13] In a letter to the prelates at Mainz to implore them to remove the interdict (Letter 23), Hildegard expressed that not singing had caused Hildegard and her nuns to be "greatly distressed and saddened." This letter further clarifies her understanding of how the physicality of the body and voice are linked with the soul: "The body is the vestment of the spirit, which has a living voice, and so it is proper for the body, in harmony with the soul, to use its voice to sing praises to God."[14] The voice seems to be at the intersection of body and soul, integrally connected to both. In the context of the voice's grounding in the physical body, but also connected to a soul that will eventually rightly belong in heaven, the athletic ranges seen in Hildegard's music are perhaps not so unreasonable. The extremes of high and low could be seen as offering the whole voice, and the whole soul, to God.

[12] Hildegard of Bingen, *The Letters of Hildegard of Bingen*, 1994, 2:30.
[13] Meconi, *Hildegard of Bingen*, 72.
[14] Hildegard of Bingen, *The Letters of Hildegard of Bingen*, 1994, 1:79.

2.3 Unusual Devotional Practices in Hildegard's Community of Nuns

Hildegard's personal and musical exceptionality was mirrored in the unconventional practices in her community. These practices were criticized by a Mistress Tengswich, the superior of the sisters of the nearby Andernach, in a letter written to Hildegard sometime around 1148-1150:

> We have, however, also heard about certain strange and irregular practices that you countenance. They say that on feast days your virgins stand in the church with unbound hair when singing the psalms and that as part of their dress they wear white, silk veils, so long that they touch the floor. Moreover, it is said that they wear crowns of gold filigree, into which are inserted crosses on both sides and the back, with a figure of the Lamb on the front, and that they adorn their fingers with golden rings…. Moreover, that which seems no less strange to us is the fact that you admit into your community only those women from noble, well-established families and absolutely reject others who are of lower birth and of less wealth.[15]

In Hildegard's reply, she does not deny these practices, but rather defends them. She asserts that married women should cover their hair and not overly adorn themselves, but that "these strictures do not apply to a virgin, for she stands in the unsullied purity of paradise, lovely and unwithering, and she always remains in the full vitality of the budding rod." In reference to the charge that her nuns only come from wealthy families, Hildegard asserts that each person should remain within their order, as that order was established by God.[16]

These practices of bodily adornment – wearing crowns, silk veils, golden rings, having unbound hair – celebrate the women's bodies. In Hildegard's reply, she also states, "Why is [woman] so resplendent? For two reasons: on the one hand, because she was created by the finger of God and, on the other, because she was endowed with wondrous beauty. O, woman, what a splendid being you are!"[17] Beauty was evidently important to Hildegard in her community, a value that would likely also have applied to her music.

While these practices were rather unusual and specific to Hildegard's community, new local practices were occurring in other monastic communities at this time as well. Anselm of Havelberg provides an imagined conservative critique of these new sorts of practices:

> Behold, we see in the church of God, as they say, certain people emerge who put on unusual habits at their own whim, they choose a new way of living, and whether under the name of the monastic profession or under the vow of canonical discipline, they take up for themselves whatever they want, they find for themselves a new way of psalmody, they decide on a new type of fasting and a new regime of food, imitating

[15] Hildegard of Bingen, 1:127.
[16] Hildegard of Bingen, 1:129.
[17] Hildegard of Bingen, 1:128.

> neither the monks who follow the Rule of Benedict nor the canons who follow the apostolic life under the Rule of Augustine.[18]

This imagined critique has many resonances with Tenxwich's actual critique. Hildegard was not existing in a vacuum, but was rather part of a larger movement. However, the practices in her community seem to be particularly extraordinary and brazen examples.

3. The Ranges of Hildegard's Chants and Those of Her Contemporaries

Hildegard's chants have large ranges, especially for her time (see Appendix 1 for a chart of the ranges of Hildegard's chants). Her chants on average have a range of 11.8 steps, an impressive one-and-a-half octaves. Several of her chants span two octaves, and "O tu illustrata" and "O vos angelis" to two-and-a-half octaves.

While Hildegard's pieces have extraordinary ranges as a rule, are they totally isolated examples, or are there other pieces that also have large ranges? One composer whose works we could examine is Hermannus Contractus, a monk who was a composer and music theorist who lived from 1013-1054. Originally from Swabia, he spent most of his life at Reichenau, where the music theorist Berno was his abbot.[19] Hermannus wrote offices for several saints, of which the offices for St. Afra, St. Wolfgang and St. Magnus survive.[20] Jennifer Bain has connected Hildegard's style to that of Hermannus – like Hildegard, his pieces often have large ranges, encompassing both plagal and authentic modes. Bain takes the example of Hermannus's chant "Afra priscam Raab," which is in protus authentic mode, but encompassing a range of a 13th from A to f and therefore also taking on plagal qualities in places.[21] This large range is indeed a range that would be at home amongst Hildegard's pieces. In addition to "Afra priscam Raab," the chant "Multis his inde" in the St. Afra office also has a range of a 13th.[22] Two chants in the St. Magnus office also have a range of a 13th: the responsory "Miris magnorum radiis" has a range of C to aa, and the antiphon "Precelsi confessoris Christi" has a range from A to f. Many other chants in that office also have ranges over an octave.[23] In the St. Wolfgang office, there are two chants with a range of a 13th: "Gaudeat tota virgo mater ecclesia" and "Eximie presul et pie pastor V. Ut qui te patrono

[18] Jeffreys, "'Melodia et Rhetorica': The Devotional Song-Repertory of Hildegard von Bingen," 227.
[19] Gushee, "Hermannus Contractus."
[20] Hiley, "The Historia Sancti Magni by Hermannus Contractus (1013-1054)," 368.
[21] Bain, "Hildegard, Hermannus and Late Chant Style."
[22] Contractus, Hiley, and Berschin, *Historia Sanctae Afrae martyris Augustensis*, 57.
[23] Hiley, "The Historia Sancti Magni by Hermannus Contractus (1013-1054)," 380–92.

gaude."[24] These examples show that the ranges of Hildegard's chants are comparable with other composers of the 12th century in German-speaking lands. However, a 13th was the largest range I could find, and several of Hildegard's chants have ranges of a 14th or 15th, in addition to the 18th of "O tu illustrata" and the 19th of "O vos angeli." The ranges of her pieces are extraordinary even in the context of the pieces by Hermannus Contractus.

Another example of a piece with a large range is mentioned in the *Summa musice*, a music theory treatise intended as primer for teaching choristers Gregorian chant. Christopher Page has suggested that this anonymous treatise was written around 1200 by two authors identified in the manuscript as Perseus and Petrus, the former being perhaps from Würzburg,[25] which is not so far from Bingen. This treatise contains a tantalizing reference to a chant with an extensive range:

> Chant of the first mode descends as far as *A*, four notes below the final, as in the beginning of the responsory *Letetur omne seculum*. It ascends to the letter *g*, that is to say ten notes above its final, in the same responsory at the words *eternus amor*. Some are of the opinion that this chant is irregular because of its excessive ascent, but we may counter them by saying that this ascent is delightful and so does not overstep the goal of music, chiefly invented for the sake of pleasure.[26]

This "Letetur omne seculum" had a range of A to gg, almost two octaves. As the author notes, the chant is "irregular because of its excessive ascent," indicating that pieces of such a range were the exception rather than the rule. It is further interesting that the author argues that this extensive range is a positive attribute, saying that "this ascent is delightful." Additionally, even though the range is greater than the one-octave range of most chants, here the extended range, "does not overstep the goal of music, chiefly invented for the sake of pleasure." Here, we find a proponent for the sorts of extended ranges found in Hildegard's works.

In the entry for "Letetur omne seculum" on the Cantus database, the melody has curiously been notated a seventh down for the high section on the words "eternus amor."[27] There is one manuscript listed on the Cantus database which contains this chant, Ms. 406 (shelfmark 3 J 7) in the Universiteitsbibliotheek in Utrecht. The library lists the possible dating as within the wide range of 1130-1450 with a suggested provenance from Utrecht.[28] Here is the scan (f. 148r):

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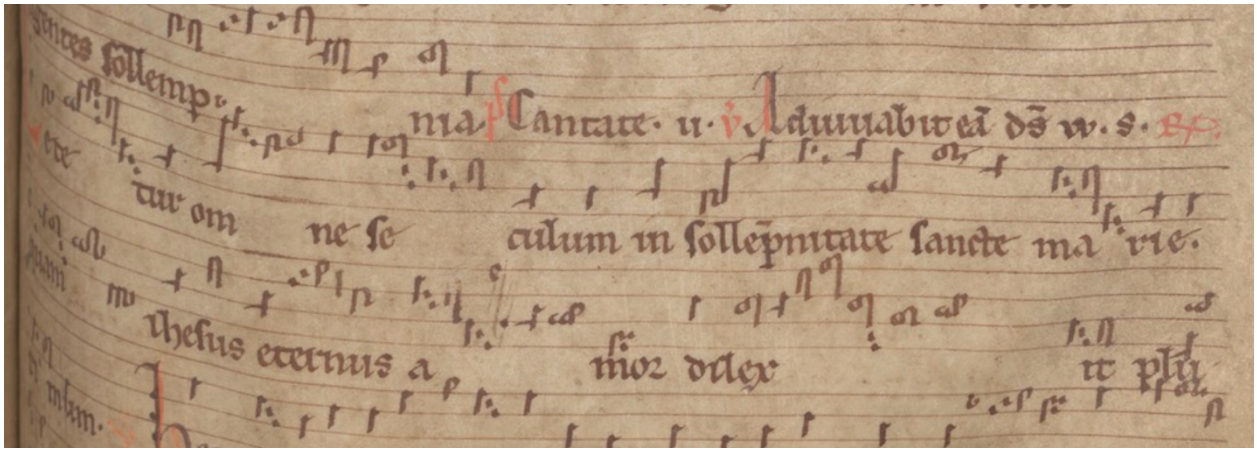
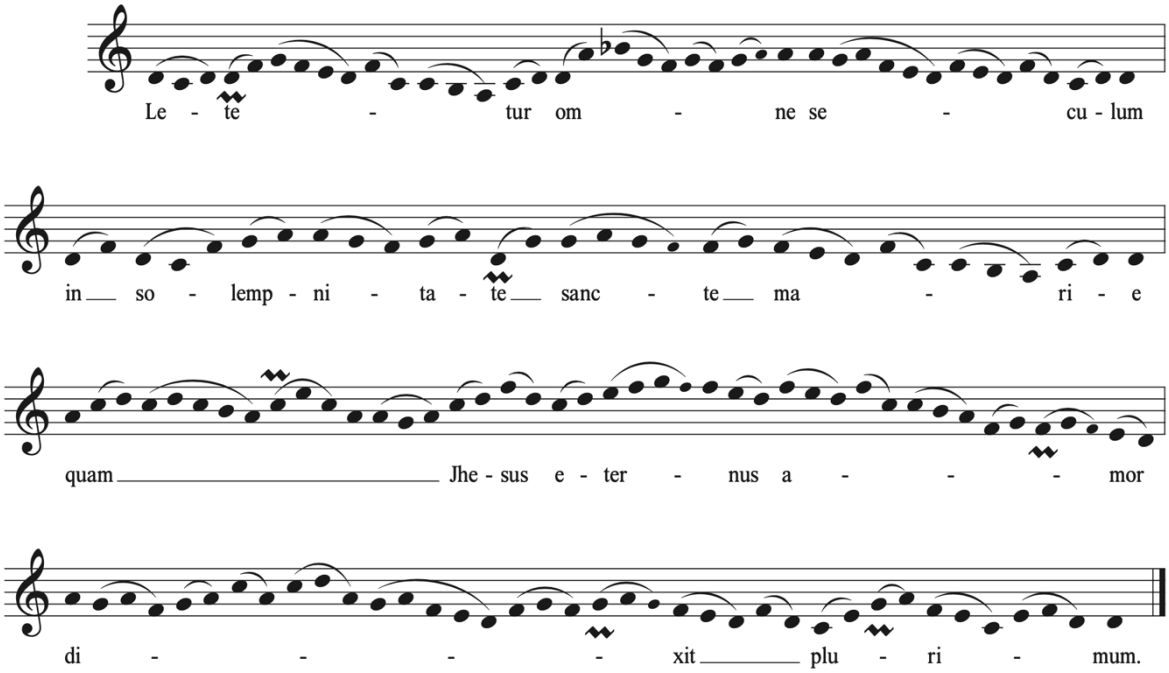
[24] Contractus and Hiley, *Historia Sancti Wolfgangi Episcopi Ratisbonensis*, xxxii–xxxiii.
[25] Page, *The Summa musice*, 12.
[26] Page, 98–99.
[27] "Laetetur Omne Saeculum in Sollemnitate | Cantus Manuscript Database."
[28] Kapittel van Ste Marie (Utrecht), *Antiphonale. UBU Hs. 406 (Hs 3 J 7).* Thank you to Kelly Landerkin for finding this manuscript source for me.



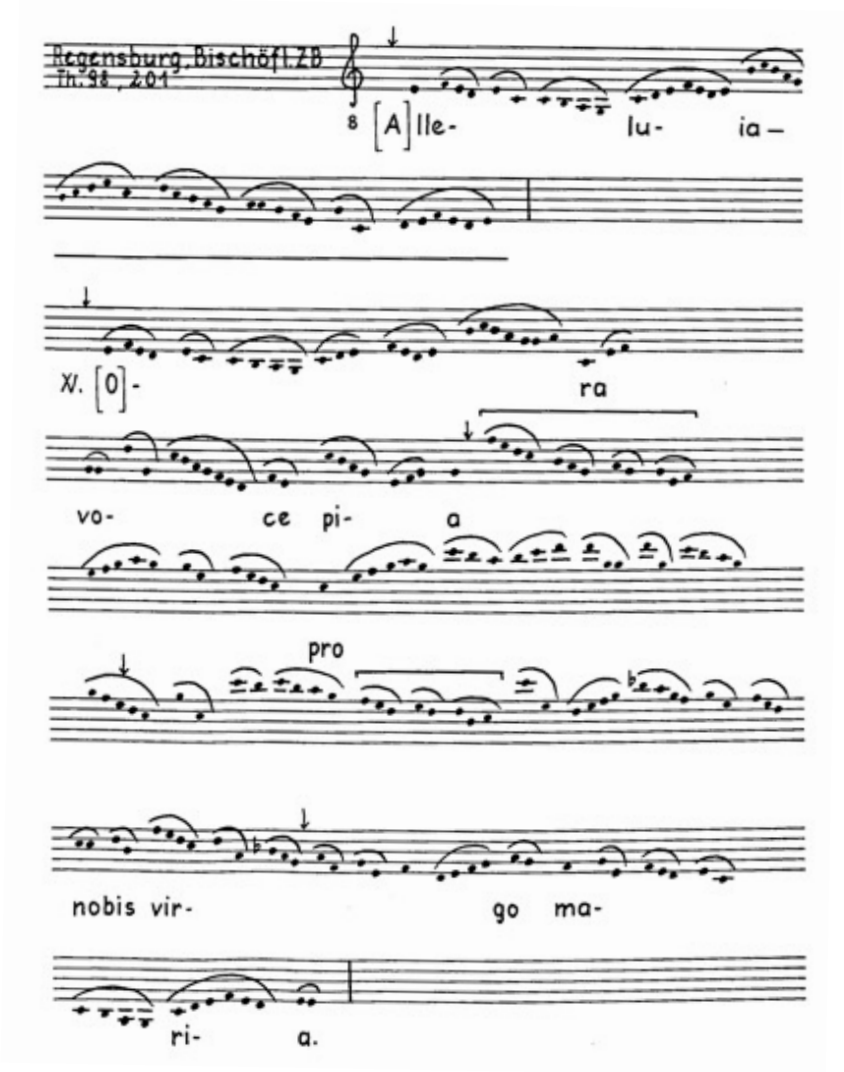
Unfortunately, as the book was not laid flat in the scan, the clefs and neumes on the left edge are difficult to read (which is likely why the Cantus database transcription contains errors). It is striking that the notation is so similar to that of the Riesencodex and Dendermonde, indicating that it could have originated not far from Hildegard. Based on the description in the *Summa musice*, I suggest the following transcription:



As can be seen, this chant contains a range of a 14th from A to gg, a large range even amongst Hildegard's pieces. As this is the *Summa musice*'s textbook example of a piece with a large range, this piece was the exception rather than the rule. However, the author of the *Summa musice* clearly thinks it is possible to sing this piece, and furthermore suggests that the large range is actually a positive attribute as he finds this ascent "delightful."

In addition to these examples, David Hiley has also described a chant which spans the entire Guidonian gamut – "All. Ora voce pia pro nobis virgo Maria." This piece is another

12th century chant found in a few South German sources.[29] Below is the transcription of this piece in the *Monumenta monodica medii aevi*:[30]



This range of a 19th is the same as that of Hildegard's most expansive piece, "O vos angeli," and has a range a step greater than that of "O tu illustrata."

These examples of 12th-century chants from German-speaking lands show that Hildegard was not alone in her use of ranges far beyond the octave recommended by theorists of her day in their definitions of mode. But just as the practices in Hildegard's convent were on the radical edge of similar new practices in other monastic communities, the ranges in Hildegard's music overall still outstrip that of her contemporary Hermannus Contractus, and her most expansive pieces are only matched by the most radical examples of pieces with large ranges, like the nearly two-octave "textbook" example, "Letetur omne seculum," and the

[29] Hiley, *Western Plainchant*, 138.
[30] Catholic Church and Schlager, *Alleluia-Melodien*, 393.

Alleluia "Ora voce pia pro nobis virgo Maria." In terms of chant ranges, she was both of her milieu and exceptional within it.

4. "O vos angeli"

We will not turn to Hildegard's most expansive piece, "O vos angeli." What could be the reasoning behind using such a large range for this piece? In Hildegard's *Cause et cure*, she describes Adam's singing in his pre-fall innocence thus:

> Now, Adam, before his treachery, used to know angelic song and every kind of music, and he used to have a voice sounding like a monochord sounds. But in his treachery, from the cunning of the serpent, a certain wind of his [of the serpent] twisted him in the marrow and the thigh, and this [wind] is indeed now in every man. And from that wind, man's spleen has grown fat, and foolish joy and laughter and even jeers are shaken out of man.[31]

Before Adam's fall, he could sing like the angels. And how did he and the angels sound? Like the monochord – the instrument used for teaching the notes of the gamut. It is not so surprising then, that this song for the angels should imitate the sound of the angels by encompassing the whole Guidonian gamut. This large range is associated with the music of the angels in heaven.

While Vincent Corrigan's transcriptions of these pieces are faithful to the manuscripts, he is skeptical about the possibility of singing them as written. "Something is very wrong with both pieces devoted to angels. They have such wide ranges that performance is impossible, and I suspect that the problem has to do with the trouble the scribes had in dealing with the source manuscript, not in the actual sounding notes."[32] While Corrigan does not believe it is possible, there are several recordings of "O vos angeli" that span a full 19th: Sequentia,[33] Tapestry,[34] Richard Vendome and the Oxford Girls' Choir,[35] Cosmedin,[36] and Anneliina Koskinen.[37] There is a recording of "O vos angeli" by Ensemble Venance Fortunat[38] which transposes sections down an octave to make it more singable, but this practice seems to be an exception rather than the norm. Why are there so many recordings that retain the pitch

[31] Translation by William Flynn, from Hildegard von Bingen, *Beate Hildegardis Cause et cure*. Ed. Moulinier, 188, as cited in Leigh-Choate, Flynn, and Fassler, "Hearing the Heavenly Symphony: An Overview of Hildegard's Musical Oevre with Case Studies," 178.
[32] Hildegarde and Corrigan, *Symphonia*, 62.
[33] Sequentia, *Celestial Hierarchy*.
[34] Tapestry and Ensemble Project Ars Nova, *Angeli - Music of Angels*.
[35] Oxford Girls' Choir and Vendome, *Music for a Medieval Abbey*.
[36] Cosmedin, Haas, and Haas, *Seraphim*.
[37] Koskinen, *De Angelis*.
[38] Ensemble Venance Fortunat and Deschamps, *Missa de Angelis*.

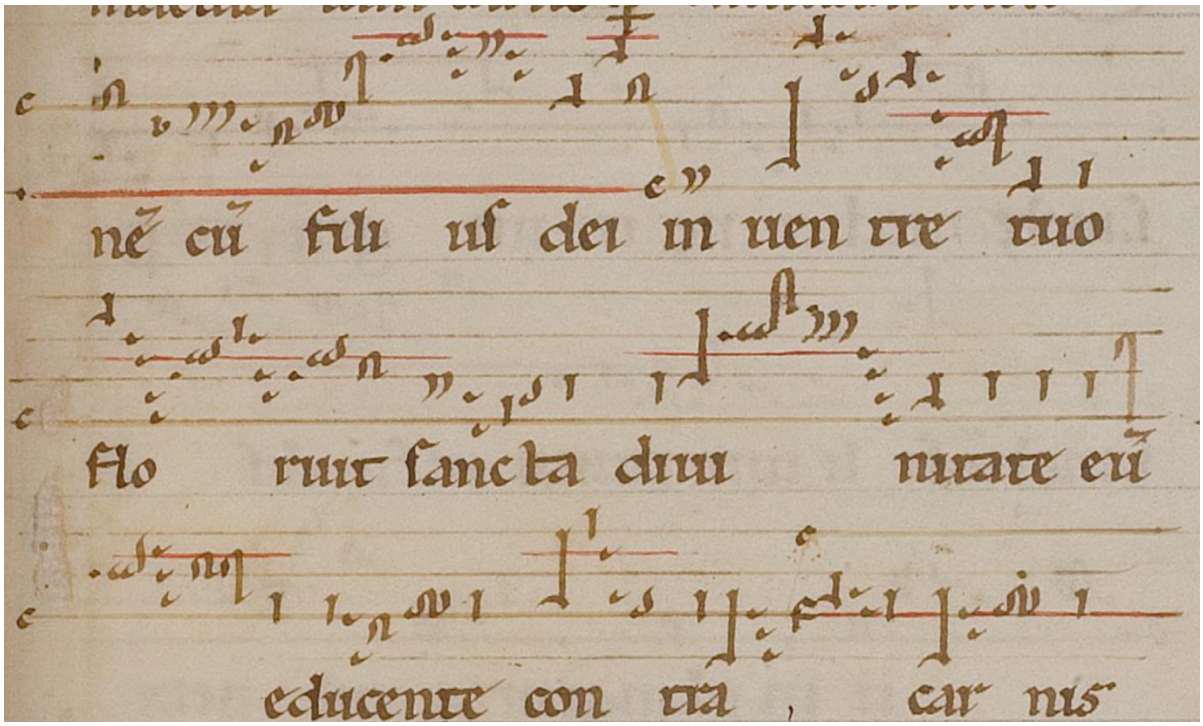
relationships in "O vos angeli," but not with "O tu illustrata"? The reason behind this must be that "O vos angeli" is modally more understandable than "O tu illustrata."

Modally, this chant is not totally normal – it is in E mode, but uses b-flat – but the cadences are more understandable. In an elegant analysis of "O vos angeli," Tova Leigh-Choate, William Flynn and Margot Fassler have shown that each phrase cadences with a fa-mi cadence in Dendermonde (i.e. from f to e, c to b, b-flat to a, etc.). In the Riesencodex, which has fewer b-flats marked, some of these are b to a cadences, but given the fa-mi cadence consistency, it is likely that the scribe should have written b-flats in these moments and the cadences should be b-flat to a instead.[39] The repeated fa-mi cadences hold the piece together and make it modally believable. In this context, it makes sense that "O vos angeli" is usually transcribed as written, while "O tu illustrata" is often not.

5. "O tu illustrata"

5.1 The Problem

The particularly objectionable moment in "O tu illustrata" in terms of range is a section in the verse, where the melody extends up to dd on the word "ventre." Here is this section in the Riesencodex, f. 467r:



[39] Leigh-Choate, Flynn, and Fassler, "Hearing the Heavenly Symphony: An Overview of Hildegard's Musical Oevre with Case Studies," 182.

In the transition from the c at the end of "dei" to the d on "in," it is at first glance unclear which octave is meant when the clef changes. Is the c one step up from the d, or a seventh down? Until the next clef change on the words "contra carnis," either solution is possible to imagine. The note before the clef change is a, and after the clef change is g, giving the choice between a seventh up or a step down. In both these clef change moments, it is more plausible that there would be stepwise motion rather than the leap of a seventh. This is especially true for "contra carnis," as the melody here has been mostly in stepwise motion, with leaps contained within *pes* neumes.

While not immediately apparent, there is a faint clue in the manuscript as to which octave is meant. Throughout the Riesencodex, the F line is indicated with red ink, and the C line is indicated with a faint, almost transparent extra line of yellow or light brown ink. This ink is a slightly lighter color than the ink used for the staff lines, and the line is also slightly thicker. The C line is layered on top of the existing staff lines, and when the clef changes, there is a line of this light ink connecting the old C line to the new C line. At the clef change right before "in ventre," there is a light brown (and rather thick) line connecting the old C line down to the new C line, making it clear that "in ventre" is indeed intended to expand into the upper octave. The thickness of this line between the clefs is perhaps especially an indication that the high notes are really what is meant, as the other clef change in "contra carnis" has only a very thin line connecting the clefs.

Is the written version so crazy? Considering that "O vos angeli" is even slightly larger in range, it seems like the Riesencodex version of "O tu illustrata" should not be ruled impossible on the basis of range alone. Indeed, the Barth, Ritscher, Schmidt-Görg edition keeps this 19th range for "O vos angeli," with no notes in the critical apparatus about the exceptional range,[40] whereas "O tu illustrata" is deemed "Teilweise zum Singen unmöglich" ("Sometimes impossible to sing") and so is transposed down an octave for the highest moment of the piece on "in ventre."[41] The editors do note that their edition is an octave down from what was written at this point, but unless you read the critical apparatus, which is a separate volume, you would not know this just from the edition. The edition does not simply jump up an octave at another point, but instead makes incremental changes to the pitch level of the melody so that the verse finally "correctly" ends on D protus, the final in the beginning of the antiphon, rather than b deuterus. The objection to the large range also allows for changes to the melody which bring it back into a more normal modal world, where the beginning and

[40] Ritscher, *Kritischer Bericht Zu Hildegard von Bingen*, 23–24.
[41] Ritscher, 55.

end of the antiphon have the same final. (See Appendix 4 for a comparison of the differences between this edition and the Riesencodex.)

To see if this modal tampering is justified by an uncredible melody, let's examine "O tu illustrata" as written. Because it is only in the Riesencodex, and not in Dendermonde, there is unfortunately no supporting testament to what Hildegard might have meant in moments where what is written might be questionable. Does this version in the Riesencodex make sense modally? Despite its irregularities, does it contain an internal logic that would allow us to believe that this could be what Hildegard intended?

5.2 Modal Analysis of "O tu illustrata"

"O tu illustrata" is one of Hildegard's earlier works, and it must have been composed before 1153, as it is mentioned in a letter dated to before that year (Letter 192).[42] Its range of an 18th is second only to "O vos angeli" in Hildegard's works. Thematically, the chant addresses Mary, contrasting her purity with Eve's contagion. The 12th and 13th centuries saw a flowering of antiphons to the Virgin Mary, and this chant is one of sixteen chants by Hildegard dedicated to Mary.[43] In terms of genre, this chant is unique within Hildegard's repertoire – it is an antiphon, but uniquely an antiphon with a verse. Verses are ordinarily associated with responsories rather than antiphons, which are usually followed by psalms rather than verses. While it is unusual to find antiphons with verses in the Gregorian chant repertoire, there are a few that exist,[44] and they were often used as processionals.[45] Throughout my discussion, I will refer to the first part of the antiphon as "the antiphon," and the verse as "its verse." For a scan of this chant in the Riesencodex, see Appendix 2.

The text and its translation by Barbara Newman are as follows:[46]

O tu illustrata	O you who are illumined
de divina claritate	by the divine radiance,
clara Virgo Maria	radiant Virgin Mary,
Verbo Dei infusa,	suffused with the Word of God,
unde venter tuus floruit	whence your womb blossomed
de introitu Spiritus Dei,	from the entrance of the Spirit of God,
qui in te sufflavit	who breathed upon you
et in te exuxit	and, within you, sucked out
quod Eva abstulit	what Eve bore away
in abscisione puritatis,	in the breach of purity,
per contractam contagionem	through the contagion contracted

[42] Meconi, *Hildegard of Bingen*, 48.
[43] Hiley, *Western Plainchant*, 104.
[44] Huglo and Halmo, "Antiphon."
[45] Richert Pfau and Morent, *Hildegard von Bingen*, 73.
[46] Hildegard of Bingen and Newman, *Symphonia*, 136–37.

de suggestione diaboli.	from the Devil's suggestion.
V. Tu mirabiliter abscondisti in te inmaculatam carnem per divinam racionem, cum Filius Dei in ventre tuo floruit, sancta divinitate eum educente contra carnis iura que construxit Eva, integritati copulatum in divinis visceribus.	V. You wondrously hid within you immaculate flesh through the divine reason, when the Son of God blossomed in your womb, holy divinity bringing him forth against the laws of the flesh that Eve built, coupled to integrity in the divine bosom.

The issue of b-flat versus b-natural should briefly be discussed before talking about mode further, as whether a b is flat or natural impacts the mode. The Riesencodex often lacks b-flats which are in corresponding moments in the Dendermonde manuscript, flats which would help the melody make more sense modally (the b-flat and b-natural differences in "O vos angeli" between the two manuscripts provide an example of this), so it is unfortunate that "O tu illustrata" is not in Dendermonde. Some b-flats in "O tu illustrata" are clearly marked, but other moments are not so clear. b-flat markings are provided towards the beginning of the line, by the first instance of a b-flat in the line. Given that b-flat signs are not reiterated on a line, it can be assumed that they apply for the whole line. However, that there are not written b-quadrata to indicate a shift to b-natural calls this assumption into question, as it would seem that the melodic segments that happen to share a line must sometimes have both b-flat and b-natural. Given these ambiguities, the editor and performer must apply their own discretion at these moments. In Vincent Corrigan's edition, he only indicates written flats. He provides no information about where the changes of line happen in the manuscript, so it is difficult to know where b-flats might have been implied. For this reason, I have prepared my own edition of "O tu illustrata," annexed as Appendix 3. I have tried to respect the manuscript as much as possible, but there are some moments of ambiguity, and I used my best judgment in these moments. My b-flat/b-natural suggestions are only one possible solution, but I will use my suggestions for this analysis.

This chant as notated is strange and does not adhere to the normal rules of how a chant should behave. The antiphon begins in one mode and ends in another, and the verse begins in one mode, and ends in the same mode, but transposed to a different note. Along the way the melody flirts with other modes and pitch centers. This variability often (but not always) reflects shifts in the text, which sets up the dichotomy between the radiant Virgin Mary and God on the one hand, and Eve and the Devil on the other.

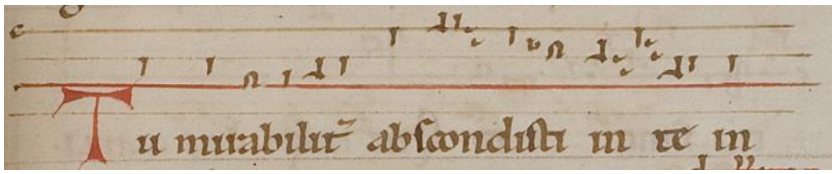
The piece begins with a repeated g to a motive that rises up to c before returning to a via b-flat. This first musical phrase plays out over "O tu illustrata," and this same musical material is reused in "de divina" and again in "claritate." The beginning of "O tu illustrata" is characterized by melodic repetition, which gives a sense of stability. The phrase "clara Virgo Maria" begins again with this g to a motive, but dips down and cadences on D. The beginning of the piece could be seen as a deuterus mode on a, but the D cadence on "Maria" enforces a D protus feel. The chant stays in the plagal range for this next section, with words repeatedly starting with a fifth from D to a and dipping down to A. Here again the musical phrases are repeated in pairs with small variations: "Verbo" and "Dei"; "infusa" and "unde venter"; "tuus floruit" and "de introitu" (with the musical material repeated twice in the latter phrase). The music for the next words, "Spiritus Dei" is the same as that for "infusa" and "unde venter." The next musical phrase pair on "qui in te" and "sufflavit" are variations of the "Verbo" melodic formula but reach up to c. With the end of "sufflavit" comes also the end of these melodic repetitions, which accompanies a shift in the text after this point. Up until now, the text has dealt with the "radiant" Virgin Mary, talking about how her "womb flowered from the entrance of the Spirit of God, who breathed in [her]." After this point, the text switches to talk about Eve instead, and the "contagion contracted by the suggestion of the devil."

With the textual change comes the beginning of a shift in the modal center – the phrase "te exsuxit" ends on E rather than D. It still feels like D is the final at this moment, and that E is setting up a cadence to D, but this cadence is thwarted in the next phrase. This E foreshadows the future departure from what has been up to now a stable D mode, a departure that is mirrored in the changes of the nature of the melodic material.

In the first part of the chant, the repetition of melodic segments was almost identical, but from now on, while there are still repeated melodic ideas, the repetitions often will contain more variation and development. The next phrase of text on "quod Eva" has echoes of the "te exsuxit" melodic material, but draws it out and cadences on a rather than E. This a has a b-flat above it, making the mode deuterus on a. This a remains the central tone through "abstulit," but at the end of "in abscisione puritatis," g is now the central tone, now with a b-natural and a plagal tetrardus feel. This lasts until the E that comes at the end of "per contractam contagionem." E as the final is reinforced by E to b and b to e leaps, *apostrophae* on e, the open cadence on b at the end of "suggestione," and the cadence to E on "diaboli" at the end of the antiphon. The unusually dramatic leap of a sixth down to D from b for the word "diaboli" is a pronounced moment of text painting, with this final cadence on E

deuterus mode, associating this mode (which had already been associated with Eve) with the devil.

The verse begins on a, which is its tonal center. Right away from the beginning of the verse there is a question about the quality of the b's – are they flat or natural, or some flat and some natural, and if so, which should be flat and which natural?



The c-b-c figure in "abscondisti" has no indicated flat, and the flat sign comes after, right before the b-a *clivis*. This suggests that the first b on the line should be natural, but this second one flat. The other b's on the line are all leading down to a rather than up to c, so it would seem that the flat does carry though the line. The predominance of the b-flat in this reading suggests deuterus, though the b-natural in the c-b-c moment implies a protus inflection, an inflection possible because it is notated at the affinity position of a (more on the affinities later). Already from the outset of the verse, we can see that it is not going to play by the textbook rules of mode.

This a deuterus mode stays through "carnem," and then with "per divinam racionem" the final moves to c with a plagal tetrardus feel through "cum Filius Dei." This local tetrardus section is an interesting echo of the tetrardus section at "per contractam contagionem" in the antiphon, especially considering that the rest of the sections stay within the protus/deuterus world and that only a few of Hildegard's pieces are in this mode. At "in ventre," the modal center again shifts to d protus, with the d-c motion at the end of the previous phrase functioning both as a cadence on c and a lower neighbor to the d mode of the next section. "Floruit" cadences on e, ending the d mode section, and starting a new section in e deuterus that is stable through "divinitate" and before transitioning back to d protus in "eum educente." The next phrase, "contra carnis jura" cadences on a. There is an absence of b-flat indications in this section of the piece, and so this a has a protus quality. This phrase refers to Eve, and at this moment the melody dips down to D on "carnis" ("flesh") the lowest note of the verse, a contrast to the dd of "ventre" ("womb"). This contrast is the ultimate text-painting, with the flesh associated with Eve being the lowest note in the verse, and the all-important, immaculate womb of Mary elevated to the highest. "Que construxit Eva" stays in this protus on a until "Eva," when it cadences on b, which the verse keeps as the tonal center through the end.

Let's summarize the modal windings of the antiphon and its verse (all note names given in capital letters here):

"O tu illustrata"	**V. "Tu mirabiliter"**
(A deuterus)	A deuterus (protus inflection)
D protus	C tetrardus
A deuterus	D protus
G tetrardus	E deuterus
E deuterus	D protus
	A protus
	B deuterus

The antiphon has far fewer shifts than its verse, and these shifts come only with the introduction of the concept of Eve into the text. The antiphon is solidly in D protus before the introduction of Eve, and then travels through various tonal centers with different phrases. Structurally, the beginning of the antiphon hinges on phrases that are repeated almost exactly, and as Eve is introduced, the melody loses the stability of this repetition. In the verse, there is not such a shift at the mention of Eve, and Hildegard confers upon "Eva" almost the minimum number of notes (only three notes for the two syllables), whereas in the antiphon she accords "Eva" a long melisma. Textually, it makes sense to make less of an ado about Eve in the verse, as she is only mentioned as part of a clause describing Jesus's birth ("holy divinity bringing him forth against the laws of the flesh that Eve constructed"), whereas in the antiphon she takes up the whole last section ("and in you sucked out what Eve took away in the breach of purity, through the contagion contracted by the devil").

Looking at the antiphon alone, I would be tempted to say that this modal instability is associated with Eve, and while that may be true for the antiphon, that does not also correspond to the verse. The verse praises Mary, and is even more modally unstable than the antiphon, with the instability coming from the very beginning. Text and music are linked in Hildegard's works, as we have seen in a few choice moments from this piece already, so is there a textual purpose that these modal shifts could be serving? Indeed, the shifting of the final from a to c and then to d in the beginning of the verse ratchets up the energy and sense of expectation, so that the "in ventre" moment is the apex of the piece. The modal shifts after this moment are not always so dramatic, but they do maintain a sense of excitement, of not knowing what is coming next. Each shift is for a new section of text, and there is something powerful about this traveling through these different modes and pitch centers, as if showing

how Mary is all-encompassing. Verses are sections that would often be sung by a soloist, and so it is possible that these shifts are also a sort of modal virtuosity, twinned to the vocal virtuosity of the D to dd range, making for a stunning acclamation of the Virgin Mary's exceptionality.

Hildegard's pieces are usually more modally regular and predictable than "O tu illustrata," but is that a reason to dismiss the notes on the page as unintended? I would say no. The surprises often serve textual purposes. The shift from D protus to E deuterus in the antiphon mirrors the shift from talking about Mary to talking about Eve and the devil. This shift is repeated in the verse, which goes from a deuterus (with a protus inflection) to b deuterus. The highest and lowest sections in the verse on "ventre" and "carnis" again highlight the dichotomy between Mary's goodness and Eve's base nature. That there is a section in tetrardus in both the antiphon and the verse in what is otherwise a protus/deuterus mix seems too random to not be deliberate as well. There is a movement from modal and melodic stability in the beginning of the antiphon towards more instability, an instability which is continued throughout the verse to dramatic effect. That there are more modal shifts and a greater range in the verse would also make sense in the context of a particularly extraordinary soloist praising a particularly special lady. As this is one of Hildegard's earlier pieces, perhaps she was more adventurous in this piece than in others. If she was unlearned in music, as she claimed, this could have been a piece where she was going more with her instinct rather than sticking to the rules of modal theory. It is adventurous and odd, but it does have an internal logic, and the oddness does seem to serve the text. In any case, it seems uncalled for that the vast majority of recordings should choose to change the notes so dramatically.

5.3 Editions and Recordings

But what of this Barth, Ritscher, Schmidt-Görg edition that has been so influential – how do the changes it makes create a different reading of the music? In Appendix 4, I have provided a comparison of the Barth, Ritscher Schmidt-Görg edition to the notes in the Riesencodex. I have only provided the phrases where the notes have been changed, with the Barth, Ritscher, Schmidt-Görg edition on the top line, and the Riesencodex version on the bottom line.

The Barth, Ritscher, Schmidt-Görg edition irons out most of the shifts in mode, creating a much more regular and normal-sounding chant. In the antiphon, the changes enforce a D protus mode, obliterating the shift to E deuterus. This reading is satisfying in that

it stays in the same mode throughout, but there is a particular moment of melodic repetition that is disturbed by this change. In the original, "puritatis," "contractam" and "contagionem" all have similar melodic figures that rise up to d, but in the edition's altered version, this melodic echo is lost. The verse is also brought back to D protus at the end, and again, most moments seem believable enough when the original version is not known. However, the two most dramatic moments in the original version completely lose their power in the altered version: the rise up to dd on "ventre" is dropped down the octave, and the melodic journey downwards on "contra carnis" is partially transposed up. These are such focal points in the original version, but without going up high for "ventre" or low for "contra carnis," these moments no longer have the same power. What is especially strange about the "in ventre" moment in the edition is the jump down of a seventh – it is awkward and not at all idiomatic. The editors did recognize the awkwardness, but Ritscher notes in the critical apparatus that this leap was unavoidable because of the necessity of transposing this section down due to the range.[47]

Marianne Pfau uses this edition as a basis for her own.[48] As she states in the introduction to her edition of "O tu illustrata," "[Hildegard's] melodies frequently return to the final and the fifth, and hardly ever to other scale degrees."[49] Pfau's edition certainly brings "O tu illustrata" more in line with this view by increasing the number of cadences on D, but this logic seems circular. While Pfau's observation is true for most of Hildegard's works, it is not true for "O tu illustrata," unless "O tu illustrata" is edited to fit into this mold, as Barth, Ritscher, Schmidt-Görg and now Pfau have done. Pfau also collaborated with Stefan Morent on a book on Hildegard and her music entitled *Der Klang des Himmels*, and the chart of the ranges of Hildegard's pieces in this book lists the range as a 14th from A to g, rather than an 18th, aligning with Pfau's edited version rather than the actual notes in the Riesencodex. It also lists the mode as D, rather than E (which is how Corrigan lists the mode)[50] or D/E, again in accordance with her edition.[51] It also seems possible that Pfau in her thesis relied heavily on the Barth, Ritscher, Schmidt-Görg edition rather the manuscripts when analyzing the Hildegard pieces in her thesis. While she does mention differences between the Riesencodex and Dendermonde in terms of b-flats,[52] meaning she must have looked at the manuscripts,

[47] Ritscher, *Kritischer Bericht Zu Hildegard von Bingen*, 55.
[48] Hildegard von Bingen, *Chants for the Blessed Virgin Mary: Mother and Son*, II:39–42.
[49] Hildegard von Bingen, II:Introduction.
[50] Hildegard of Bingen and Corrigan, *Symphonia*, xxviii.
[51] Richert Pfau and Morent, *Hildegard von Bingen*, 179.
[52] Pfau, "Hildegard von Bingen's Symphonia Armonie Celestium Revelationum: An Analysis of Musical Process, Modality, and Text-Music Relations," 177.

she also says, "It is symptomatic that the largest ranges within the antiphon genre occur in pieces for the angels, the apostles, and the patriarchs and prophets."[53] "O tu illustrata" is the antiphon with the largest range, and it is dedicated to Mary. That she does not recognize this suggests that she relied on the Barth, Ritscher, Schmidt-Görg edition for her analysis of at least "O tu illustrata."

As I mentioned before, most of the recordings follow the Barth, Ritscher, Schmidt-Görg version. Pierre-F. Roberge has compiled a list of all the recordings (as far as he knows) of Hildegard's works.[54] There are thirteen recordings of "O tu illustrata" listed on this site. Of the thirteen listed, I have been able to listen to twelve. The following is a table with some basic information about the performance decisions in each of these recordings:

Artist	**Version**	**Year**	**First pitch**	**Form**	**Soloist or group?**	**Instruments?**	**Notes**
Cosmedin - Stéphanie Haas, Christopher Haas[55]	Barth et al.	2005	A4	antiphon + verse	soloist	yes	
VocaMe, Michael Popp[56]	Barth et al.	2013	G4	antiphon + verse ("O tu illustrata … Maria" returns as a refrain)	group + solo moments	yes	
Ellen Oak[57]	Barth et al.	1995	G4	antiphon + verse	soloist	no	does not use editorial b-flats
Musica Sacra, Richard Westenberg[58]	Barth et al.	1995	G4	antiphon + verse	group	no	
Sinfonye[59]	Barth et al.	1995	G4	antiphon + verse	soloists + group (soloist for verse)	no	
Ensemble für frühe Musik Augsberg, Sabine Lutzenberger[60]	Barth et al.	1997	G4	antiphon + verse	soloist	yes	
Sequentia[61]	Unique version, keeps D final	1997	D4	antiphon + verse	group + solo moments	yes	D drone throughout, phrases often transposed to D protus - moment of D deuterus at the end
Catherine Braslavsky, Joseph Rowe[62]	Barth et al.	2007	Eb4	antiphon, no verse	soloist	yes	
Hesperus[63]	Unique instrumental version - highly ornamented	1998	A4	antiphon, no verse	solo hammer dulcimer - no vocals	yes	leaves out some sections of the melody that stray from D protus, keeps D final at end

[53] Pfau, 131.
[54] Roberge, "Hildegard von Bingen - A Discography."
[55] Cosmedin, Haas, and Haas, *Seraphim*.
[56] VocaMe and Popp, *Inspiration*.
[57] Oak, *The Harmony of Heaven*.
[58] Musica Sacra and Westenberg, *Monk and the Abbess*.
[59] Sinfonye, Stevie Wishart, and Oxford Girls' Choir, *Symphony of the Harmony of Celestial Revelations - The Complete Hildegard von Bingen*.
[60] Ensemble für Fruhe Musik Augsburg, Lutzenberger, and Hildegard von Bingen, *Göttliches Licht: Antiphone & Psalmen*.
[61] Sequentia, *O Jerusalem*.
[62] Braslavsky and Rowe, *Marriage of the Heavens and the Earth*.
[63] Hesperus, *Luminous Spirit*.

Jocelyn Montgomery, David Lynch[64]	Barth et al.	1998	F#4	antiphon + verse	soloist	yes	
Tiburtina Ensemble[65]	Barth et al.	2017	G4	antiphon + verse	soloist	yes	
Tapestry, Laurie Monahan, Cristi Catt[66]	Riesencodex	1997	G4	antiphon + verse	soloist + group	no	quite literal, not even adding some b-flats that would avoid melodic tritones

The one recording listed that I was not able to access was by Mora Vocis. Nine of the twelve recordings use the Barth, Ritscher, Schmidt-Görg edition, demonstrating the influence this edition has had on the recordings of "O tu illustrata," with only the recordings by Hesperus, Sequentia and Tapestry not using it.

The recording by Hesperus is somewhat of an exception because it is played on the hammer dulcimer rather than sung and is more like an instrumental fantasy. It is possible that the Barth, Ritscher, Schmidt-Görg edition was used as the basis, but the version is so highly ornamented that it is difficult to tell. This version only includes the antiphon and not the verse. In the verse, the phrase "quod Eva abstulit" is missing, which is the phrase that would lead the melody away from D protus to E deuterus. Like the Barth, Ritscher, Schmidt-Görg edition, this version maintains the D protus mode through the end, rather than moving to E deuterus.

The Sequentia recording provides a unique solution. Like the Barth, Ritscher, Schmidt-Görg edition, it keeps D protus as the final at the end of both the antiphon and verse, and the changes that are made in the melody often fit it into this D protus mold. A D drone is maintained throughout the recording, reinforcing the stability of the D. The solutions for several of the lines are essentially the same as those of the Barth, Ritscher, Schmidt-Görg edition, but there are many differences as well. One of the most striking is the very beginning: the Sequentia recording transposes the whole first section down a fifth, so that D is the final, changing the notes on "Virgo" so that "Maria" still cadences on D when the melody dips down. There are several other similar moments where the phrases have been melodically altered so that they end on D and match the D drone. There are, however, nods to the modal irregularities of the Riesencodex original, mainly in that the modal quality shifts between protus and deuterus. Most of the chant is sung in protus, but the very beginning is deuterus because of the signed b-flat (which is sung as Eb because of the transposition). In the penultimate line, "integritati copulatum," Eb is introduced, also giving this line a D deuterus mode. Still, E natural is reintroduced in the last line, "in divinis visceribus," so that the piece

[64] Montgommery and Lynch, *Lux Vivens - Living Lights*.
[65] Tiburtina Ensemble and Kabátková, *Hildegard von Bingen: Ego Sum Homo*.
[66] Tapestry, Monahan, and Catt, *Hildegard von Bingen: Celestial Light*.

ends in D protus. The stability of the D final throughout this version makes the recording a convincing interpretation, and it is a beautiful recording done with lovely voices making for a pleasant listening experience. However, I find the textual setting less satisfying than the Riesencodex version, as the "in ventre" and "contra carnis" moments lose their drama just as they do in the Barth, Ritscher, Schmidt-Görg edition, and I find the modal stability less interesting than the Riesencodex's modal twists and turns.

Only the recording by Tapestry uses the notes as written in the Riesencodex. However, Tapestry takes the manuscript too literally at times, not even adding b-flats to avoid melodic tritones on "quod" in the antiphon and "ventre" and "floruit" in the verse. Nevertheless, it is notable that only one recording uses the notes in the Riesencodex, maintaining the most striking aspects of this piece – the incredible 18th range, the modal irregularities and the dramatic text setting of the "ventre" and "carnis" moments. The "ventre" moment reaches D6, and this recording is a case in point in and of itself showing that it is possible to sing this piece as written.

The "O tu illustrata" recordings as a whole show the great influence of the Barth, Ritscher, Schmidt-Görg edition, and perhaps reveal the blind faith the performers placed in this edition. This faith was not unfounded, as the editions of the other pieces seem quite good. Flipping through this critical apparatus, I have not noticed any other pieces in which the notes were altered as much as "O tu illustrata." However, many performers may not have had access to the critical apparatus, as it was also published as a separate volume.[67] Additionally, the recordings may have treated this piece differently had the performers had more ready access to the facsimile. Only recently have digital scans of the Riesencodex and Dendermonde become widely available online, and the Riesencodex facsimile was only published in 1998,[68] after 8/12 of these recordings were made.[69] It is not that the Barth, Ritscher, Schmidt-Görg edition is an implausible version – it and the Sequentia version are plausible readings for what medieval people might have done with this chant, given its large range and the modal issues. In the 12th century, the Cistercians regularized many chants, bringing them into conformity with the modal theory of the day, which prescribed an octave range for chants and that chants should stick to their mode. The Cistercians reduced the ranges of chants if they strayed too far and changed the finals or certain sections of chants to

[67] The critical apparatus is Ritscher, *Kritischer Bericht Zu Hildegard von Bingen*.
[68] Hildegard of Bingen, Welker, and Klaper, *Lieder*.
[69] The Gmelch study of Hildegard's works was published in 1913 and had a facsimile, but the facsimile was in black and white and was very small and hard to read.

keep them within the same mode.[70] In this context, the emendations in the Barth, Ritscher, Schmidt-Görg and Sequentia versions are legitimate, historically-informed possibilities for a reproduction of what a medieval singer might have done with this piece.

However, if we are interested in what Hildegard meant, it seems that we should take the notes on the page instead. The transmission of Hildegard's pieces is very consistent between Dendermonde and the Riesencodex for pieces that are in both, so she seems to have been very intentional about the notes on the page.[71] While "O tu illustrata" is weird, as we have seen, there are textual reasons for the irregularities of both mode and range that make it plausible as what she intended.

5.4 Transposition of the Verse

There is one further avenue to examine to see if the range could be reduced. In his edition, Corrigan suggests transposing the verse down a fifth. The antiphon's range is A-gg and the verse's range is D-dd, so transposing the verse down a fifth would put the verse in the same range as the antiphon and bring the total range to a 15th, G-gg. It would also mean that both sections end on the same final,[72] and that the verse makes the journey from D to E as the antiphon.

But why would the verse be notated on a when it was supposed to be sung on D? This is where the concept of the affinities is useful, so a brief explanation of the affinities is in order before going further. As medieval music theorists began to develop a music theory to describe the chant repertory, they had to find ways to fit these chants within their newly-developed modal system. Most chants did fit into the eight-mode system, but there were exceptions which had qualities of more than one mode, and therefore would require accidentals such as F-sharps or E-flats, accidentals that did not yet exist in their music theory. (The only accidental allowed in the modal theory treatises at this time was b-flat/b-natural.) The theorists used the concept of the affinities to fit these aberrant chants into their system.

The affinities are the notes a fifth above or fourth below the finals of the modes, which have the same tonal relationships to the notes around them: D and A (whole step below, whole step then half step above), E and B (whole step below, half step then whole step above), F and C (half step below, two whole steps above), G and D (whole step below, whole step above). The relationship between G and D is not as strong as the other affinities relationships,

[70] Atkinson, *The Critical Nexus*, 245.
[71] Pfau, "Hildegard von Bingen's Symphonia Armonie Celestium Revelationum: An Analysis of Musical Process, Modality, and Text-Music Relations," 133.
[72] Hildegard of Bingen and Corrigan, *Symphonia*, 27.

as above G there are two whole steps, while above D there is a whole step then a half step. Although the concept of the affinities was related to transposition, it concerned not actual sounding pitches, but rather how the chant was notated. Chants could be notated up a fifth from where they were written with the affinity as their final, which would allow for irregularities to be notated within the diatonic system. This was called *transpositio*. Chants could also be notated up a fourth instead through the use of the b-flat, a process referred to as *transformatio*. With a b-flat, the finals for each mode were: g for protus, a for deuterus, b-flat for tritus, c for tetradus. Not all theorists approved of *transformatio*. Guido, for instance, did not. He preferred that chants be notated without the b-flat whenever possible (and thus he was a proponent of *transpositio*), though he recognized that when the b-flat is used, it "transforms" the affinity at a from protus to deuterus.[73]

Many of Hildegard's chants are notated at the affinities of a and c, which allows for the use of both the b-flat and b-natural. On a, this allows for going between protus and deuterus qualities, and on c between tritus and tetrardus. Marianne Richert Pfau has noted that Hildegard's chants on D, E and a act similarly to each other, as do the chants on G and c.[74] The use of a and c as finals indicates that Hildegard was aware of the benefits of using the affinities to notate the chants that mixed aspects of different modes, or at least the scribes notating her chant were. In the case of "O tu illustrata," notating the verse on a rather than D allows for shifting between modes that would not be possible if the chant were located at D. Given how modally adventurous the verse is, Hildegard would have needed to notate it here in order to be able to make the desired modal shifts in the verse.

Are the transitions between the antiphon and the verse, and then back to the antiphon material modally believable a fifth down? This is Hildegard's only antiphon with a verse, but she wrote many responsories. We can look to them to see how Hildegard normally transitions between responsory, verse and respond:

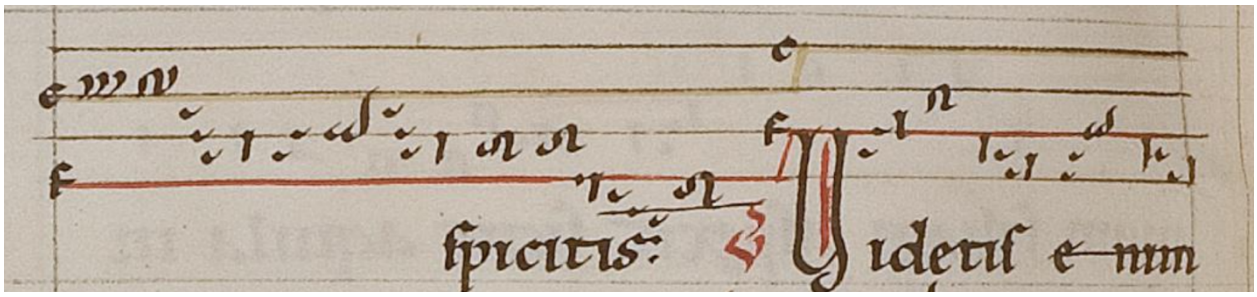
Title	**Beginning of Responsory**	**End of Responsory**	**Beginning of Verse**	**End of Verse**	**Beginning of Responsory Repetition**
O vis etarnitatis/O quam magna/Gloria Patri	E	E	E	E	b
Ave Maria O auctrix/O dulcissima/Gloria Patri	c	c	c	c	gg
O clarissima mater/O vivificum instrumentum/Gloria Patri	c	c	c	c	c
O tu suavissima virga/Nam mistico/Gloria Patri	a	a	a	a	a
O quam preciosa/Unde dulce germen	D	D	D	D	D

[73] Pesce, *The Affinities and Medieval Transposition*, 1–3.
[74] Pfau, "Hildegard von Bingen's Symphonia Armonie Celestium Revelationum: An Analysis of Musical Process, Modality, and Text-Music Relations," 134–36.

O vos angeli/Videtis enim	E	D/E	E	E	a
O vos felices/Gaudete in illo	E	E	E	E	E
O lucidissima apostolorum/Agnus enim inmaculatus	g	g	g	[b]/g	gg
O dulcis electe/Tu enim anxisti	E	E	E	E	E
Vos flores rosarum/Sit honor in consortio	C	C	C	C	C
O vos imatores/Nam et angelici	c	c/[b-b]	c	c/[b]	gg
O viriditas digiti Dei/Et o altitudo montis/Gloria Patri	b	b	b	b	a
O felix anima/Spiritus sanctus/Gloria Patri	E	e	E	E	D
O nobilissima viriditas/Tu rubes ut aurora	C	C	C	C	g?
Favus distillans/Unde in nobilissima/Gloria Patri	a	a	a	a	g
Spiritui sancto/Nam iste castissimus/Gloria Patri	a	a	a	a	e
Rex noster promptus/Tirannus autem/Gloria Patri	D/E	E	E	E	b
O Euchari columba/Et sic in pectore	E	E	E	E	b

Table of Initial and Final Pitches of Responsories, Their Verses, and the Responsory Repetition
This table was prepared using Vincent Corrigan's edition of Hildegard's *Symphonia*. It shows the pitches of the beginning and ending of the responsories and their verses, as well as the starting pitch for the respond. Slashes indicate differences between Riesencodex and Dendermonde, with brackets indicating potential transcriptional errors. A question mark indicates when the beginning of the respond is not known for certain.

The transitions between the end of the responsory and the beginning of the verse are almost all on the same pitch. One interesting potential exception is "O vos angeli" in the Riesencodex, which transitions from D to E (Riesencodex, f. 468a):



Whether D or E was meant is debatable, but the *torculus* before the verse does seem to have a lower last note than first note, and the added D-line seems to show that D was meant. This would mean that even though "O vos angeli" is in E, the respond ends on D, a step below the starting note of E in the verse.

In the transition between the verse and respond, the same pitch is again the most common, but there is more variation. A leap of a fifth is also common, and "O vos angeli" is again a stand-out with a leap up of a fourth from E to a. Given the importance of a in E mode, this is perhaps not so unexpected as an exception. "O viriditas digiti Dei," "O felix anima," "O nobilissima viriditas" each go down by a step in this transition. The overwhelming majority of these pieces are very consistent though – the starting and ending notes of the responsory and verse are almost uniformly the same for each of the chants. "O tu

illustrata" does appear to be a special exception amongst Hildegard's chants: it begins on a note that is not the final (either of the beginning or the end), and both the antiphon and verse begin in one mode and end in another.

Before we can apply this knowledge to the antiphon "O tu illustrata," first we need to try to figure out where to return to in the antiphon. David Hiley mentions that antiphons with verses would repeat part of the antiphon or the whole antiphon after the verse,[75] but unfortunately the Riesencodex offers no clue as to where to return after the verse, or even whether a return is intended at all. All the recordings I listened to ignore this issue and finish at the end of the verse, and some even avoid the verse entirely. Textually, there does not seem to be a section towards the end of the antiphon that would work well directly after the verse, so the best option seems like returning to the very beginning.

In the untransposed version of "O tu illustrata," the transition between the antiphon and verse goes from E to a. While unusual, given the "O vos angeli" transition between the verse and the respond, it is not unreasonable. The transition between the end of the verse and the beginning of the antiphon is technically a third (b to g), but because the g is just a neighbor tone to a, it is more like a step, which is also seen in a couple responsories. Both of these transitions are plausible, if somewhat exceptional. Given that the finals of both the antiphon and verse both move up a step, these transitions will necessarily be somewhat irregular.

Now for the transposed version – for an edition with the verse transposed down a fifth, see Appendix 5. Between the antiphon and the verse, the melody goes a step down, which is somewhat awkward, but given "O vos omnes," is not out of the realm of possibility. The other issue is that the E-flat is introduced within the first line, which is a bit awkward considering that E was the final of the antiphon, though it happens far enough into the phrase that it is not too disruptive. This moment is softened too if the first E in the line (written b in the manuscript) is natural as is suggested by the placement of the flat sign. After this first phrase, we have aurally transitioned to the new modal center and the newly established pitch relationships sound normal and are not so problematic, especially given that the verse wanders so much modally anyways. The transition between the end of the verse and the beginning of the antiphon is even less problematic than the transition between antiphon and verse. Transposed down a fifth, the end of the antiphon has no accidentals, so the diatonic relationships between the notes are the same at the end of the antiphon as for the beginning

[75] Hiley, *Western Plainchant*.

of the verse. The transition is from E to g, which is a third, but again, because g is a neighbor tone to a, it is more like transitioning from E to a, like the transition in "O vos angeli."

Solely based on the transitions, both options are plausible. The fifth down is slightly more awkward in the beginning of the verse due to the introduction of the E-flat right after the cadence on E in the end of the antiphon, but given the modal shifts in the verse, this is not so unreasonable. But there are other considerations when thinking about determining the pitch of the verse. One possible argument against transposing is that the reciting pitch is a in the beginning of both the antiphon and the verse. One argument for transposing is that it provides direct symmetry in the voyage from D to E in both antiphon and verse. In terms of what Hildegard may have intended, either doing the verse as written or a fifth down both seem equally reasonable.

How does one then decide where to pitch the verse? The pitching of the verse ultimately should depend on the singer, according to the singer's abilities and preferences. There was no standard pitch in medieval times, and medieval sources usually advocate for chants to be pitched within a middle range.[76] When it comes to pitching a chant, the 13th-century music theorist Jerome of Moravia recommends that singers should take care that, "they always start not too low, which is to shout, and not too high, which is to cry out, but moderately, which is to sing, precisely so that the chant not be led by the voice, but rather the voice by the chant."[77] Theorists also usually recommend that the total range be restricted to an octave, in accordance with the modal theory of the time. [78] For most singers, the more comfortable range would mean transposing down the fifth, because it would keep the chant range within the right octave. But potentially for some singers, singing in the higher register might be better, especially if their voice happens to sit higher. But would the 18th total range even be possible to sing, and if it is possible, would it be realistic to expect that Hildegard's nuns would have this ability?

6. On Vocal Abilities and Ranges

Different voices have different ideal tessituras and ranges, and we can see Hildegard's recognition of this in her *Ordo Virtutum*. There are eighteen roles (seventeen Virtues plus

[76] Hiley. 169.
[77] Weber, "Intellectual Currents in Thirteenth Century Paris: A Translation and Commentary on Jerome of Moravia's Tractatus de Musica," 396–97.
[78] Bernard of Clairvaux, *Epistola S. Bernardi "De Revisione Cantus Cisterciensis": Et Tractatus Scriptus Ab Auctore Incerto Cisterciense "Cantum Quem Cisterciensis Ordinis Ecclesiae Cantare [Consueverant],"* 24:53.

Anima) in the *Ordo*, corresponding roughly to the number of women in her community.[79] It is likely that each character was composed for a specific individual. The characters have quite different ranges, and we can hear echoes of individual singers' vocal abilities and strengths through the ranges of their characters. For instance, the character of Obedience has the meager range of a sixth for her part, which is only one line, whereas the characters of Victory and Mercy have a range of an octave and a half.[80] Interestingly, Victory and Mercy are also the only two soloists given music in the rarely-used C mode.[81] Just as Hildegard composed differently for different nuns in the *Ordo*, so she may have composed different pieces with certain singers in mind, playing to their strengths and abilities. The verse of "O tu illustrata" may have been intended for a particular soloist, one with both excellent musicianship to navigate the challenging modal changes and with an exceptional range to compass the whole work. It could have even been intended for either of the soloists who sang the parts of Victory or Mercy.

Medieval chants were usually set to be an octave in range (plus one note, or maybe two), in accordance with modal theory, and the Cistercian reforms of chant in the 12th century even revised chants so that they fit into the proper range. The Cistercian Bernard of Clairvaux (to whom Hildegard wrote a letter) in his introduction to his Antiphonary describes the reasoning behind these revisions:

> It is indeed clearer than daylight that that kind of chant is offensively and irregularly composed which sinks so low that it cannot be heard as it ought to be, or soars so high that it cannot be sung: for it ought to be such that in its lower notes a person can hear it, and in its higher notes that a person can sing it. Certain persons have desired the average range to be eight notes, and certain others nine notes, taking into consideration the aptitude not of lusty but average voices.[82]

The range of "average voices" is then an octave or a ninth, though "lusty voices" could have a larger range. While the voices of many of Hildegard's nuns would likely have been of the "average" type, it is also plausible that there could have been some of the "lusty" variety as well.

Just how large could the ranges of these singers have been? Voices can have quite large ranges – for female voices, the chest register (M1 laryngeal mechanism) can extend well into the bass clef. On top of this, women's head voices (M2 laryngeal mechanism) extend well

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[79] Meconi, *Hildegard of Bingen*, 21.
[80] Richert Pfau and Morent, *Hildegard von Bingen*, 243.
[81] Meconi, *Hildegard of Bingen*, 22.
[82] Bernard of Clairvaux, *Epistola S. Bernardi "De Revisione Cantus Cisterciensis": Et Tractatus Scriptus Ab Auctore Incerto Cisterciense "Cantum Quem Cisterciensis Ordinis Ecclesiae Cantare [Consueverant],"* 24:53.

above the staff,[83] and the whistle or flageolet register (M3 laryngeal mechanism) can extend to G6 or even higher.[84] In Richard Miller's *Training Soprano Voices*, he specifies the ranges for each female voice type, along with *passaggio* information. He lists the soprano voice as having a range of G3 to A6, with the *primo passaggio* (the chest voice to head voice transition) at Eb4, the *secondo passaggio* at F#6, and the flageolet register starting on D6. Mezzo-soprano voices go from E3 to C6, with the *primo passaggio* at F4, the *secondo passaggio* at E5, and the flageolet register starting at C6. For contraltos, the range is from D3 to Ab5, with the *primo passaggio* at G4, the *secondo passaggio* at D5, and the seldom-developed flageolet register starting at A5.[85] These ranges are for trained voices, but they reveal the capabilities of the human voice. As Richard Miller was a *bel canto* technique pedagogue, which favors head voice, his limits on the low register may be conservative. For untrained voices, the vocal ranges are usually narrower, and for all voices there should be a distinction between notes that are pleasant to listen to and notes that are possible to phonate.

My own voice has a large range on which phonation is possible. Richard Miller's range for sopranos is approximately correct for me, with the following emendations: anything higher than F#6 is not consistent, and technically I can sing down to C2, though it is very soft and F#3 is the lowest I have ever sung solo in a concert. Whether these sounds are appropriate for a concert is another matter – the lows can be too soft to be practically used, and the highs can be unpleasant. Another consideration is singing text – singing consonants and intelligible vowels is difficult above the top of the treble staff, with increasing difficultly as I go up. But I can technically sing all these notes, and so my range accommodates all the notes of "O tu illustrata," with some room for transposition.

In my own singing of "O tu illustrata" at A=440 without transposing the verse, what I have found to be most difficult is singing text on the high notes. In particular, the most difficult moment is closing down to the "ntr" consonant cluster on the word "ventre," the apex moment of the piece, without having the phonation stop. Taking the chant down a whole step greatly helps to be able to sing this moment, and singing C6 is much easier for me than D6. I find that my voice transitions to the whistle/flageolet register at around C#6, but for me there is often an inelegant break at this transition as well as some pitch instability, and in addition this transition is accompanied by a change in tone color to a lighter, flutier sound which is a little jarring in the context of the piece. At pitch, shifting to the whistle register only

[83] Roubeau, Henrich, and Castellengo, "Laryngeal Vibratory Mechanisms," 436.
[84] One study participant (who was a "non-expert" singer) even reached D7. Garnier et al., "Glottal Behavior in the High Soprano Range and the Transition to the Whistle Register," 954.
[85] Miller, *Training Soprano Voices*, 25.

for the D6 is awkward, so I instead carry the head voice up, but it often becomes overblown, and the fold adduction is no longer clean. Singing a step down at C6 avoids this transition point, making the whole phrase more even and more appropriate for a concert setting. However, singing a step down makes the lowest note G3, transitioning the whole chant lower and making the tessitura low for some sections of the antiphon. G3 is rather soft in my voice, but this can be mitigated by having multiple people sing the antiphon.

If the verse is transposed down a fifth, then at A=440 it would require singing a solo G3, which for me personally is quite soft. Taking the whole piece up one step can help this, but then if the antiphon is sung by a group, it is perhaps too high because it would require singing A5, a note that is not possible for everyone. With a big enough group, some singers may drop out for the notes they cannot sing, whether high or low. The nun who sang the narrow-ambitus part of Obedience in the *Ordo Virtutum*, for example, probably would have been unable to sing most notes in most of Hildegard's chants, and it likely would have been necessary for her when singing in a group to drop out for any impossible notes. The nuns who sang Mercy and Victory would have likely been leading the group when chants went into the upper register. The mean range for Hildegard's chants is 11.8 – basically one and a half octaves (see Appendix 1). If the chants were sung by all her nuns as a group, they would have needed to all have ranges over that of most amateurs. It is possible that many of them did have large ranges, given that they sang every day. Alternatively, the nuns with lower ranges could have taken over the lower notes, and those with higher ranges could have taken over the higher notes, and the group as a whole could have sung her pieces without an issue. There also could have been a few standout singers capable of doing the two-octave verse of "O tu illustrata" as a solo.

Another consideration is whether all the notes would need to sound up to our modern performance standard, especially given that a modern performance setting is anachronistic. The original context for Hildegard's music is still subject to debate, though the genres given for the chants (antiphon, responsory, etc.) suggest a liturgical setting.[86] For a modern performance (in a classical music setting), all notes are expected to be pretty, but for Hildegard's nuns, that may not have necessarily been true. In a modern performance, the music is made for the audience. For Hildegard's nuns, it was likely they were singing for themselves. It may not have mattered so much if the singing was not always pleasant to listen to, and it could have been more important that the music felt meaningful for the singers to sing.

[86] Meconi, *Hildegard of Bingen*, 104.

How did medieval people understand the voice? Medieval treatises that talk about the voice divide it into three sections or registers. Jerome of Moravia in his *Tractatus de Musica* describes the registers of chest, throat, and head, according to where the notes "form," saying:

> We call those voices 'of the chest' that form notes in the chest, 'of the throat' those [formed] in the throat, and 'of the head' those [formed] in the head. Voices of the chest are best for the low register, of the throat for the high register, those of the head for the highest register. Large and low-pitched voices are of the chest; delicate and very high voices are of the head; the voices between these are of the throat. None of these [voices], therefore, is to be joined to the other in chanting, but the voice of the chest for the chest [tones], of the throat for the throat [tones], of the head for the head [tones].[87]

Register divisions, even in modern voice science, can be based on different criteria,[88] and this register division seems to be based on where the sympathetic vibrations are felt in the body. While this statement would have referred to men's voices, it is a concept that also works for women's voices. "O tu illustrata" untransposed has a two-and-a-half octave range, and part of its point could be to traverse all these registers and to feel the voice in all these parts of the body, with the lowest notes in the beginning of the piece occupying the "chest," the middle section occupying the "throat," and the very highest moments on "ventre," "floruit," and "divinitate" occupying the "head." It is the ultimate embodiment of music, using the whole of the voice to praise God (or here, the Virgin Mary). Even if there is some squeaking or shrieking on the top because of the large range, that could be less important than the singer's own experience of the piece. It also seems appropriate that the most dramatic moments of "ventre" and "carnis," words that refer to the body (and "ventre" very specifically to the female body), also explore the edges of the voice.

When I'm singing just for myself, I enjoy exploring the highs and lows of my range. The high notes are especially powerful for me. I had taken voices lessons for ten years before I began to figure out how to sing above the top of the treble staff without being terrified that the notes would not come out, and now I enjoy singing being able to sing high, at least for myself without the concert pressure of always being perfect and pretty. I imagine any singer with an upper extension would also enjoy singing in this range, and that if any of Hildegard's nuns had had it, they would have used it. In the "O tu illustrata" verse, the high moments are melismatic, making it possible to sing – if the highest notes had all been syllabic, I would be much more skeptical about whether it was intended to be sung as written. The Tapestry recording shows that it can be done as written, and can be done well. In this conclusion, I am

[87] Dyer, "The Voice in the Middle Ages," 169.
[88] Roubeau, Henrich, and Castellengo, "Laryngeal Vibratory Mechanisms," 425.

of course influenced by my own abilities and aesthetic inclinations, but the editors and ensembles who recorded her works have also been influenced by theirs.

Hildegard's nuns sang the office daily, and while they may not have had "training" in our modern sense, they certainly had a lot of experience and practice singing. They likely would have been quite "in shape" vocally, given the amount of singing they did each day. Hildegard was an exceptional woman, as were the practices in her community, with her nuns' white robes and silk veils and crowns and golden rings. These women literally and transgressively let their hair down in their worship of God, and it is not unreasonable to think that their music and music-making would have had some of this quality as well.

7. Conclusion

I would advocate for maintaining the pitch relationships in "O tu illustrata" over a partially-transposed version. By transposing certain sections, the structure as a whole is inevitably changed. And this structure seems to be deliberate: the text-painting high of "ventre" and low of "carnis" depend on the written pitch relationships for their dramatic power. The modal journey from D to E in the antiphon mirrors the journey from a to b in the verse. The general move from melodic and modal stability to instability seems crafted. These factors make it seem like the written pitches are likely what was intended. But even if it is what Hildegard wanted, it is possible that out of necessity the chant was transposed even in Hildegard's time, depending on the abilities of the singers. The Sequentia version is a compelling example of how this could have been done, though transposing sections also erases many of the modally and melodically interesting moments. If it is possible for the singers, doing the chant with the written pitch relationships is a better solution to be able to keep these moments intact. After all, the ranges of Hildegard's chants were not complete outliers in her cultural context, suggesting that singing pieces with large ranges could have been done by some singers. In terms of dealing with the ambitus of the piece, transposing the verse can be a good option to reduce the range when necessary, as modally problematic chants were often notated at the affinities. Ultimately, the pitch of the verse, like the pitch of the whole antiphon, should be based on what is best and possible for the singer (or singers).

This paper led to some unintended discoveries when I listened to the recordings of "O tu illustrata," and when the prevalence of the Barth, Ritscher, Schmidt-Görg edition in the recordings became clear. Initially, I only examined the extant recordings of "O tu illustrata" to understand how one might perform it, but the findings cannot be ignored. That most ensembles use the Barth, Ritscher, Schmidt-Görg edition reveals that most ensembles are not

dealing with the manuscript, but rather with this particular edition. The "regularizations" to the melody removed what made it interesting and special, and the many recordings have immortalized this version, erasing the trace of what might be one of Hildegard's most modally adventurous pieces. The general consensus in Hildegard scholarship seems to be that her works are modally stable, that they start and end in the same mode.[89] How might this understanding be changed if more attention were paid to "O tu illustrata"? The only analysis of "O tu illustrata" that I found was by Honey Meconi. While she recognizes that it "is truly a virtuoso effort," she also misses the most interesting aspects of the chant because she fails to analyze further than the modally stable beginning, labeling it as a D mode piece without any mention of the move to E, let alone the many changes in the verse.[90] If "O tu illustrata" as written in the Riesencodex had been accorded more attention, if the recordings using the Barth, Ritscher, Schmid-Görg edition were not so pervasive, the scholarly community's understandings of mode in Hildegard and her compositional style might be a little more complicated.

I was expecting to come out of this paper with ideas about transposition possibilities, possibilities along the lines of what Sequentia did in their recording and Barth, Ritscher, and Schmidt-Görg did in their edition. But after the analysis and hearing those versions, I am more convinced of the merit of the Riesencodex version as I think it sounds more dramatically compelling as written. However, there are avenues related to mode and medieval transposition practices that I have not yet fully investigated, and that would likely influence my conclusions. I would like to spend more time with Hildegard's *Ordo Virtutum*, as examining the changes in mode throughout that work would provide more of a context for the modal shifts in "O tu illustrata." I would also like to explore the scholarly literature on the partial transposition of sequences and other chants to better understand current theories about such practices, and to become more familiar with the medieval music theory treatises and their recommendations for what to do when a section of the chant went too high or too low. Perhaps after this further research, I would be able to produce a partially transposed version of version of "O tu illustrata" that I would find more believable than the Barth, Ritscher, Schmidt-Görg and Sequentia versions, one that maintained the power of the dramatic moments in the piece.

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[89] Pfau, "Hildegard von Bingen's Symphonia Armonie Celestium Revelationum: An Analysis of Musical Process, Modality, and Text-Music Relations"; Richert Pfau and Morent, *Hildegard von Bingen*; Bain, "Hildegard, Hermannus and Late Chant Style."
[90] Meconi, *Hildegard of Bingen*, 109–10.

But until I do that research, I am also content with the version on the page, even with the large range and the potential for some imperfect-sounding notes when sung. Our modern performance perspective of audience and performer is a context that is foreign to the original intent of this music. Hildegard's chants would likely have been in a liturgical setting, not for an audience. I think the act of singing this piece is more important than hearing it be sung, and because I can sing the full range, it seems believable to me. I even find it more satisfying to sing without transposing the chant, because it gives me the opportunity to use my whole voice. If this verse was for a soloist, it would likely have been for one of Hildegard's more vocally able nuns. The Tapestry recording shows that it can be done, even if the recording is sometimes less than ideal with its infelicitous b-flat/b-natural choices. Adding a few b-flats are the only change that I would make to what is on the page, as well as providing the option of transposing the verse down a fifth if the singer prefers. And while this version has yet to be recorded, I'm not so sure that is the point, or that even performance is the point. I think it is more important to sing it.

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Appendix 1

Table of the ranges of Hildegard's chants

This chart was made using Vincent Corrigan's edition of the *Symphonia*. The range of each chant is given according to the Riesencodex. If the range is different in the Dendermonde manuscript, this is indicated by parentheses. For Alleluia/O virga mediatrix, the range of the chant in St. Gall, Stiftsbibliothek Cod. Sang. 546 is indicated by brackets. Dendermonde has clef issues in "O dulcissime amator" and "O mirum admirandum," so their ranges in that manuscript are not included in this table. The average range for Hildegard's chants is given at the end of the table. When the range for a given chant differed in different manuscripts, these ranges were averaged to compute the overall average.

Title	**Range**
O vis etarnitatis/O quam magna/Gloria Patri	11
O magne pater	11
O eterne Deus	12
O virtus Sapientie	12
O quam mirabilis	11
O pastor animarum	11
O cruor sanguinis	10
Spiritus sanctus vivificans	9
Karitas habundat in omnia	11
O splendidissima gemma	12
O tu illustrata/Versus: Tu mirabilit[er]	18
Nunc [Hodie in D] aperuit nobis	12 (13)
Quia ergo femina	11
Cum processit factura	9
Cum erubuerint	13
O quam magnum miraculum	14 (13)
Ave Maria O auctrix/O dulcissima/Gloria Patri	12
O clarissima mater/O vivificum instrumentum/Gloria Patri	12
O tu suavissima virga/Nam mistico/Gloria Patri	13
O quam preciosa/Unde dulce germen	13
O gloriosissimi lux	14 (15)
O vos angeli/Videtis enim	19
O spectabiles viri	15
O vos felices/Gaudete in illo	13
O chohors militie	15
O lucidissima apostolorum/Agnus enim inmaculatus	14
O speculum columbe	11

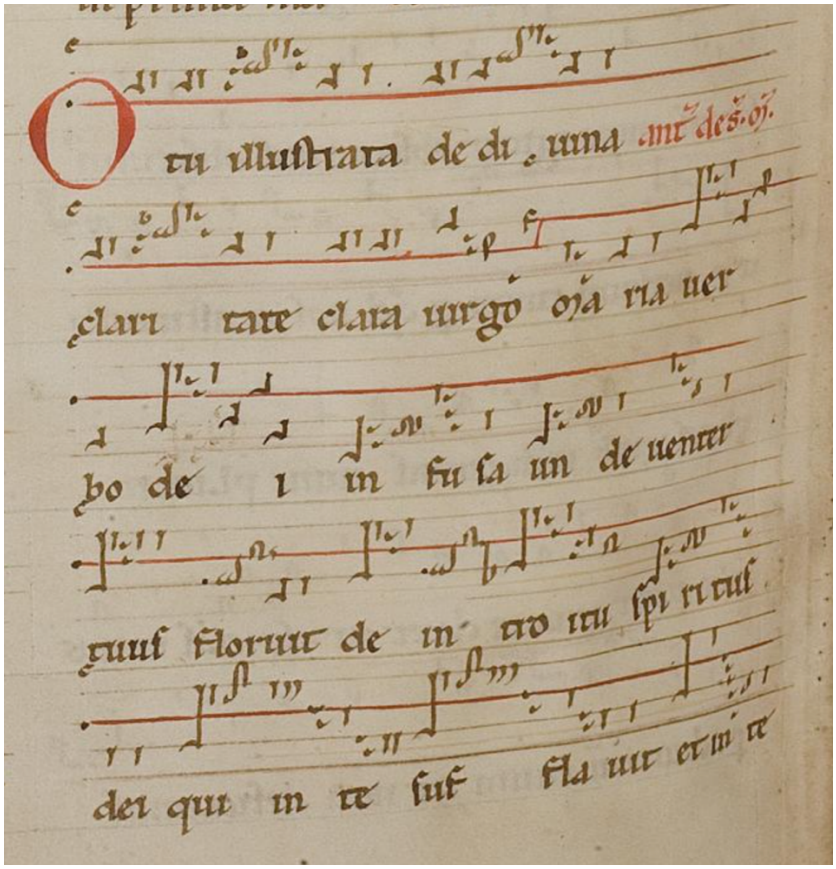
O dulcis electe/Tu enim anxisti	10
O victoriossisimi triumphatores	14
Vos flores rosarum/Sit honor in consortio	15
O vos imatores/Nam et angelici	12
O successores fortissimi	13
O mirum admirandum	12
O viriditas digiti Dei/Et o altitudo montis/Gloria Patri	12
O felix anima/Spiritus sanctus/Gloria Patri	10
O beata infantia	9
O felix apparicio	13
O beatissime Ruperte	13
Quia felix puericia	10
O pulcre facies	11
O nobilissima viriditas/Tu rubes ut aurora	13
Favus distillans/Unde in nobilissima/Gloria Patri	11
Spiritui sancto/Nam iste castissimus/Gloria Patri	9
O rubor sanguinis	11
Studium divinitatis	8
Unde quocumque	13
De patria	12
Deus enim in prima	10
Aer enim volat	9
Et ideo puelle iste	11
Deus enim rorem	12
Sed diabolus	11
Rex noster promptus/Tirannus autem/Gloria Patri	10
O virgo ecclesia	10
Nunc gaudeant	11
O orzchis Ecclesia	10
O choruscans lux stellarum	13
Kyrie	12 (11)
O ignis Spiritus Paracliti	11
O ignee Spiritus	11
Alleluia/O virga mediatrix	11 [12]
O virga ac diadema	12
O viridissima virga	10
Ave generosa	13
Mathias, sanctus	14
O Bonifaci lux vivens	12
O presul vere civitatis	13
O Euchari columba/Et sic in pectore	13
O Euchari, in leta via	10

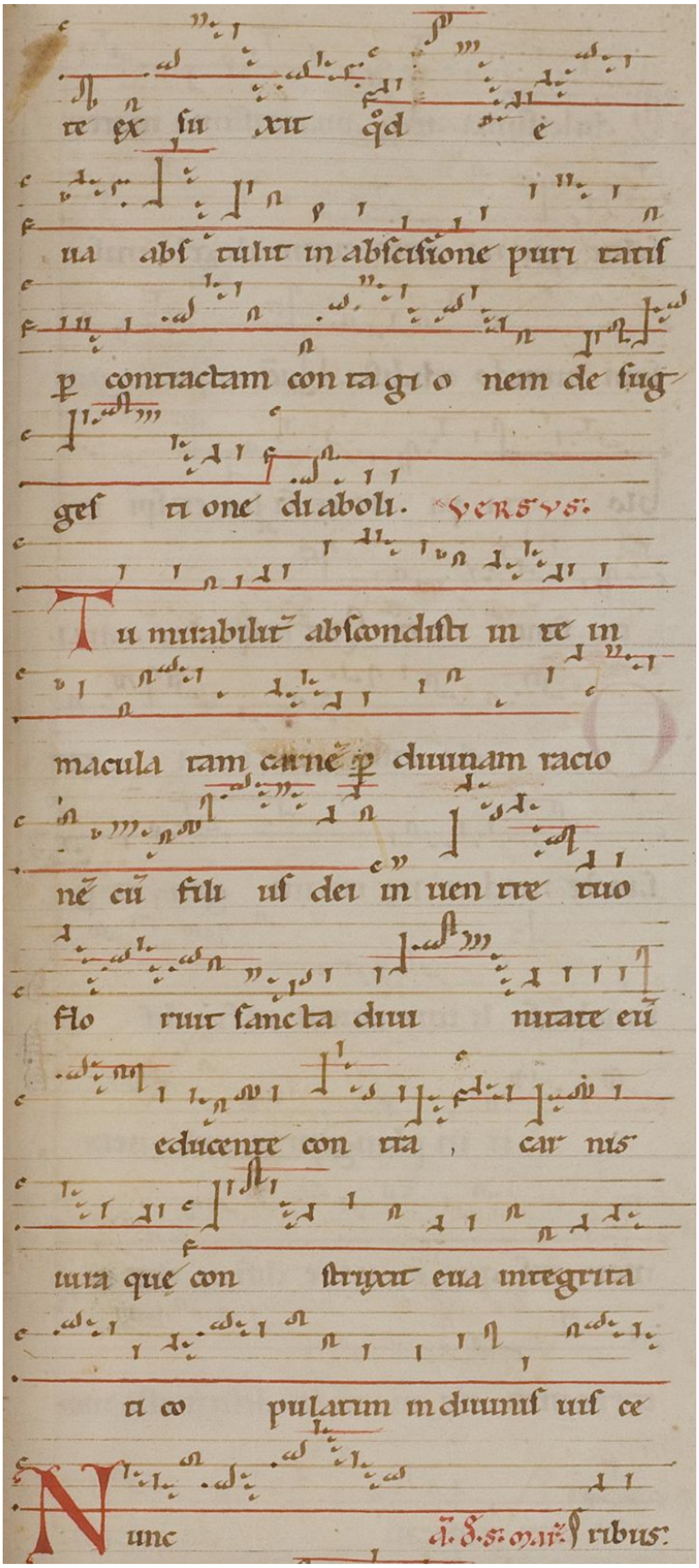
Columba aspexit	12
O Jerusalem	11
O Ecclesia, oculi tui	11
Cum vox sanguinis	12
O dulcissime amator	11
O Pater omnium	11
O frondens virga	(11)
Laus trinitati	(9)
Average range	**11.8**

Appendix 2

"O tu illustrata" facsimile

Riesencodex f. 466v-467r




te ex su xit qd e
na abs tulit in abscisione puri tatis
p contractam con ta gi o nem de sug
ges ti one diaboli. VERSUS.
Tu mirabilit absconditi in te in
macula tam carne p diuinam racio
ne cu fili us dei in uen tre tuo
flo ruit sancta diui nitate eu
educente con tra car nis
iura que con struxit eua integrita
ti co pulatum in diuinis uis ce
Nunc

Appendix 3

Edition of "O tu illustrata"

Based on Riesencodex f. 466v-467r

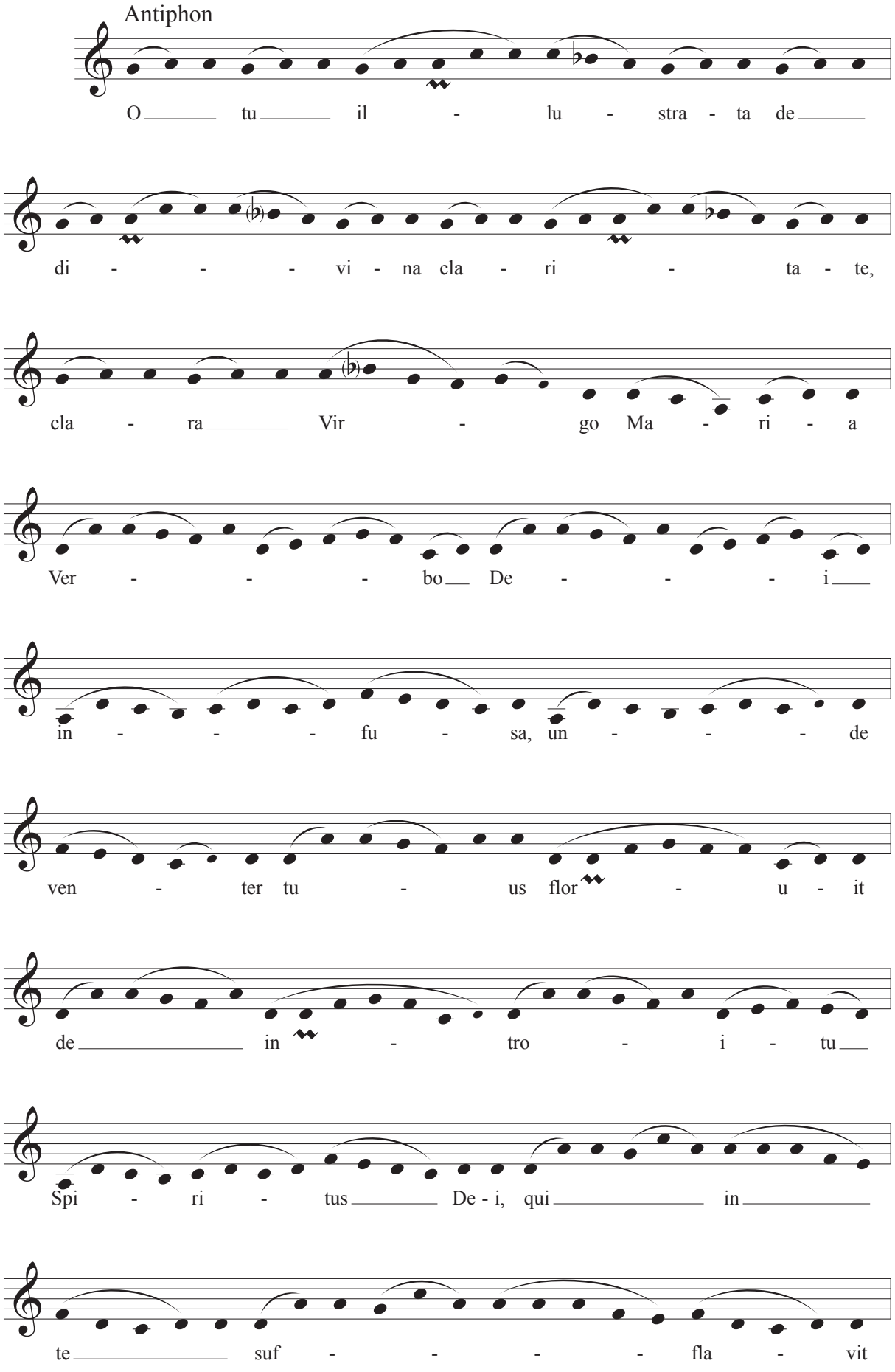
There are three types of b-flat notation in my edition. B-flats that are written in the manuscript are signed next to the note. In the manuscript, the b-flats are written close to the beginning of the line, so they likely indicate the first b-flat and imply that the b-flat carries through the line. There is no sign for b-natural used in this manuscript, so it is also possible that b-natural is actually meant for these notes. For all b's I think should be flat that are not explicitly marked, if they occur on a line after a marked b-flat, the b-flat is written in parentheses next to the note, and if they occur on a line without a b-flat or before the b-flat on that line, the b-flat is written above the note.

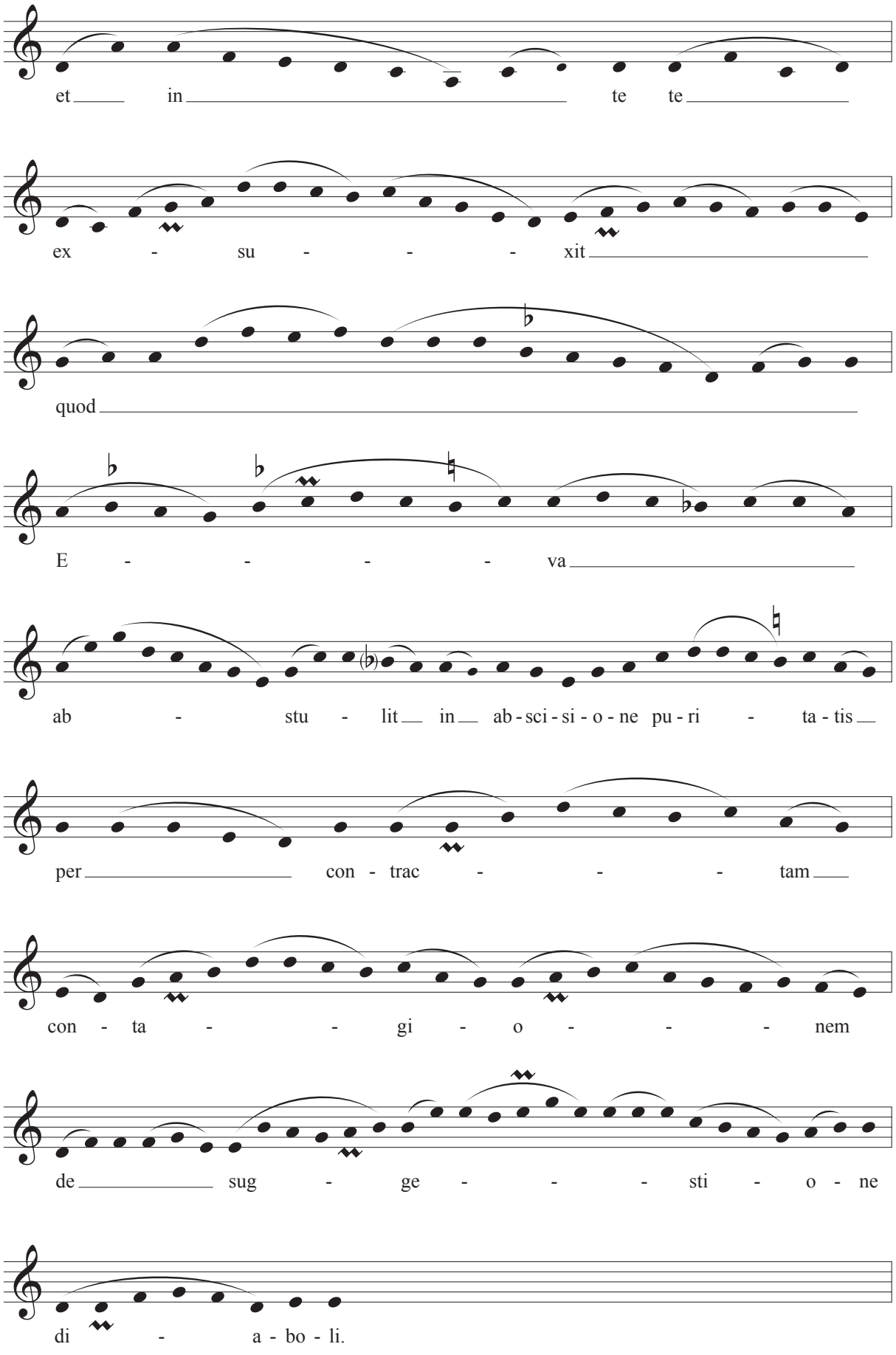
O tu illustrata - Tu mirabiliter

Riesencodex, f. 466a-467

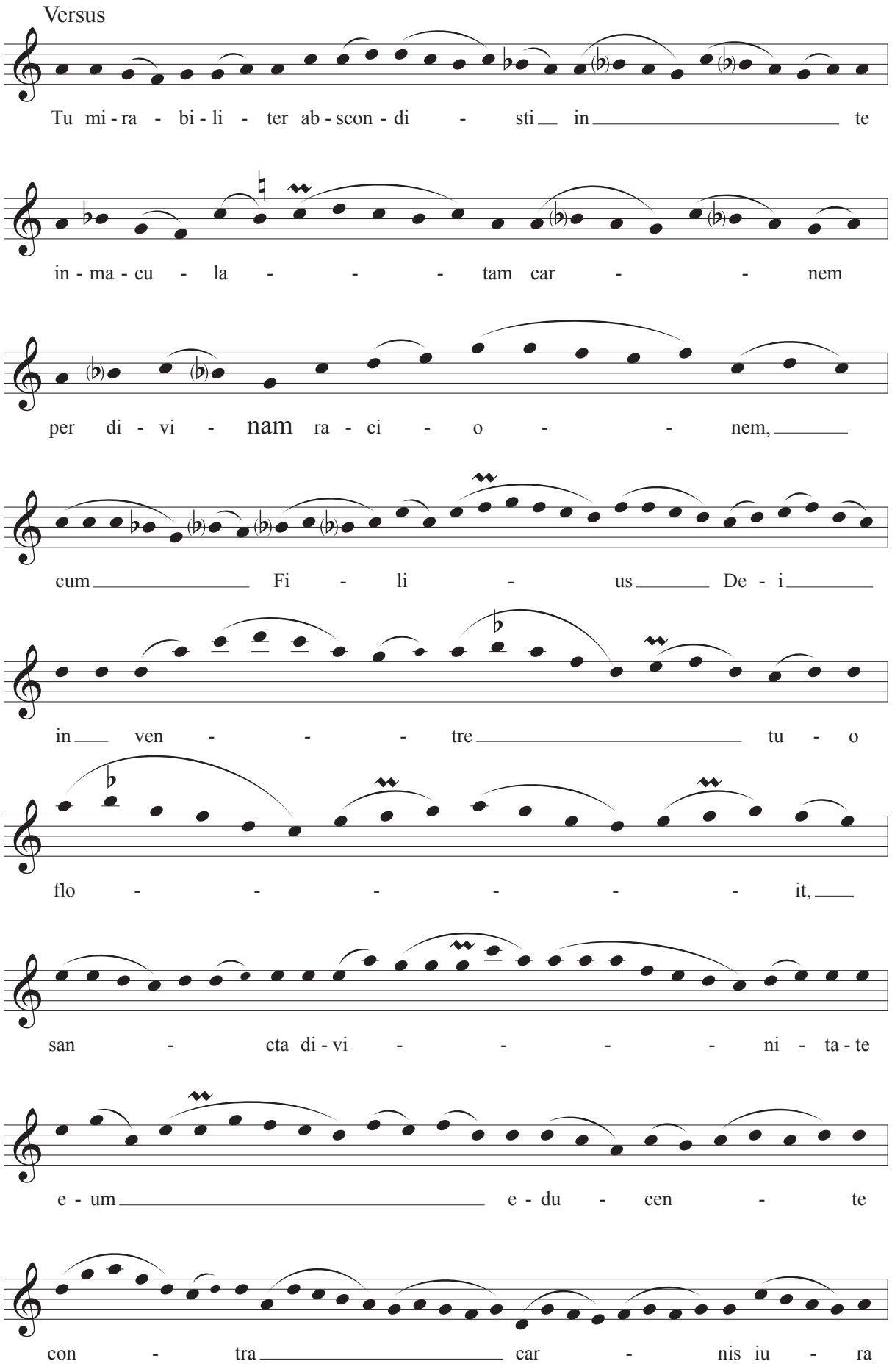
Hildegard von Bingen
Edition by Karin Weston

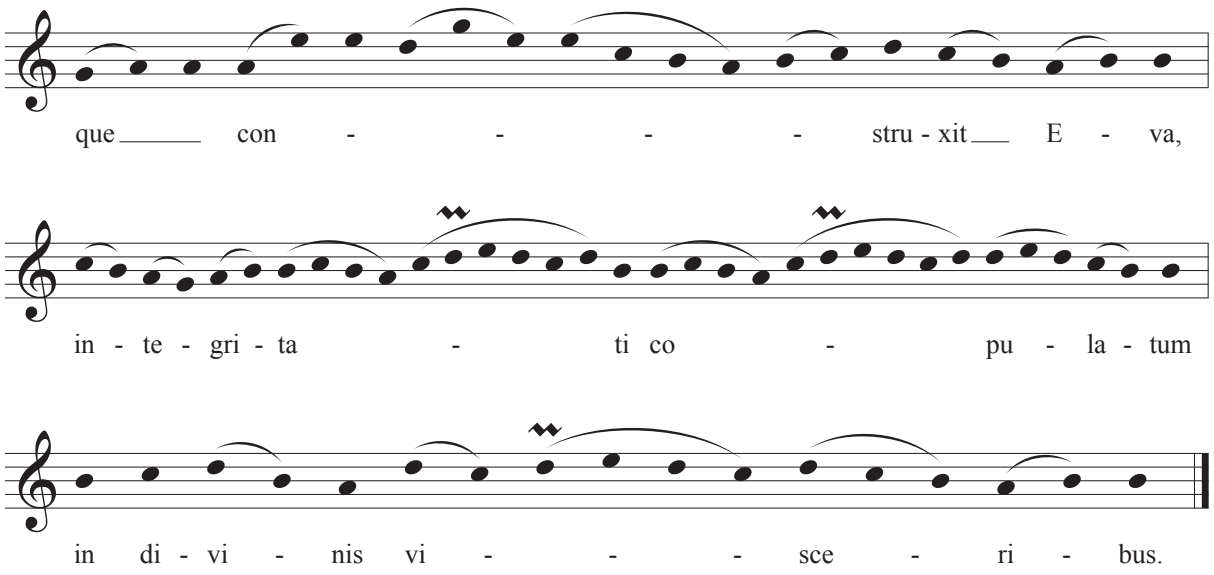
Antiphon




et in te te
ex su xit
quod
E va
ab stu lit in ab-sci-si-o-ne pu-ri ta-tis
per con-trac tam
con-ta gi-o nem
de sug ge sti o ne
di a-bo-li.

Versus


Tu mi - ra - bi - li - ter ab - scon - di - sti in te
in - ma - cu - la - - - tam car - - nem
per di - vi - nam ra - ci - o - - nem,
cum Fi - li - us De - i
in ven - - - tre tu - o
flo - - - - - - it,
san - cta di - vi - - - - ni - ta - te
e - um e - du - cen - te
con - tra car - nis iu - ra


que con - - - - stru - xit E - va,
in - te - gri - ta - ti co - pu - la - tum
in di - vi - nis vi - - - sce - ri - bus.

Appendix 4

Comparison of the "O tu illustrata" edition by Barth, Ritscher and Schmidt-Görg to the Riesencodex version

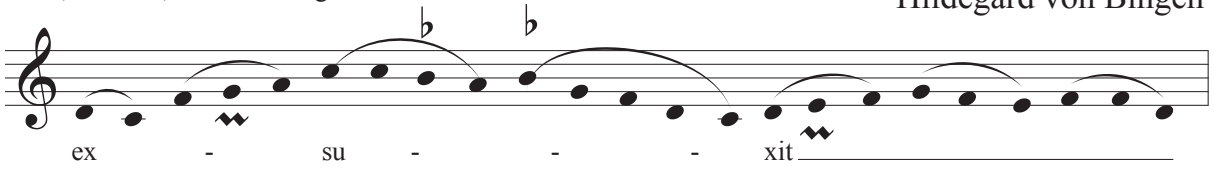
Only the lines that differ from the Riesencodex are provided. The top line is the edition by Barth, Ritscher and Schmidt-Görg, and the bottom line is my edition of the Riesencodex version.

O tu illustrata - Tu mirabiliter

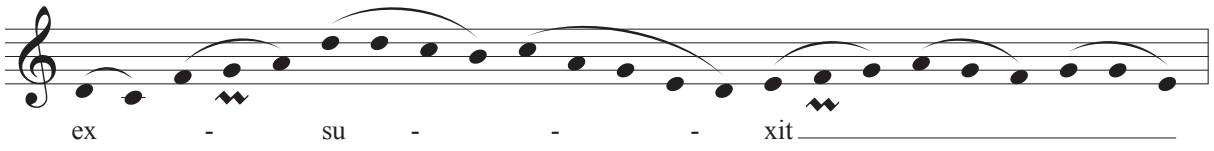
Comparison of Barth, Ritscher, Schmid-Görg edition (top line) to
Riesencodex (f. 466a-467) (bottom line, edition by Karin Weston)

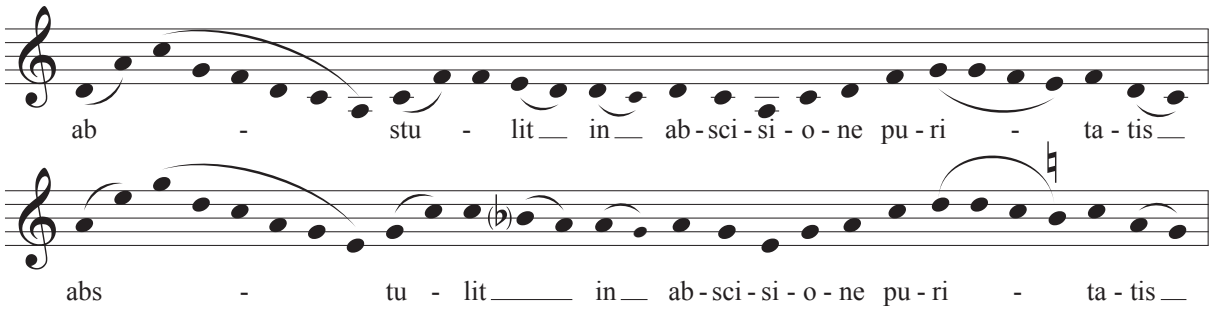
Barth, Ritscher, Schmidt-Görg edition

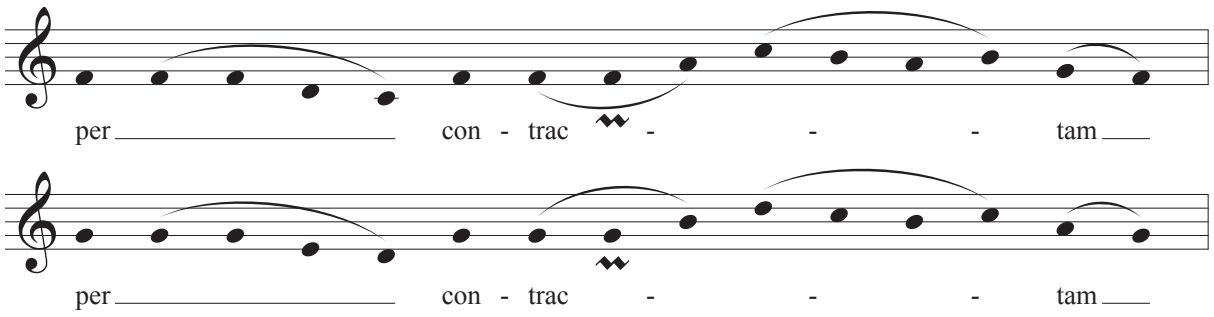
Hildegard von Bingen

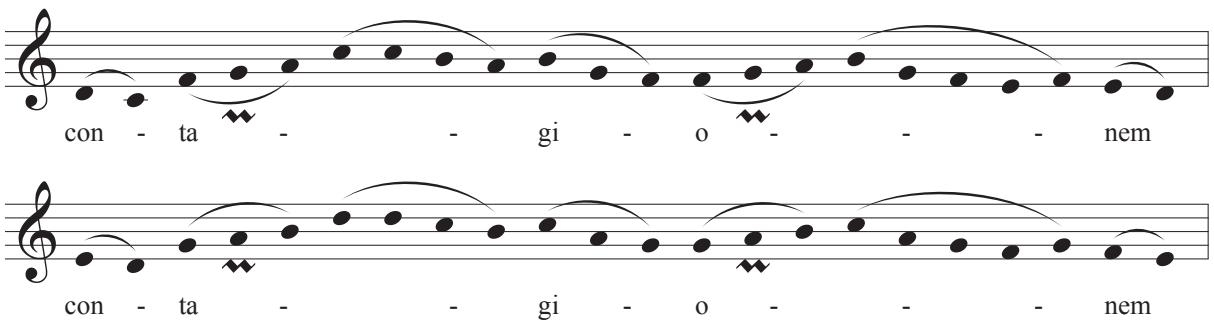


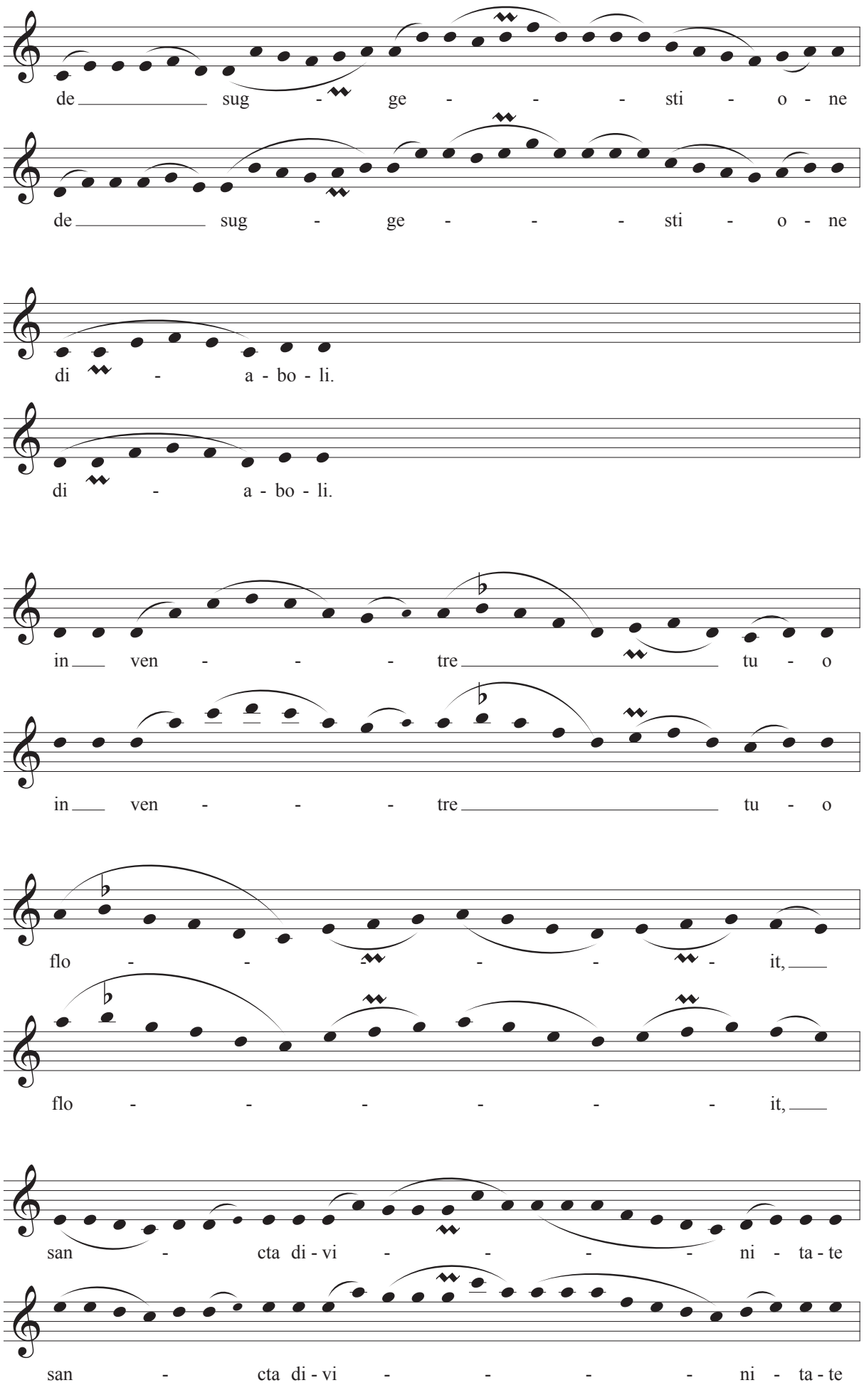
Riesencodex (edition by Karin Weston)

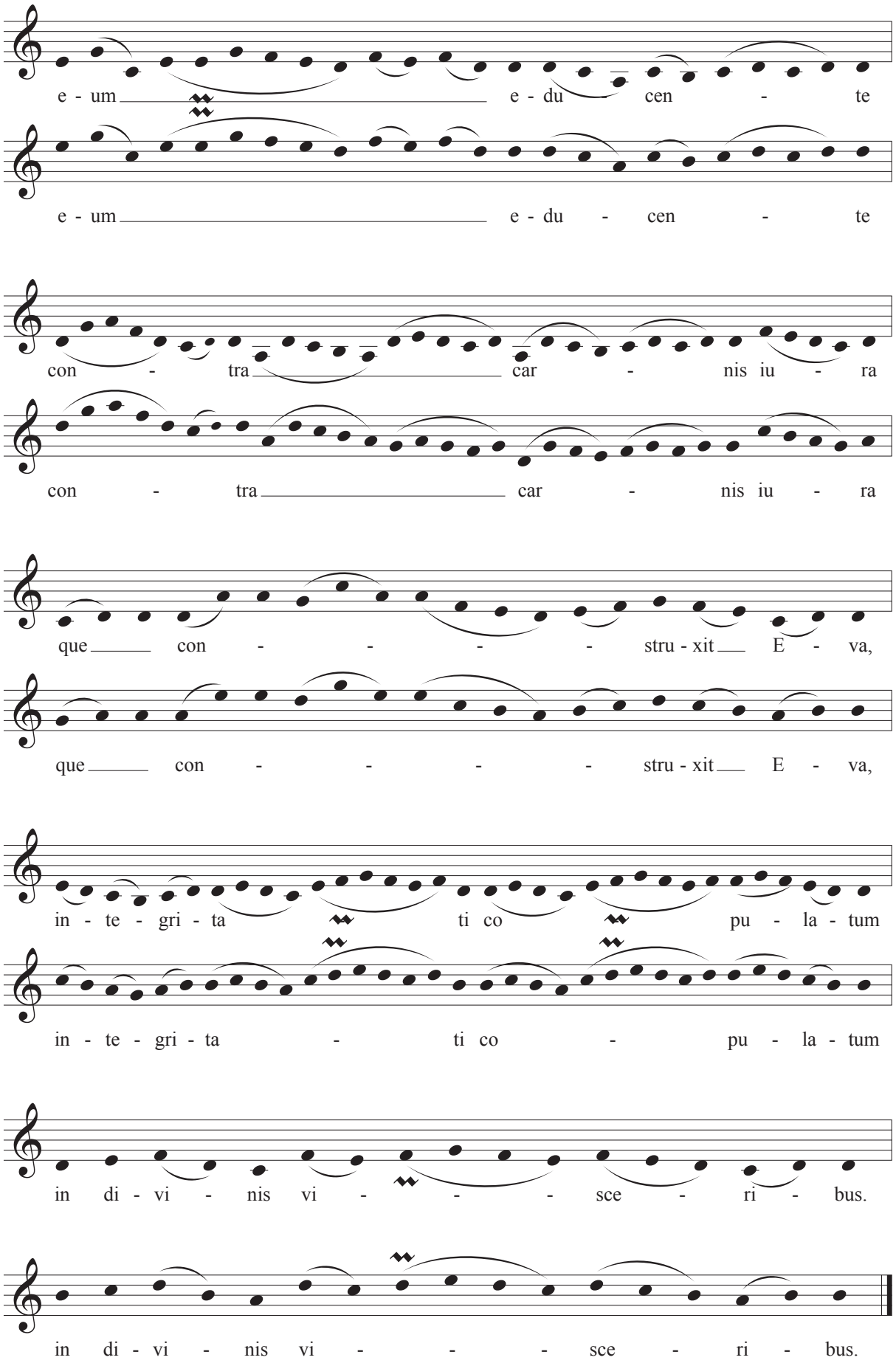









de sug - ge - - - sti - o - ne
de sug - ge - - - sti - o - ne
di - a - bo - li.
di - a - bo - li.
in ven - - - tre tu - o
in ven - - - tre tu - o
flo - - - - - it,
flo - - - - - it,
san - cta di - vi - - - - ni - ta - te
san - cta di - vi - - - - ni - ta - te


e - um e - du - cen - te
e - um e - du - cen - te
con - tra car - nis iu - ra
con - tra car - nis iu - ra
que con - - - - stru - xit E - va,
que con - - - - stru - xit E - va,
in - te - gri - ta ti co pu - la - tum
in - te - gri - ta - ti co - pu - la - tum
in di - vi - nis vi - - - sce - ri - bus.
in di - vi - nis vi - - - sce - ri - bus.

Appendix 5

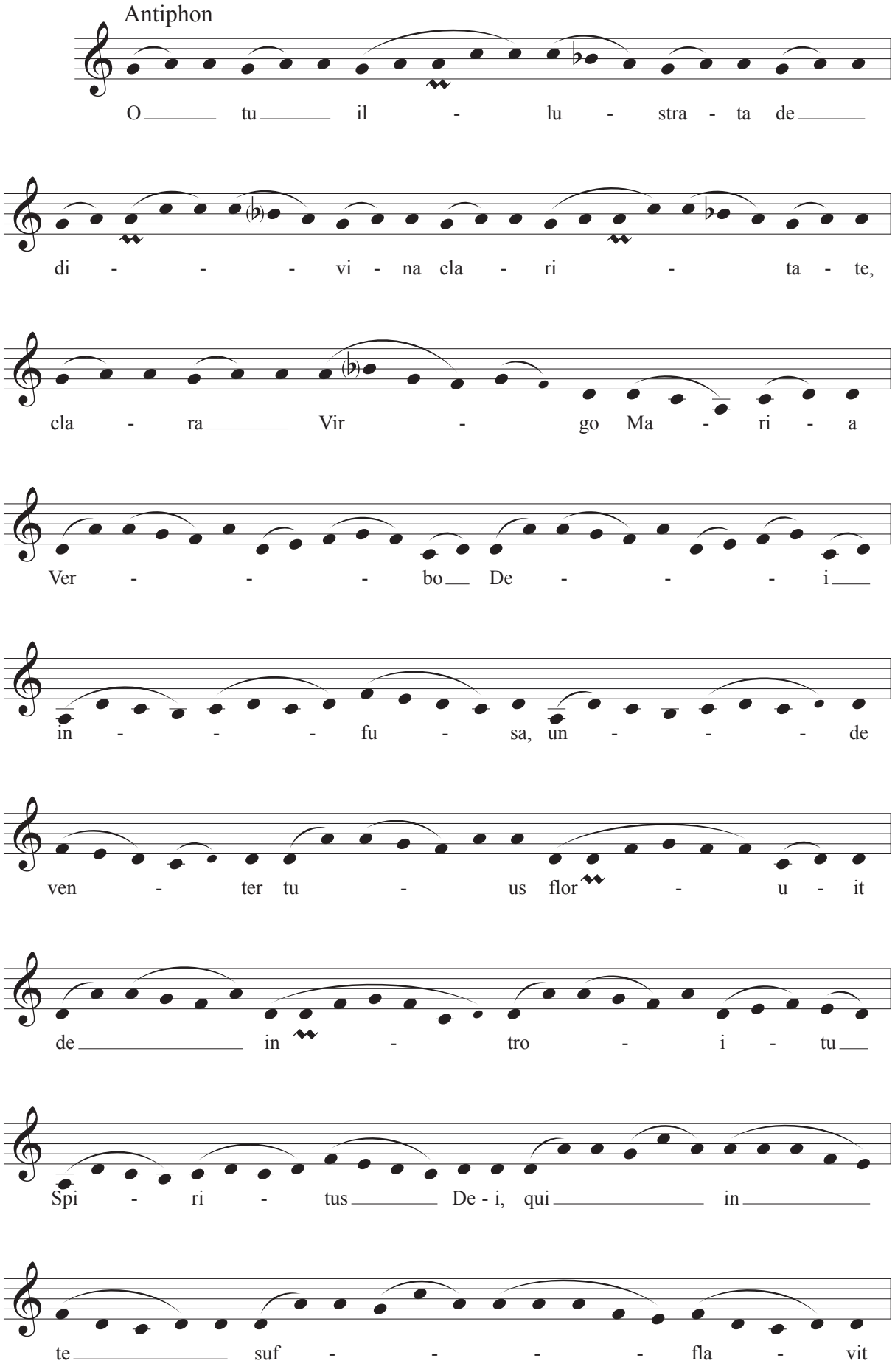
Edition of "O tu illustrata" with the verse transposed down a fifth

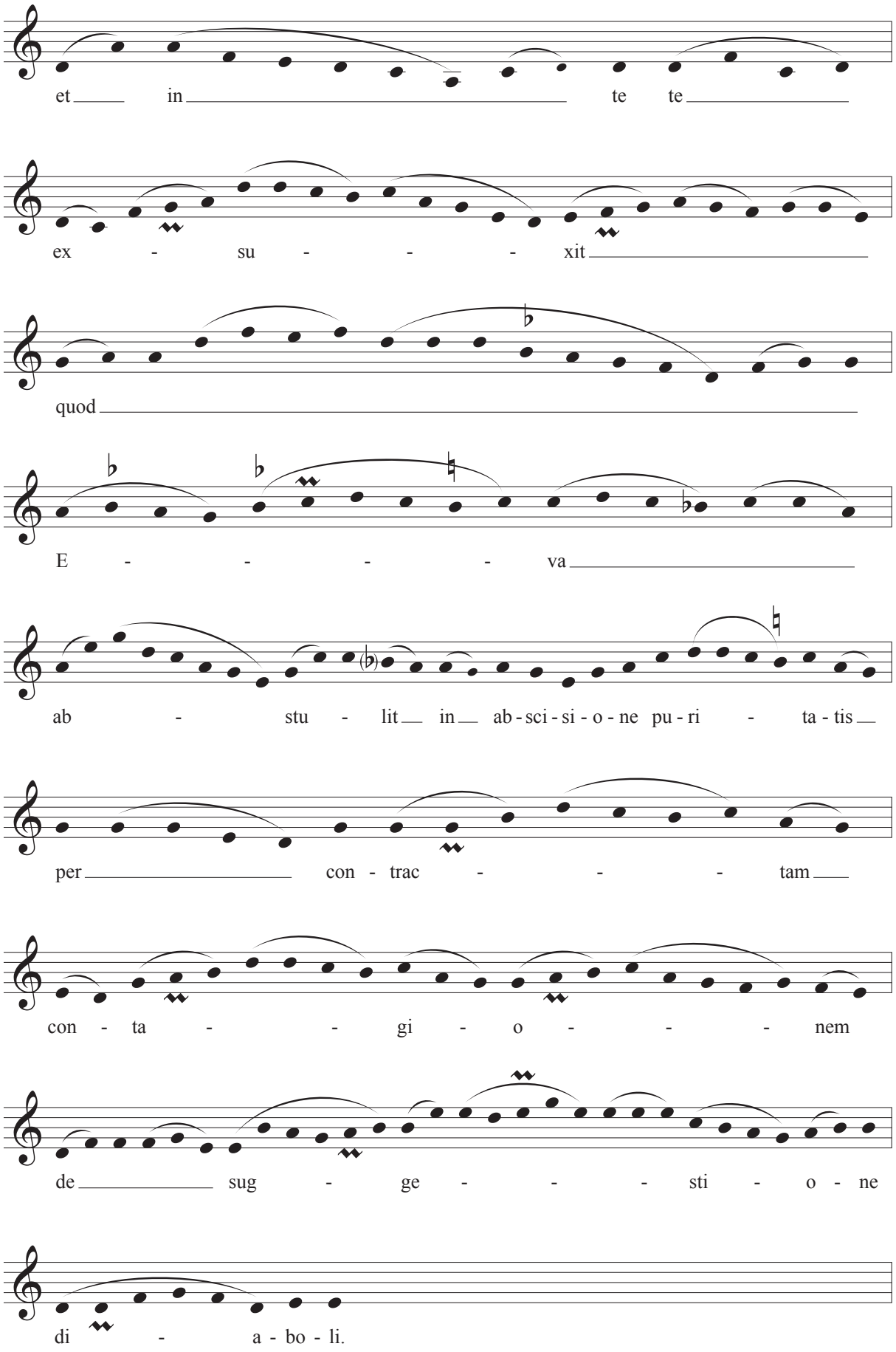
O tu illustrata - Tu mirabiliter

Riesencodex, f. 466a-467
(Verse transposed down a fifth)

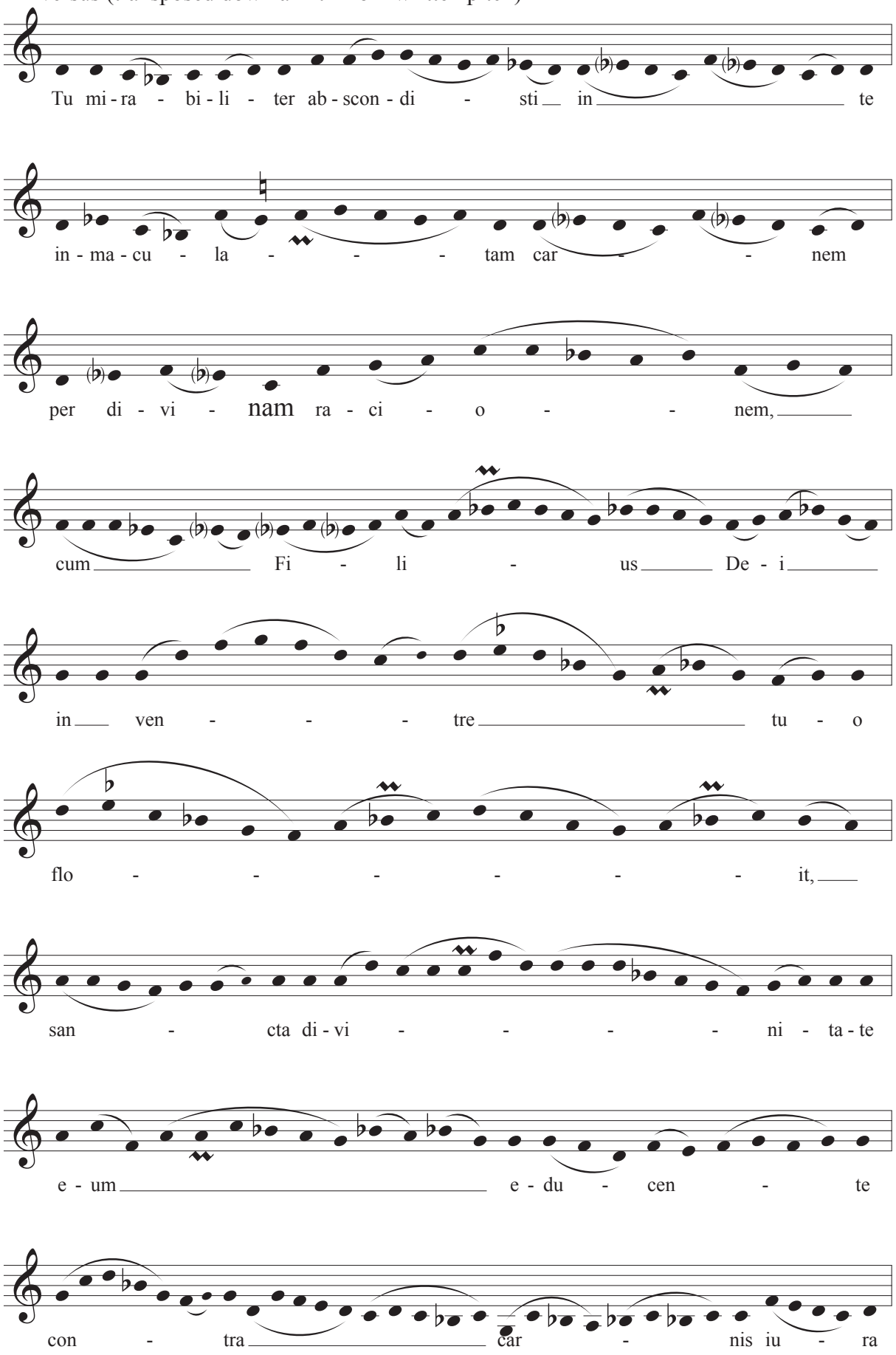
Hildegard von Bingen
Edition by Karin Weston

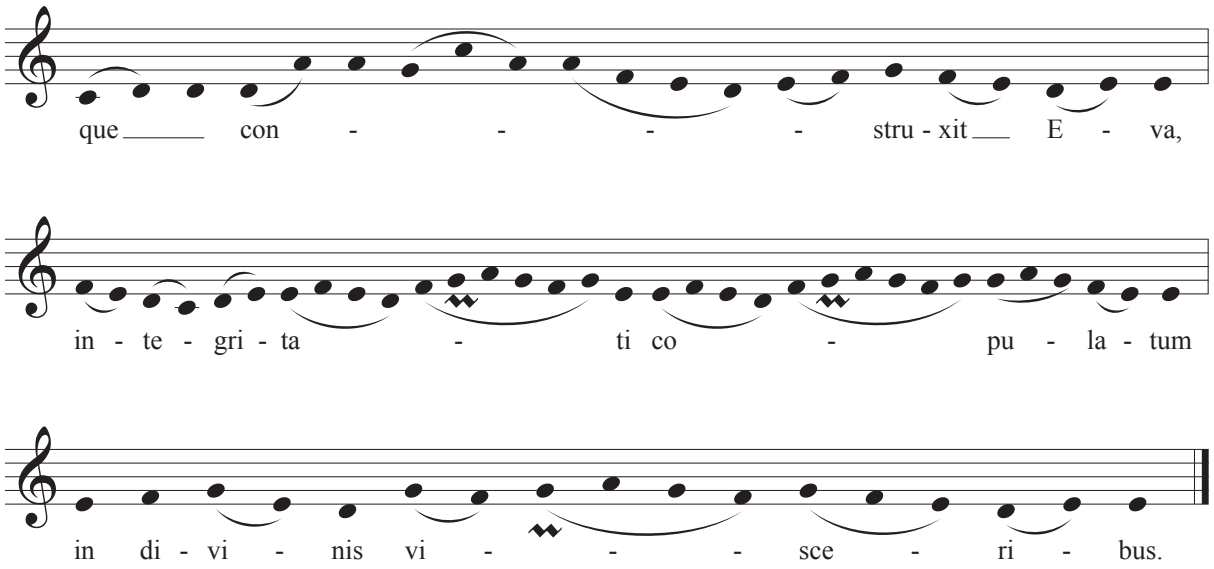
Antiphon




et in te te
ex su xit
quod
E va
ab stu lit in ab-sci-si-o-ne pu-ri ta-tis
per con-trac tam
con-ta gi-o nem
de sug ge sti o ne
di a-bo-li.

Versus (transposed down a fifth from written pitch)




que con - - - - stru - xit E - va,
in - te - gri - ta - ti co - pu - la - tum
in di - vi - nis vi - - - sce - ri - bus.

Selbständigkeitsklärung

Name: Weston
Vorname: Karin

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Karin Weston