

Psalm Differentiae in the Fifteenth-Century Olivetan Psalter Manuscript at the Łódź Archdiocesan Museum in Poland

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Abstract This article presents the psalm differentiae in the fifteenth-century Olivetan Psalter kept at the Łódź Archdiocesan Museum, the only book of this provenance that has been identified in Poland. The author identifies psalm differentiae and determines the degree to which they belong to the most widely applied *euouae* schemata in musical manuscripts and to what extent this book may contain *euouae* melodic variants without a correspondence in the chant tradition. The codex contains single psalm cadences which, if confirmed by further source research, may be considered original.

Introduction

The Łódź Archdiocesan Museum holds a psalter manuscript on parchment (*charta theutonica*) of Olivetan provenance (call no. MAŁ 357/ST/11) (Figure 1) that represents a type of ferial psalter and is outside the usual academic discourse, not having so far become an object of medieval studies.¹ As far as I am aware, having drawn on Italian researchers studying Olivetan manuscripts from various perspectives, it constitutes the only Olivetan codex in Poland that is still unidentified.² Discovery of this book in a Polish collection is thus of great value and amplifies the manuscript group of this

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¹ On the provenance, see ‘Congregatio Sanctae Mariae Montis Oliveti’, in *Dizionario degli Istituti di Perfezione*, ed. by Giorgio Picasso (Editioni Paoline, 1975), II, p. 1494. The psalter, a practical liturgical book of the Divine Office, is made up of 150 psalms arranged according to a daily and weekly cycle. A book organized in this manner was called a liturgical ferial or choir psalter. In the late Middle Ages, it completed the antiphony, containing stable parts of the *officium*, i.e. texts and melodies of psalms, invitatories, antiphons, canticles, readings, and responsories. The ferial psalter fulfilled the function in liturgical-musical practice of completing *officium* books applied in the *Temporale*, modelled on the *Ordo* that functioned as a supplement to missal books, and the *Commune Sanctorum* for the *Sanctorale*. See Jerzy Bisztyga, ‘Psalterium Andrzeja Piotrkowczyka z 1599 roku jako pierwszy dokument potrydenckiego chorału gregoriańskiego w Polsce’ (unpublished doctoral thesis, The John Paul II Catholic University of Lublin, 2009), pp. 148 and 222. For more information, see Andrew Hughes, *Medieval Manuscripts for Mass and Office: A Guide to their Organization and Terminology* (University of Toronto Press, 1982), p. 119.

² Giordana Mariani Canova, email to the author, 29 January 2021.

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Figure 1. Title page of the Olivetan Psalter with the incipit ‘Ad laudem sanctissime trinitatis et beati benedicti abbatis. Incipit psalterium secundum consuetudinem monachorum ordinis monasticis oliveti.’ Reproduced by permission of the Łódź Archdiocesan Museum.

provenance. The story of this manuscript’s journey into Poland is also a matter of curiosity, taking into account the fact that Olivetans remain almost unknown in Polish historiography. This monastic group’s only representation on Polish lands was a brief stay (from 1919 to 1921) of three monks arriving from the monastery of St Joseph in Tanzenberg, Austria (Gurk-Klagenfurt diocese), at the post-Cistercian abbey in Łąd on the Warta river (Greater Poland), when it was intended that the Łąd monastery and parish would be conferred to them (Figure 2).³ However, in the face of mounting economic hardship, the Łąd monks left the establishment.⁴ It cannot be excluded that when arriving in Poland, the three monks also brought the Olivetan Psalter. Given the lack of information on this codex in the Łódź Archdiocesan Museum, this hypothesis still remains the sole logical explanation of the psalter’s location in Poland.

In consultation with Professor Giordana Mariani Canova (University of Padua), a specialist in Olivetan codex miniatures, I have now dated the psalter to the first half of the fifteenth century, and in the light of a comparative palaeographic analysis with the Olivetan Gradual MS 1184 (c. 1430–39) kept at Yale University, have determined its origin as one of the Olivetan monasteries in Northern Italy (St Hieronymus’s

³ On St Joseph, see Christian Cvetko, ‘L’abbazia olivetana do San Giuseppe a Tanzenberg’, *L’Ulivo: Rivista olivetana di spiritualità e di cultura monastica*, 1 (2014), pp. 72–109 (p. 72).

⁴ Kamil Pozorski, ‘Oliwetanie w Łądzie nad Wartą 1919–1921’, *Polonia Maior Orientalis*, 7 (2020), pp. 99–108 (p. 103).

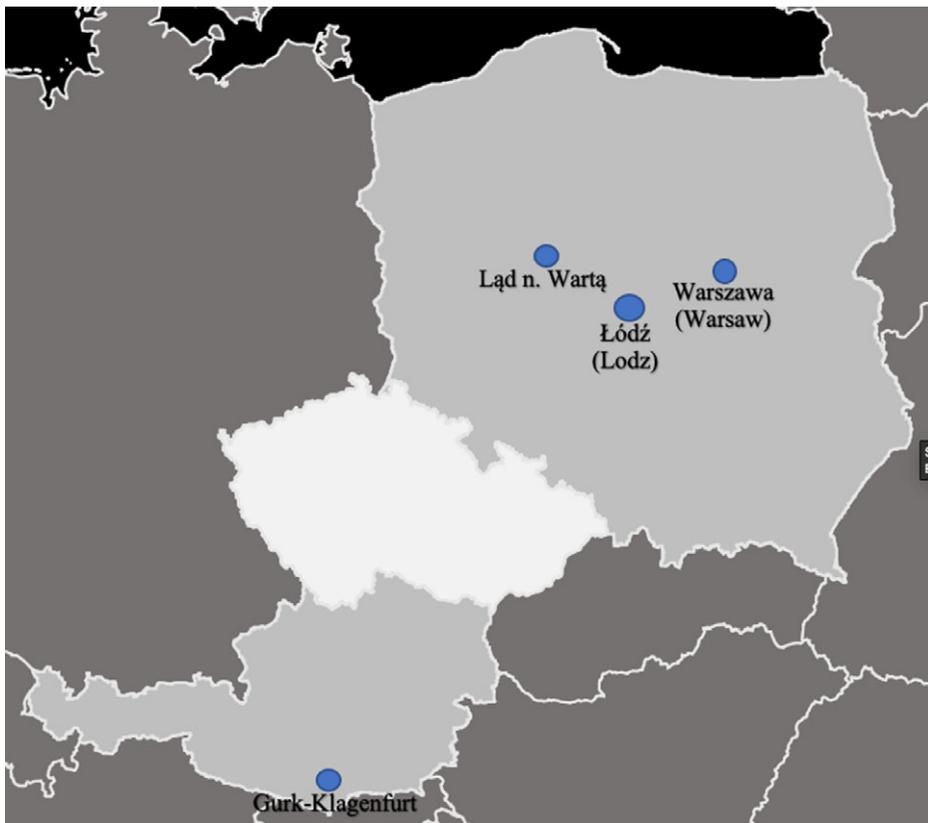


Figure 2. Geographical location of Łódź and Łądnica on the Warta river in Poland, and Gurk-Klagenfurt in Austria; image by the author.

Monastery in Quarto, close to Genoa, or the Convent of Holy Mary in Baggio, close to Milan).⁵ According to an evaluation by Canova, the psalter is definitely not part of the series of Olivetan manuscripts from Monte Oliveto (Congregatio Sanctae Mariae Montis Oliveti), now kept at the cathedral museums of Chiusi, Bologna (the *Psalterium nocturnale secundum morem monachorum montis Oliveti*), and in Ferrara.⁶

⁵ Giordana Mariani Canova, email to the author, 29 January 2021; <<https://collections.library.yale.edu/catalog/16037197>> [accessed 30 January 2021]. The presence of Olivetans in Lombardy goes back to the early fifteenth century. The monastery in Baggio, founded on the initiative of Balzarino Pusterla (c. 1340–1408), was the first in the Lombardian region. It was discontinued on 12 April 1773, and the monks moved to the monastery of St Victor in Milan. Besides the monastery in Baggio, the existence of other monasteries in Lombardy is documented: Santa Maria Incoronata a Nerviano, San Vittore al Corpo a Milano, San Pietro a Civate and San Pietro a Viboldone. See Milvia Bollati, *Un graduale olivetano. Un percorso nella miniatura lombarda del quattrocento* (Paul Holberton Publishing, Sam Fogg and Les Enluminures, 2008), pp. 9–17.

⁶ For the Cathedral Museum of Chiusi, see <<https://www.museodellacattedrale.it/i-corali/>>; for Bologna, see <http://www.bibliotecamusica.it/cmbm/viewschedatwbc.asp?path=/cmbm/images/ripro/gaspari/_Lit/Lit003/>, and for Ferrara, see <<https://artsandculture.google.com/exhibit/i-corali-olivetani-di-san-giorgio-fuori-le-mura/tAIC6HbeU6MeJA>> [all accessed 8 March 2021]. Subsequent references to these and other manuscript sources are from the location initially indicated.

The aim of this paper is to identify all the psalm differentiae appearing in the Olivetan Psalter (*euouae* word variants and their melodic formulae), matching them to one of the eight psalm tones and determining if they are exclusively schemata that are generally used in musical liturgical manuscripts or if the Psalter also contains melodic variants without a correspondence in the chant tradition. For this, we shall avail ourselves of Rebecca Shaw's *Differentiae Database*, catalogues by Peter Wagner and by Zoltán Falvy, and a list of differentiae in Polish sources compiled by Czesław Grajewski.⁷

The Psalm Cadence as a Criterion of Musical Liturgy

A challenge for scholars in late medieval studies is to determine the period's specific liturgico-musical traditions that gave birth to the shaping of local customs in particular centres. Identifying a tradition allows us to determine the individual and universal characteristics of a given centre's liturgy. Church chant, as we know, developed eight fundamental melodic psalm schemata, referred to as the psalm tones, in parallel to the eight church modes. Liturgical books did not usually record the entire melody of the psalm verse, but rather its ending — the differentia — or the beginning (the *inchoatio*) and ending, which can assume varied melodic forms.⁸ In the Gregorian tradition, the differentia formula spans six to thirteen notes. Usually found below the melodic notation is an *euouae* (from the vowels of the *saeculorum amen*) abbreviation of the final words of the small doxology, 'Gloria Patri'.⁹ The task of differentiae is to prepare and aesthetically link the psalm tone with the antiphon's intonation formula, as well as to unequivocally match the psalm melody to one of the eight tones.¹⁰ This type of psalmic notational practice in the form of differentiae has a long tradition, its origins reaching back to the tenth-century treatise *Commemoratio brevis de tonis et psalmis modulandis*.¹¹ A diversity of differentia clausulas led to distinct characteristic traits in

⁷ The *Differentiae Database* can be found at <<https://differentiaedatabase.ca>> [accessed 9 March 2021]; Peter Wagner, *Einführung in die gregorianischen Melodien* (Breitkopf & Härtel, 1921), III, *Gregorianische Formenlehre*, p. 132; Zoltán Falvy, 'Zur Frage von Differenzen der Psalmodie', *Studien zur Musikwissenschaft*, 25 (1962), pp. 160–73. Czesław Grajewski conducted a study of 155 antiphonal books, finding a total of 76,808 differentiae, with 26,422 in cathedral books and 48,634 in monastic books; see *Formuły dyferencyjne psalmodii brewiarzowej w źródłach polskich* (Pomorskie Stowarzyszenie Muzyki Sakralnej, 2004).

⁸ The word *differentia* first appeared in around 850 in Aurelian of Réôme's treatise *Musica disciplina*. The earliest musical treatises utilized several terms to denote the cadence: *varieta*, *divisio*, and *diffinitio*. The term *differentia* won final acceptance; see Joseph Dyer, 'The Singing of Psalms in the Early Medieval Office', *Speculum*, 64.3 (1989), pp. 535–78 (p. 539).

⁹ Grajewski, *Formuły dyferencyjne*, p. 34.

¹⁰ Wagner, *Einführung*, p. 129. For more information see Michel Huglo, *Les tonaires: Inventaire, analyse, comparaison* (Société française de musicologie, 1971), p. 392.

¹¹ *Musica et scholica enchiridias una cum aliquibus tractatulis adiunctis*, ed. by Hans Schmid (Verlag der Bayerischen Akademie der Wissenschaften, 1982), pp. 157–78; see also Jean Claire, 'Les répertoires liturgiques latins avant l'octoéchos', *Études grégoriennes*, 15 (1975), pp. 21–49. *Commemoratio brevis* is a liturgico-musical practice that is one of a kind in the Church of the eleventh century. It bypasses the models of the *saeculorum amen* for the second and sixth tone, ostensibly because both models end on the final notes; Clyde Waring Brockett, "'Saeculorum Amen" and "Differentia": Practical versus

cathedral and monastic psalmody. Music theorists beginning with Aurelian of Réôme made special lists of antiphons with corresponding final cadences and provided reasons for their choices; this process can be traced from its origin in Aurelian's treatise *Musica disciplina* and the oldest tonary from Metz, referred to as the Carolingian Tonary. The subject of both these sources is music that has been described as 'Gregorian chant'. Structural similarities between the psalm formulae of Gregorian chant and those of local Roman repertoire ('Old Roman chant') allow us to trace their history reaching back to the seventh century, a period before the two traditions separated.¹² Also known is the transitoriness of some differentia formulas, most likely due to the change from solo to choral recitation of psalms.¹³ This is testified by a letter from c. 900 from Regino of Prüm to the Bishop of Trier, Rathbod (*Epistola de harmonica institutione*), where he remarks that in some of this diocese's churches, cantors experience difficulty singing psalms (due to the inconsistency of psalm tones): 'chorus psallentium psalorum confusis resonaret vocibus' ['a chorus of psalm singers resounds with discordant voices'].¹⁴ To remedy this, he prepared a tonary based on the antiphony of Trier, where he grouped antiphons according to the tones: 'divisiones etiam tonorum, id est differentias' ['divisions of the tones, that is, the differentia'].¹⁵ In the letter, he gives his editorial principles: respect for tradition, organization of differentia formulas according to *harmonica disciplina*, and a reduction of the number of differentiae by removing those he deemed redundant. However, he placed these on the margins of leaves and destined them for less proficient musicians ('*superstitiosis musicis*'). Finally, Regino selected twelve differentiae, to which he matched the whole antiphonal repertoire; by comparison, the Carolingian Tonary of Metz employs twenty-eight differentiae.¹⁶ This thus constitutes obvious proof of a significant reduction of psalm differentiae.

Liturgical codices, by transmitting a wealth of regional variants of *euouae*, may be a distinctive sign (*signum distinctivum*) for determining the origins of a given book. A differentiation and the number of psalm cadences can testify to a musical link between

Theoretical Tradition', *Musica Disciplina*, 30 (1976), pp. 13–36 (p. 14). *Commemoratio brevis* is considered in two other treatises, the *Musica enchiriadis* and the *Scolica enchiriadis*. All three are linked with the same musical system based on fifths and the corresponding *daseia* notation. The treatises were formulated earlier than the *Alia musica* (ninth/tenth century), and the chant theory they present is still not entirely formed. Due to this, the texts of the *Enchiriadis* group must be understood as a plausible report of well-known musical phenomena, and not as a postulated order in Church song. Thanks to the *Enchiriadis* treatises, we know the musical practice of this period; the chants they notate are among the oldest pieces of liturgy with musical notation. The first complete liturgical manuscripts with notation already come from the turn of the tenth century: Cantatorium 359 of Sankt Gallen, from c. 900; see Robert Bernagiewicz, 'Musica Enchiriadis a praktyka wykonawcza chorału gregoriańskiego', *Annales Lublinenses pro Musica Sacra*, 2.2 (2011), pp. 21–35 (pp. 21–22).

¹² Dyer, 'The Singing of Psalms', p. 539.

¹³ Ibid.; also see Agnes Papp, 'Syllabisch versus neumatisch: Archaisierung und Reduzierung in der Theorie und Praxis der Differentiae?', in *Ars musica and its Contexts in Medieval and Early Modern Culture*, ed. by Paweł Gancarczyk (Liber pro Arte, 2016), pp. 205–21 (p. 205).

¹⁴ *Epistola de harmonica institutione*, in *Scriptores ecclesiastici de musica sacra potissimum*, ed. by Martin Gerbert, 3 vols (Saint-Blaise, 1784; repr. Hildesheim, 1963), I, pp. 230–31. Quoted and translated in Dyer, 'The Singing of Psalms', p. 547.

¹⁵ Ibid.

¹⁶ Ibid.

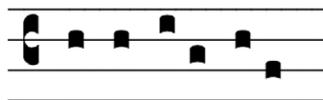
a given codex and a particular liturgico-musical tradition. Psalm differentiae, in Grajewski's opinion, are also a hallmark of some liturgical traditions, for example those of the Cistercians, Norbertans, and Franciscans. In turn, they will not be a significant factor in determining the provenance of cathedral chant. This stems from the results of liturgical reforms introduced in some monasteries in the second millennium's first centuries. European codices (from the thirteenth and fourteenth centuries) fundamentally exhibit a rather uniform resource of differentiae. According to Grajewski, some counter-opinions were likely based on a limited selection of sources. His research into differentiae in Polish sources did not conclude that any differentiae in the Gregorian tradition were exclusively linked with a defined European geographical area.¹⁷ Thus the position of Wagner and Falvy that a geographical criterion would be more important than a liturgical one is no longer tenable.¹⁸ According to Grajewski's determinations, some psalm cadences can also be a hallmark of certain traditions on the aesthetic level, when a psalm ending is assigned to a concrete melodic antiphonal type:

If several hundred antiphons passing through a liturgical year are linked in one tradition with several dozen differentiae, while another tradition employs such endings more, or distinctively other ones (at least some), then obviously the rule for distributing antiphons into defined groups can become a criterion pointing out liturgical provenance.¹⁹

As confirmation, he gives the Advent antiphon *Ecce Dominus veniet* and a Maundy Thursday liturgical antiphon, *Traditor autem dedit eis signum*. In the great majority of sources, the former is linked with the basic ending of Tone V (Example 1). In the case of *Traditor autem dedit eis signum*, the general solution is a melody in Psalm Tone I with a differentia the greatest part of which forms the psalmody of the *officium mode re* (Example 2).

Linking a specific psalm cadence with a defined melodic antiphonal type can narrow down the scope of questions of provenance in reference to an unknown codex, under the condition that we have at our disposal a network of antiphons and psalms for particular chant traditions.²⁰ In the light of research by François-Auguste Gevaert, we can distinguish around forty melodic antiphonal types that appear regularly within the entire Gregorian repertoire.²¹

Example 1 Tone V differentia.



¹⁷ Czesław Grajewski, 'Dyferencje psalmowe: Uwarunkowania historyczne i estetyczne', *Saeculum Christianum*, 12.1 (2005), pp. 139–46 (p. 143).

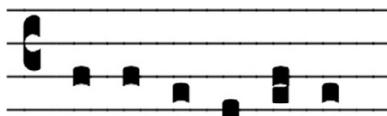
¹⁸ Wagner, *Einführung*, p. 137; Falvy, 'Zur Frage'.

¹⁹ Grajewski, 'Dyferencje psalmowe', pp. 143–44.

²⁰ *Ibid.*, p. 145.

²¹ François-Auguste Gevaert, *Les Origines du chant liturgique de l'Église latine* (A. Hoste, 1890); Grajewski, 'Dyferencje psalmowe', p. 145.

Example 2 Tone I differentia.



Psalm Cadences in the Łódź Psalter

Euouae word formulae

No formal requirement exists for a differentia to have six textual syllables; such a condition also did not exist in the Middle Ages. Beginning in the eighth century, psalm differentiae were notated with the help of five or six *euouae* syllables, depending on the scribe's wishes and available page space.²² Italian codices, and the Olivetan Psalter of Łódź which belongs with them, have eighteen variants of the *saeculorum amen* doxology's syllables (see Table 1).²³ The Olivetan Psalter registers a total of fifty-two differentia word formulae, with lengths varying from three to six syllables; their distribution is shown in Table 2.

The *euouae* formula in its model shape is among the most commonly disseminated in Italian codices, being noted in books from Ivrea, Montecassino, and Naples. The *e-o-e* differentia appears in manuscripts from such locations as Arezzo, the Montecassino monastery, Naples, Orvieto, Perugia, Rome, and Tropea; the *euo-ae* formula is notated in manuscripts from Arezzo, Orvieto, and Pisa; the *e-o-ae* shape is known in codices from Montecassino and Perugia; and the *euou-e* clausula has been applied in manuscripts from Apulia and Bologna.²⁴

Five clausulas are present in the Psalter of Łódź out of the eighteen employed in Italian codices. Like the Italian books, the Psalter avails itself most readily of the full *euouae* formula (twenty-four times), *e-o-e* slightly less often (eighteen times), occasionally *e-o-ae* (eight times), and the *euo-ae* and *euou-e* once each. The melodic analysis of these formulas is obviously critical for the identification of the liturgico-musical tradition of this codex; however, their textual shape is already an indication that the Łódź manuscript utilizes not only the full (universal) version of the *euouae* notation, but also partial variants present in Italian transmissions. It thus imitates the practice of native transmission, including Olivetan psalters, among others those from Chiusi (*euoae*, fol. 59^v) and Bologna (*eoae*, fols 44^r, 92^r, 138^v, 151^r, 154^r, and 203^v).²⁵

The 'catalogue' of *euouae* formulas is amplified by more textual variants distinguishing between the letters *u* and *v*. They have been identified in two Olivetan books from

²² Grajewski, *Formuły dyferencyjne*, p. 36.

²³ Bonifacio Giacomo Baroffino, 'Le differenziae nei codici Italiani', *Ecclesia Orans*, 9 (1992), pp. 61–68 (p. 63).

²⁴ *Ibid.*, pp. 64–65.

²⁵ The Chiusi psalter can be found at <<https://www.museodellacattedrale.it/salterio-u/>> [accessed 14 April 2021].

TABLE 1
VARIANTS OF THE NOTATION OF
THE *SAECULORUM AMEN* DOXOLOGY
IN THE ITALIAN CODICES

I	Seuouae
II	S—ae
III	Seuo—ae
IV	Se—o—e
V	euouae
VI	euoua
VII	euou—e
VIII	euou
IX	euo—ae
X	euo—e
XI	euo
XII	e—o—ae
XIII	e—o—e
XIV	e—o
XV	e—e
XVI	—ae
XVII	euorae
XVIII	euououae

TABLE 2
DISTRIBUTION OF WORD FORMULAE
IN THE OLIVETAN PSALTER

<i>Word formula</i>	<i>Number of appearances</i>
euouae	24
e—o—e	18
euo—ae	1
e—o—ae	8
euou—e	1

the fifteenth century kept in Modena: the Psalter (*evouae*, fols 27^r, 32^v, 72^r; *evovae*, fols 6^v, 22^v, 27^r, 28^v) and the Hymnary and Psalter (*euovae*, fols 30^v, 34^v; *evovae*, fols 34^v, 37^r, 41^r, 52^v; *evouae*, fols 39^r, 47^v).²⁶

²⁶ The Psalter can be found at <<http://bibliotecaestense.beniculturali.it/info/img/mus/i-mo-beu-alfa.r.1.1.html>> and the Hymnary and Psalter at <<http://bibliotecaestense.beniculturali.it/info/img/mus/i-mo-beu-alfa.q.1.2.html>> [both accessed 14 April 2021].

Euouae melodic formulae

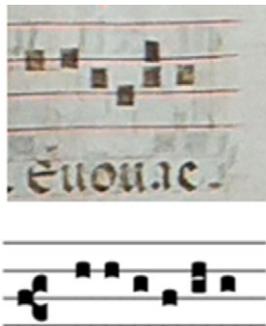
The Olivetan Psalter of Łódź furnishes a graphic presentation of differentiae of all eight psalm tones. Nowhere is the psalm tone represented completely, i.e. containing all constitutive elements: intonation, tenor, mediant, repeated tenor, and termination. Presenting psalm tones exclusively with the use of differentiae was already common in early liturgico-musical manuscripts and the oldest theoretical treatises.²⁷ This practice stemmed from it being possible to perform each psalm on each of the eight psalm tones, depending on the antiphonal mode performed with the psalm. An exception to this was Psalm 113, performed in *tonus peregrinus*, thus shown in full or in part.²⁸ Below, I present the catalogue of differentiae melodic formulae of the particular psalm tones in the Olivetan Psalter of Łódź.

Tone I

The differentia formulae of Tone I have four variants. The first, with termination Ig and ending with a *punctum*, is one of the most common endings in all European sources that are cathedral and monastic in nature (Example 3).²⁹ In the Olivetan codex, it appears only once. The antiphonal incipit *Domine in virtute* relative to this ending begins with modal degree III (*fa*).

The differentia with termination Ig ending with the neume *torculus* makes its appearance twice in the Olivetan Psalter and is a heretofore unknown termination (Example 4). Wagner does not quote it in his survey of psalm cadences based on three selected manuscripts: Italian (Cod. Lucca 601), French (Cod. Paris nouv. acquis. 1235), and South German (Cod. München Clm 14965a).³⁰ It is also not noted by Falvy, who, relative to Wagner, considerably amplified the geographical area he studied

Example 3 Differentia Ig, ending with *punctum*.



²⁷ Claire, 'Les répertoires liturgiques'.

²⁸ Hughes, *Medieval Manuscripts*, p. 231.

²⁹ See <<https://differentiaedatabase.ca/differentia/66d>>. Shaw gives 125 cathedral and monastic manuscripts (eleventh to seventeenth centuries) containing this differentia.

³⁰ Wagner, *Einführung*, p. 132.

Example 4 Differentia Ig, ending with the neume *torculus*.



Example 5 Falvy's sources: A — English, B — French, C — Italian, D — Swiss, E — German, F — Czech, G — Hungarian.

and considered new sources, preparing a table of differentiae appearing in Western and Central Europe (Example 5).³¹ These differentiae are also not given in the Differentiae Database, which considers 161 manuscripts (with 227 rare differentiae of Tone I, including Polish sources).

I have also so far discovered an identical differentia form (*la la sol fa sol-la-sol*) in the fourteenth-century antiphony *De Sanctis* from Płock (Poland), which most likely

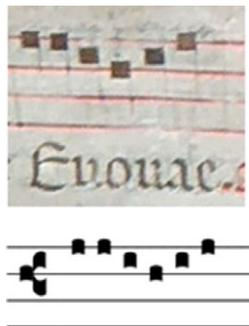
³¹ Falvy has supplemented cadences noted in the work of Wagner with those existent in four other codices: an English codex (published in *Paléographie Musicale* (Tournay, 1922), xxii), a two-volume Swiss Benedictine antiphony (*Antiphonarium monasticum, Secundum traditionem Helveticae Congregationis Benedictinae I–II* (Typis Monasterii B.M.V. de Monte Angelorum, 1943)), and a Czech codex from the thirteenth and fourteenth centuries (Strahovská Knihovná D.E.I. 7). His sources are completed by three more codices in the German group and by Hungarian material; see Falvy, 'Zur Frage', pp. 160–61.

travelled there with French Benedictines.³² While melodically the differentia form in the Olivetan Psalter sounds identical to that given by Falvy (1A, 1B, 1C, 1D, and 1G in Example 5), a significant notational difference makes itself known: the Olivetan codex puts down a *torculus*, while Falvy's sources use a *pes* and *punctum* combination. The formula identified in the Olivetan Codex of Łódź, confirmed in the Płock Antiphonary, may be a new category for this tone's ending, if we accept its authenticity. It is worth adding that this clausula is also unknown in Polish sources ranging from the twelfth to the eighteenth centuries, both monastic (Dominican, Augustinian, Benedictine, Carthusian, Cistercian, Canons Regular of the Lateran, Bernardine, Claretian, Franciscan, Norbertine, Teutonic, Holy Sepulchran, and Carmelite) and cathedral.³³ Thus the discovery of this previously unidentified cadence, if it was truly written faultlessly, i.e. with a final *sol-la-sol* ligature, and if it was produced elsewhere, could be a valuable contribution to research and amplify the European panorama of psalm endings with a new formula. It is also possible, given the inaccuracies often made by copyists in the notation of the melody, that this is a typical cadence: *la la sol fa sol-la sol*.

The syllabic form of differentia with termination Ia (Example 6) is noted in the Olivetan codex seven times. Shaw finds it in ninety manuscripts, including nineteen Italian ones.³⁴ This differentia is also recorded in Olivetan psalters from Chiusi (*Salterio* U, fol. 59^v; *Salterio* V, fol. 41^r) and Modena (Hymnary and Psalter, fols 49^v, 54^r, and 55^r; Psalter, fols 61^r, 85^v, and 136^v).³⁵ The psalter from Modena also notes this differentia with a single incipit note: *la sol fa sol la* (fols 41^v and 64^r), which is an additional melodic variant of this clausula and previously unknown to research (Example 7).

The differentia in Example 8, ending with a characteristic *climacus* and *finalis* on modal degree I, is denoted *D* in the *Liber Usualis*.³⁶ The treatise of James of Hesbaye

Example 6 Differentia Ia, Łódź psalter.



³² Tadeusz Maciejewski, 'Graduał Bolesława II Mazowieckiego', *Musica Medii Aevii*, 6 (1997), pp. 7–35.

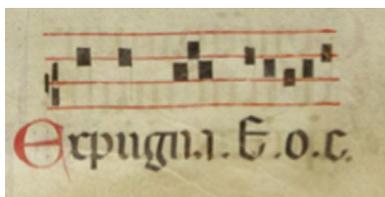
³³ Grajewski, *Formuły dyferencyjne*, pp. 15, 234, and 261.

³⁴ See <<https://differentiaedatabase.ca/differentia/64b>>.

³⁵ For *Salterio* V, see <<https://www.museodellacattedrale.it/salterio-v/>> [accessed 14 April 2021].

³⁶ *Liber Usualis Missae et Officii pro Dominicis et Festis cum cantu gregoriano ex editione vaticana adamussim excerpto et rhythmicis signis in subsidium cantorum a solesmensibus monachis diligenter ornato* (Eboraci, 1958), p. 128.

Example 7 Differentia Ia, Modena psalter.



Example 8 Differentia Id.



mentions this differentia as one of the two most common endings of this tone.³⁷ The Olivetan Psalter of Łódź notes this differentia once, after the antiphon to St Hieronymus, *Letetur nostra*. Shaw notes this ending in eighty-three manuscripts, including fifteen Italian ones (six monastic and nine cathedral).³⁸ In Polish manuscripts, too, this differentia is more readily employed by cathedral codices (cathedral 27.4 per cent, monastic 9.5 per cent).³⁹ Wagner and Dominicus Johner furnish the information that this termination was particularly often combined with the singing of the Magnificat and Benedictus canticles.⁴⁰ It is difficult to consider this a general rule, however, among other reasons due to the psalm endings' link with a given intonational formula of the antiphon, rather than its place in the *officium*. Even in a case where both criteria produce a convergence, the latter invariably follows from the former. Grajewski counts this cadential formula, considering its ornamentation, with the solemn forms of Psalm Tone I.⁴¹ An isolated case of this differentia in the Olivetan Codex can be considered as confirmation of its place outside readily employed endings in monastic sources.

³⁷ *Scriptorum de musica medii aevi nova series a Gerbertina altera*, ed. by Edmond de Coussemaker, 4 vols (Durand, 1864–76; repr., Olms, 1963), p. 329.

³⁸ See <<https://differentiaedatabase.ca/differentia/72b>>.

³⁹ Grajewski, *Formuły dyferencyjne*, p. 56.

⁴⁰ According to Wagner, the source of this ending was a tenth-century differentia; *Einführung*, pp. 89 and 134. As Johner remarks, according to an earlier custom, the antiphon was not only repeated before and after the canticle. In the thirteenth century, the antiphon to the Magnificat and Benedictus was performed three times, and in practice four times: at the opening, then before and after the Gloria Patri, and a final time after the Sicut erat. This was in order to emphasize a particular solemnity. To achieve this, the termination *Id* was most frequently used; see Johner, *Wort und Ton im Choral* (Breitkopf & Härtel, 1953), pp. 266 and 285.

⁴¹ Grajewski, *Formuły dyferencyjne*, p. 87.

Example 9 Differentia IId (variant 1).

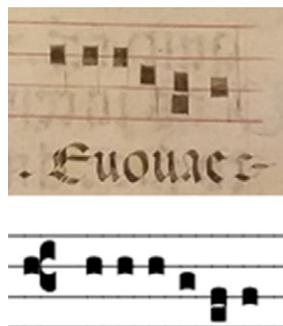
*Tone II*

The Psalter of Łódź notes two differentiae of Tone II, with the passing note *mi*. It notes the differentia with termination IId four times (Example 9). This category was mostly adopted by monastic centres, although it also appears in some cathedral sources.⁴² It is also given by other Olivetan books, including the Psalter of Modena (fols 6^f, 6^v, 9^f, 75^f), the Hymnary and Psalter (fols 125^v, 127^v, 130^v), and the Psalter of Chiusi (*Salterio* U, fols 14^v). The Psalter of Łódź notes Example 10 once. This ending is known both in cathedral and monastic sources, especially in the Franciscan family of manuscripts.⁴³

Tone III

Differentiae of Psalm Tone III and their interpretation pose the greatest research difficulties. They are caused by a large amount of differentiation in the *euouae* formula (usually abbreviated, but also lengthened beyond six syllables) and difficulties in matching them to

Example 10 Differentia IId (variant 2).



⁴² See <<https://differentiaedatabase.ca/differentia/152b>>.

⁴³ See <<https://differentiaedatabase.ca/differentia/152c>>.

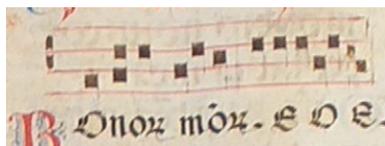
the structural model. In addition, the semitonal interval between modal degrees V and VI of mode III was conducive (through ‘semitonal attraction’) to moving the tenor mode onto the note C.⁴⁴ Of assistance in interpreting the differentia of Tone III is the following rule: ‘regardless of whether the beginning notation has two, three, or more notes from modal degrees V and VI (inclusive), the first note that follows them already belongs to the fourth syllable of the *euouae* formula and falls on degree IV (*la*)’. Finals of Tone III can be found on degrees I, II, III, IV, V, or VI, as conditioned by the antiphonal intonation’s form in mode III.⁴⁵ The differentia of Tone III in the Psalter of Łódź has one variant, with a final on modal degree IV (*la*) and ending with the neume *clivis* (*si-la*) (Example 11).

Differentiae in this category are the most frequent, as confirmed by Shaw’s catalogue. This schema appears in ninety-four European manuscripts and is the most popular ending of Tone III.⁴⁶ In the Łódź Psalter, this clausula is linked with antiphons beginning with modal degree III which quickly move to the dominant (Example 12: *Bonorum meorum*; Example 13: *Alleluia. Euouae*; Example 14: *Gaudete*

Example 11 Differentia IIIa.



Example 12 Antiphone *Bonorum meorum* with IIIa differentia.

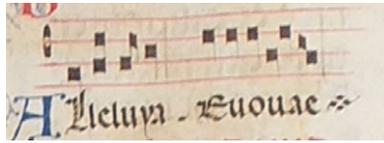


⁴⁴ ‘A Roman, and — particularly — Cistercian version of this chant, already more than once has a differing structural outline, expressed in the replacement of *deuterus* modal degree V by modal degree VI. Such shifts are quite visible especially in locations where modal recitatives occur based on those degrees’; Józef Ścibor, *Geneza struktur modalnych chorału gregoriańskiego w świetle traktatów enchiridias* (Towarzystwo Naukowe KUL, 1999), p. 32.

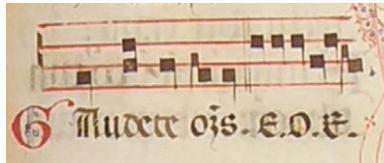
⁴⁵ Grajewski, *Formuły dyferencyjne*, pp. 97–98.

⁴⁶ See <<https://differentiaedatabase.ca/differentia/97a>>.

Example 13 Antiphone *Alleluia. Euouae* with IIIa differentia.



Example 14 Antiphone *Gaudete omnes* with IIIa differentia.



omnes). From the aesthetic point of view, this is the most perfect way (i.e. with smooth motion) of combining two portions of a melody. As Examples 12–14 illustrate,

the third modal degree is a plane of reflection: the differentia melody aims at it, and after attaining it already in the antiphonal intonation, changes direction and moves quickly up to the dominant, which is a second plane of melodic reflection, this time downwards.⁴⁷

Tone IV

Differentiae of Psalm Tone IV are an important secondary element in research aiming to establish the codex's provenance. Contributing to this is the regular architecture of this clausula, whose highest note (*si* or *do*) invariably falls on the fourth *euouae* syllable. The Olivetan Psalter of Łódź has two schemata of this differentia, both with a *mi* final. One differentia, with termination IVE (Example 15), appears once; in Polish sources, this is applied exclusively in monastic chant.⁴⁸ Shaw, who notes this ending in fifty-two manuscripts, also identifies it in fourteen cathedral codices.⁴⁹ However, it should be noted that Grajewski bases his conclusions only on sources from Poland. On the other hand, it should be taken into account that the cathedral manuscripts identified by Shaw have cadences written rather sparingly, which can be seen in the catalogue. Nevertheless, this differentiation, which cannot be ruled out, may be characteristic of monastic traditions. Clarification of this issue requires further study of the sources, however.

The other ending with IVE (Example 16) is not included in the work of Wagner or Falvy.⁵⁰ Shaw identifies it in seven antiphonaries of Franciscan provenance.⁵¹ Also in

⁴⁷ Grajewski, *Formuły dyferencyjne*, p. 101.

⁴⁸ *Ibid.*, p. 128.

⁴⁹ See <<https://differentiaedatabase.ca/differentia/19a>>.

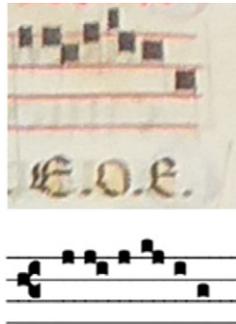
⁵⁰ Wagner, *Einführung*, p. 135; Falvy, 'Zur Frage', p. 165.

⁵¹ See <<https://differentiaedatabase.ca/differentia/15l>>.

Example 15 Differentia IVE (variant 1).



Example 16 Differentia IVE (variant 2).



Polish sources, this differentia appears in twenty-two Franciscan antiphonaries. Perhaps the origins of this clausula form stemmed from its application in a more solemn *officium*, as suggested by its character.⁵² This differentia appears in the Psalter of Łódź once, and up to now constitutes the only instance of it being localized outside Franciscan codices, which may be another *signum distinctivum* of the Olivetan book.

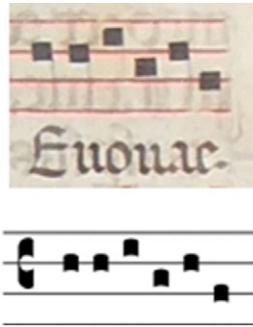
Tone V

Tone V is among the group of tones with a small number of endings. Of greatest importance is that in [Example 17](#), noted five times in the Psalter of Łódź. Due to the retainment of *si* natural, it belongs among the oldest Roman chants, already employed before the *octoechos* system was shaped. The version without a flattened *si* agrees perfectly with the structure of the entirety of Psalm Tone V ([Example 18](#)), both in versions transmitted by manuscript and in modern books.⁵³

⁵² Grajewski, *Formuły dyferencyjne*, pp. 132 and 275.

⁵³ Ścibor, *Geneza struktur modalnych*, pp. 116–17.

Example 17 Differentia Va.



Example 18 Psalm Tone V.

TONUS V

Sic inci-pi-tur, et sic flécti-tur, † et sic me-di-á-tur; *

Atque sic fi-ní-tur. Atque sic fi-ní-tur.

Shaw's catalogue identifies this differentia in 143 European manuscripts, monastic and cathedral in nature, from the tenth to the sixteenth centuries.⁵⁴ Other Olivetan books also avail themselves of it, e.g. those from Chiusi (*Salterio U*; *Salterio V*; *Antiphonario I*) and Modena (the Psalter and the Hymnary and Psalter).⁵⁵ In Polish sources, it constitutes 91.1 per cent of all monastic and 70 per cent of cathedral codex endings.

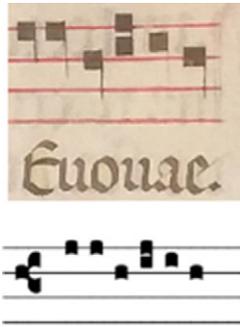
Tone VI

Tone VI, similarly to Tone V, has only a few psalm differentiae. It is a common trait of mode *fa* psalmody. The Olivetan Psalter of Łódź has only one ending with this tone (Example 19). Shaw's catalogue furnishes fifty-one differentiae of Tone VI, this being

⁵⁴ See <<https://differentiaedatabase.ca/differentia/129a>>.

⁵⁵ For the *Antiphonario I*, see <<https://www.museodellacattedrale.it/antifonario-I/>> [accessed 23 April 2021].

Example 19 Differentia VIF.

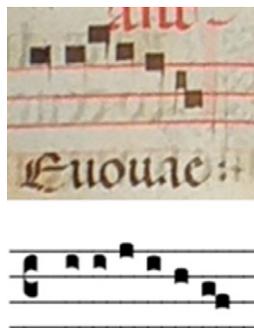


among the most popular. It makes its appearance in 131 European manuscripts.⁵⁶ It is also highly favoured in Polish sources, constituting 98.8 per cent of endings in cathedral codices and 95.6 per cent in monastic books.⁵⁷ In the Psalter of Łódź, it appears five times, never in transposition.

Tone VII

Differentiae of Tone VII in the Psalter of Łódź possess two ending schemata. That in [Example 20](#), with termination VIILA, appears in 133 manuscripts and constitutes the most popular ending of Tone VII.⁵⁸ In the Psalter of Łódź, it appears twice. The differentia with termination VIIDO, [Example 21](#), is the second most popular ending from among 137 clausulas of this tone discovered to date; until now, it has been identified in ninety-nine manuscripts.⁵⁹ In the Psalter of Łódź, it appears only once. It is also found in Olivetan books from Chiusi.

Example 20 Differentia VIILA.



⁵⁶ See <<https://differentiaedatabase.ca/differentia/7a>>.

⁵⁷ Grajewski, *Formuły dyferencyjne*, p. 164.

⁵⁸ See <<https://differentiaedatabase.ca/differentia/143b>>.

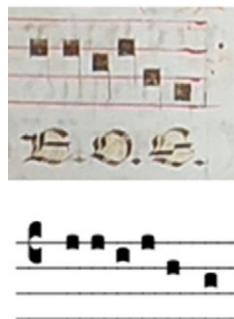
⁵⁹ See <<https://differentiaedatabase.ca/differentia/148b>>.

Example 21 Differentia VIIDO.

*Tone VIII*

The differentiae of Psalm Tone VIII manifest a syllabic melodic motion. Their characteristic architectural trait is a stepping down of the recitative degree by the interval of a second (sometimes a third), a return to the reciting note (*do*), and motion to the final note.⁶⁰ In the Psalter of Łódź, the differentiae of this tone possess two schemata for the syllabic structure, due to which they are less festive than some endings of Tones I or IV, despite their joyous character.⁶¹ This differentia with termination VIIIIG (Example 22) is among the most popular in the studied codex (it occurs twenty times). It is also readily employed by other Olivetan books, such as the psalters and antiphonaries from Chiusi (*Salterio U*; *Salterio V*; *Antiphonario*

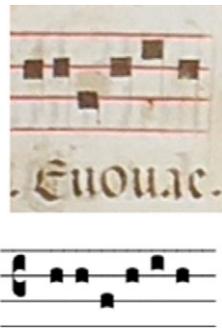
Example 22 Differentia VIIIIG.



⁶⁰ For the plagal form of *tetrardus*, there is a characteristic span of the modal fourth in the melodic development, with the tenor placed on degree IV of the scale, as a result of the ‘semitonal attraction’, *si* to *do*. This kind of phenomenon effaces the difference between the authentic and plagal varieties of mode IV; a ‘frequent modal instability’ as a trait in *tetrardus* composition is noted by Brad Maiami, ‘Approaching the Communion Melodies’, *Journal of the American Musicological Society*, 53.2 (2000), pp. 209–90 (p. 236). See also Ścibor, *Geneza struktur modalnych*, p. 53.

⁶¹ Grajewski, *Formuły dyferencyjne*, p. 191.

Example 23 Differentia VIIIIDO.



A-N).⁶² Wagner considers this differentia as characteristic of Italian manuscripts.⁶³ New research shows that this termination is also found in codices of other provenance, as demonstrated by Shaw's catalogue, where this ending appears in 125 manuscripts.⁶⁴ It constitutes the most common ending, regardless of whether in monastic or cathedral codices.

Shaw identifies the form of differentiae with termination VIIIIDO (Example 23) in 102 manuscripts.⁶⁵ Its characteristic trait is its avoidance of the note *si*. In the Psalter of Łódź, it appears four times and is also noted in the Olivetan books from Chiusi.⁶⁶

Conclusion

This study of the differentiae in the Olivetan Psalter has allowed us to match them to the corresponding psalm tones. The statistical participation of each differentia in creating the psalmody of the codex is shown in Figure 3, while Table 3 breaks down the differentia according to their tones and their quantity in the codex, in addition to the general number of differentiae for each psalm tone.

The Olivetan Psalter usually applies Tone VIII (twenty-four differentiae with two melodic schemata: 1–20 and 2–4) and Tone I (ten differentiae with four melodic schemata: 1, 2, 4–1, and 3–7). These data do not diverge from the general European tendency, as confirmed in Shaw's catalogue, which gives a total of 1,273 separate differentiae, including 227 melodic schemata for Tone I and 129 for Tone VIII. Polish sources (monastic and cathedral in nature) also show Tones I and VIII, where together they take up around 50 per cent of *officium* psalmody.⁶⁷ In addition, Tones I and VIII enjoy the greatest popularity in modern Polish chant from the *Liturgia godzin* (*Liturgy*

⁶² For the *Antiphonario* A-N, see <<https://www.museodellacattedrale.it/antifonario-n/>> [accessed 26 April 2021].

⁶³ Wagner, *Einführung*, p. 137.

⁶⁴ See <<https://differentiaedatabase.ca/differentia/118a>>.

⁶⁵ See <<https://differentiaedatabase.ca/differentia/99d>>.

⁶⁶ See <<https://www.museodellacattedrale.it/corridioio-coral/>> [accessed 2 May 2021].

⁶⁷ See <<https://differentiaedatabase.ca/index>>; Grajewski, *Formuły dyferencyjne*, p. 229.

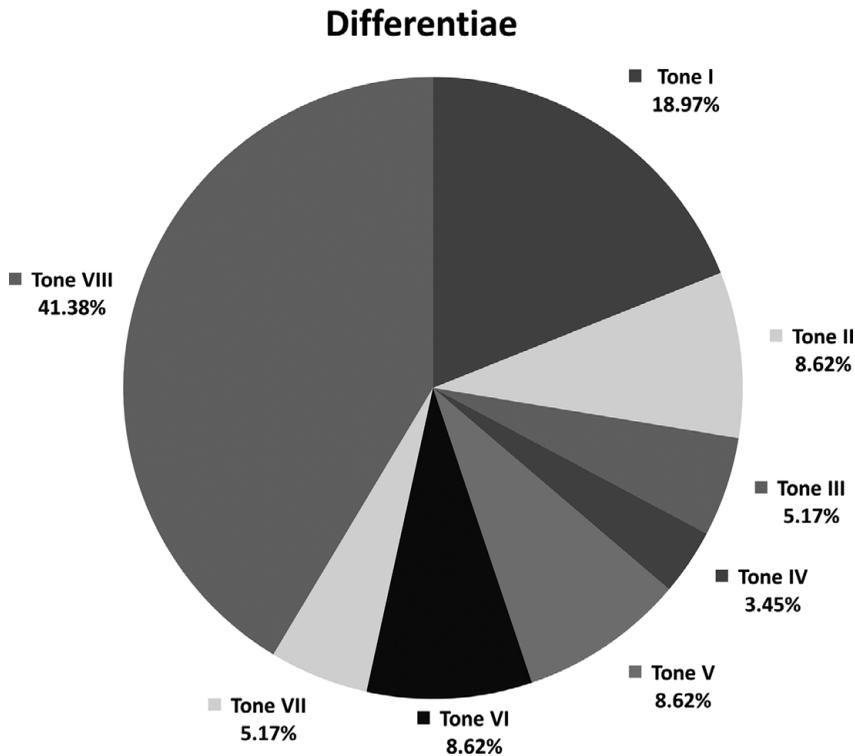


Figure 3. Percentage share of psalm differentiae participation in tones.

of Hours) in the Paschal Triduum.⁶⁸ They are also a flagship in Polish religious song in the living tradition.⁶⁹ The data to which I have referred only confirms that the psalmody of Tones I and VIII was among the most popular and common; mode *re* was specific to Gallic chant and mode *sol* to Roman. Most likely, they were easily assimilated, avoiding performance difficulties as found in Tone II. This is because Tone II, due to being intonationally identical with Tone VIII, gave problems in the ending cadence.⁷⁰ In relation to the Olivetan Psalter, drawing a general conclusion on the basis of one unique codex is of course problematic, but its favouring of Tones I and VIII confirms their frequent usage in other European liturgico-musical sources.

⁶⁸ Beata Bodzioch, 'Polskie śpiewy Liturgii godzin Triduum Paschalnego (zarys problematyki)', *Liturgia Sacra*, 7.1 (2001), pp. 81–93 (p. 87).

⁶⁹ Tone VIII is used in Polish psalmody with particular frequency, and simultaneously exhibits a large level of agreement with the Gregorian model. It most often functions in tandem with the Magnificat text. These two tones are also dominant in much church song employing psalmodic formulas in their melodies; see Bolesław Bartkowski, *Polskie śpiewy religijne w żywej tradycji: Style i formy* (Polskie Wydawnictwo Muzyczne, 1987), p. 122; Antoni Zoła, *Melodyka ludowych śpiewów religijnych w Polsce* (Polihymnia, 2003), pp. 80–85.

⁷⁰ Bartkowski, *Polskie śpiewy religijne*, p. 125.

TABLE 3
MELODIC SCHEMATA OF THE PSALM
DIFFERENTIAE IN THE OLIVETAN PSALTER
ACCORDING TO PSALM TONES AND QUANTITY

<i>Psalm tone</i>	<i>Number of differentiae</i>	<i>Number of melodic schemata variants</i>	<i>Number of each variant</i>
I	11	1	1
		2	1
		3	7
		4	1
II	5	1	4
		2	1
III	3	1	1
IV	2	1	1
		2	1
V	5	1	1
VI	5	1	1
VII	3	1	2
		2	1
VIII	24	1	20
		2	4

TABLE 4
PERCENTAGE SHARE OF PSALM DIFFERENTIAE
FOR PARTICULAR MODES

<i>Mode</i>	<i>Number of differentiae</i>	<i>Percentage</i>
I	16	27.59
II	5	8.62
III	10	17.24
IV	27	46.55

Equally interesting is an analogy-based comparison without division into authentic and plagal modes (Table 4). Predominant in creating the psalmody of the Olivetan Psalter is mode IV (on G), characteristic for Roman liturgy. Second place is taken by mode I (on D), which is a trait of Gallic liturgy; the next place is occupied by psalms sung in mode III (on F), defined by Bruno Stäblein as a folk modus (*Volksweise*) and created latest.⁷¹ The smallest part in creating psalm melodies in the codex is played by mode II (on E), characteristic of Milan liturgy.

⁷¹ Cf. Grajewski, *Formuły dyferencyjne*, p. 231.

What catches our attention is the identification in the Psalter of a hitherto unrecorded manuscript variant of the differentiae of Tone I (Example 4). Since this is a single case in the Olivetan book, it is difficult at this stage of research to take a clear stance as to whether we are actually dealing with the original formula of the psalm differentia: one case of this termination recorded in the Olivetan Psalter or the Płock Antiphonary does not necessarily prove its authenticity. Nevertheless, this case encourages further research, taking into account a much wider range of sources. Only then will it be possible to take a stance as to whether this single differentia actually constitutes an original category of psalm differentiations.

A similar approach should be taken in the case of the Tone IV differentia (Example 16). At this stage of the research, this is the only case I have found so far of its location outside Franciscan codices. If it were confirmed in other Olivetan books, it could constitute an important distinctive feature of the Olivetan tradition. The fact of noticing these differentiations undoubtedly gives a clear impulse to undertake a broad search of the sources of the Olivetan codices. Only if it were possible to find identical endings in codices of this provenance could we then try to identify the elements of psalmody characteristic for Olivetans and determine their degree of dependence on other monastic traditions. A wide comparative study of liturgico-musical manuscripts would doubtlessly enable us to define the contribution of the Olivetan order to the heritage of European musical culture.