

Nothing Ordinary About It: The Mass Proper as Early Music Jigsaw Puzzle

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Early music scholars Patrick Macey and Russell Murray, Jr. have pinpointed two common classroom challenges posed by music from the Middle Ages and the Renaissance: the vast cultural gulf separating these eras from contemporary students, and the question of how to teach musical and cultural continuities across such a large span of time.¹ These challenges are particularly acute in the undergraduate music history survey, which is frequently students' first sustained exposure to the discipline of musicology and, therefore, potentially their first critical and pervasive encounter with guiding musicological concepts such as historical context, aesthetic thought, musical style, and musical meaning.² The solutions that Macey and Murray offer—helping students develop a rich context for understanding the total lived experience of early musicians and creating homemade anthologies that build bridges across generations and centuries—are creative, convincing, and practical. These effective solutions tend to focus on music's

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1. Patrick Macey, "Providing Context: Teaching Medieval and Renaissance Music," in *Teaching Music History*, ed. Mary Natvig (Aldershot, Hants and Burlington, VT: Ashgate, 2002), 3–11 and Russell Murray, Jr., "Creating Anthologies for the Middle Ages and Renaissance," in *idem*, 225–37.

2. There is a growing body of literature on how to transfer disciplinary ways of thinking into classroom instruction. See, for example, Janet Gail Donald, *Learning to Think: Disciplinary Perspectives* (San Francisco: Jossey-Bass, 2002); Regan A. R. Gurung, Nancy L. Chick, and Aeron Haynie, eds., *Exploring Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* (Sterling, VA: Stylus, 2008); Gerald Nosich, *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum*, 4th ed. (Upper Saddle River, NJ: Prentice Hall, 2011); and David Pace and Joan Middendorf, eds., *Decoding the Disciplines: Helping Students Learn Disciplinary Ways of Thinking* (San Francisco: Jossey-Bass, 2004).

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immanence in those distant cultures, but, as Melanie Lowe has argued, it is also possible to make meaningful and concrete connections to the past by exploring traces of those eras in our own time and how they arrived here.³ This article approaches the challenges described by Macey and Murray from a similarly retrospective vantage that connects past and present and offers new pedagogical solutions to the problem areas they have identified.

Important musical and cultural elements animating early sacred music are still present in contemporary Roman Catholicism, although they are not always readily apparent. The Mass itself and the liturgical calendar, for example, have maintained remarkably rigid skeletal structures despite undergoing at least two substantial reconfigurations and adaptations over the last five centuries.⁴ Several common undergraduate survey textbooks also note that plainchant persisted in Roman Catholic worship long after the Renaissance and contributed to Western musical life more generally until it disappeared as a relatively widespread repertory following the Second Vatican Council (1962–65).⁵ A sweeping claim such as this one—that a vital component of Western music’s development could disappear so quickly—warrants interrogation in the classroom and provides a practical point of entry for introducing students to early Christian music. How and why plainchant became, or supposedly became, collateral damage in the wake of the Council is an inviting musicological mystery, and some of the textbooks themselves seemingly urge us to investigate.

3. Melanie Lowe, “Teaching Music History Today: Making Tangible Connections to the Here and Now,” *Journal of Music History Pedagogy* 1, no. 1 (2010): 45–59; <http://www.ams-net.org/ojs/index.php/jmhp/article/view/17/24>.

4. The two major reconfigurations of the Mass and the liturgical calendar followed the Council of Trent (1545–63) and the Second Vatican Council (1962–65); the revisions of the Roman Missal based on principles discussed at the Councils were released, incidentally, four hundred years apart: in 1570 and in 1970. An accessible introduction to medieval liturgy and the Tridentine reforms is John Harper, *The Forms and Orders of Western Liturgy: From the Tenth to the Eighteenth Century* (Oxford: Clarendon Press, 1991). A more thorough but dated history of the Mass may be found in Joseph A. Jungmann, *The Mass of the Roman Rite: Its Origins and Development (Missarum Sollemnia): Volume 1*, trans. Francis A. Brunner (New York: Benziger Bros., 1951). For a brief summary of the post-Vatican II changes, see Pope Paul VI, Apostolic Constitution *Missale Romanum*; a full English translation may be found in International Commission on English in the Liturgy (hereafter ICEL), *Documents on the Liturgy, 1963–1979: Conciliar, Papal, and Curial Texts* (Collegeville, MN: Liturgical Press, 1982), 458–61; http://www.vatican.va/holy_father/paul_vi/apost_constitutions/documents/hf_p-vi_apc_19690403_missale-romanum_en.html.

5. Mark Evan Bonds, *A History of Music in Western Culture*, 3rd ed. (Upper Saddle River, NJ: Prentice Hall, 2009), 52; J. Peter Burkholder, Donald Jay Grout, and Claude Palisca, *A History of Western Music*, 8th ed. (New York: W.W. Norton, 2010), 67; and Craig Wright and Bryan Simms, *Music in Western Civilization*, Media Update (Boston: Schirmer Cengage Learning, 2010), 23.

The Mass Proper, the prescribed set of texts that rotate according to the liturgical calendar, stands at the center of this mystery. Recent changes notwithstanding, the Proper has presumably been an integral component of the Mass as a whole since its consolidation around the seventh century, yet in the materials of pedagogy it often remains a distant relative to the Ordinary, the prescribed texts that remain fixed from one Mass to the next. Teachers who work through the order of Mass with their students typically do so in the first section of the undergraduate survey. In chapters on early Christian music, most textbooks facilitate such a lesson with charts that illustrate the flow of the Mass from beginning to end and that clearly indicate the Ordinary, the Proper, and the other parts of the liturgy.⁶ Despite such a potentially rich and involved presentation early in the term, the Proper can quickly fade from view and may play little or no role in future work. For a variety of reasons explored in more detail below, students likely have better retention and understanding of the parts of the Ordinary, while the Proper and its meanings—musical and liturgical—might languish somewhere in the Dark Ages.⁷

Fostering continued interest in and engagement with the Proper can reverse these tendencies while enriching the survey from start to finish. First, occasionally shifting focus from the Ordinary to the Proper amplifies a student's ability to make personal connections to music of the Mass and, in turn, enhances the music's accessibility. Second, the ubiquity and the regularity of the Ordinary texts may entice the teacher to gloss over stylistic connections between eras that are more evident, or at least more apparent, in music written for the Proper. Since anthologized composers such as the Notre Dame polyphonists, Isaac, Palestrina, and Byrd compiled large collections of Propers (to say nothing of the anonymous composers of plainchant), devoting time to these texts in class and treating them creatively allows teachers to paint a portrait of early music that integrates several centuries of compositional practice, engenders a firmer grasp of the relationship between music and liturgy, and better prepares students for understanding later developments in sacred music composition.⁸ The purpose of this article is thus threefold:

6. See Bonds, *A History of Music in Western Culture*, 33; Burkholder, Grout, and Palisca, *A History of Western Music*, 51; Wright and Simms, *Music in Western Civilization*, 26–27; Douglass Seaton, *Ideas and Musical Styles in the Western Musical Tradition*, 4th ed. (New York: Oxford University Press, 2010), 28; and Richard Taruskin and Christopher H. Gibbs, *The Oxford History of Western Music: College Edition* (New York: Oxford University Press, 2013), 13.

7. Students are particularly adept, too, at devising colorful mnemonic devices for remembering the components of the Ordinary: “Kentucky Gentlemen Can’t Satisfy Anyone,” to cite one light-hearted example popular among my students.

8. Here I draw from Murray’s suggestion that we create “a history that encapsulates values of change and continuity, of borrowing and transformation,” and share his hope that

1. Building on ideas developed by previous writers on music history pedagogy, it argues that the Mass Proper can be a valuable tool for creating cohesion across stylistic periods and for enriching the study of early music, especially by bringing the music closer to the contemporary world.
2. It illustrates how the “Jigsaw Classroom,” a cooperative learning technique developed by the social psychologist Elliot Aronson, can be implemented concretely and effectively in the undergraduate music history survey.⁹
3. It offers suggestions, drawn from my own experiences teaching other survey sections, for propelling a detailed treatment of the Proper into later lessons and for utilizing Jigsaw in other teaching contexts.

Teaching the Mass Proper as a Musicological Enterprise

The Mass Ordinary holds a privileged status in the discipline of musicology and consequently holds a similarly elevated position in textbooks and anthologies, the traditional resources of music history pedagogy.¹⁰ This state of affairs can be explained in part by a simple historical fact: after William Byrd’s *Gradualia* (1605/07), there is no set of Proper cycles that exhibits contemporary stylistic trends to the extent of earlier collections. Why begin a story in the classroom, we might ask, only to leave it unfinished? The Ordinary, by contrast, occupied a central place in the output of each new generation of anthologized composers from Bach to Poulenc and beyond. The pedagogical appeal of the Ordinary is self-evident: the text of a Kyrie by Machaut is the same as that of a Kyrie by Mozart or by Stravinsky. Utilizing the Ordinary as a site of historical inquiry or of stylistic analysis, especially across semesters, allows students to “connect the dots” easily, as Mark Evan Bonds has called the process of creating meaningful ties between pieces, styles, and eras.¹¹ The self-contained nature of many Ordinary settings (“motto masses,” for example) further strengthens a student’s ability to connect music of the Mass to

“through this process, my students will enter this world and feel a link to a long and continuous tradition.” Murray, “Creating Anthologies,” 234.

9. Elliot Aronson (et al.), *The Jigsaw Classroom* (Beverly Hills, CA: Sage, 1978).

10. On its privileged status in scholarship, see Andrew Kirkman, *The Cultural Life of the Polyphonic Mass: Medieval Context to Modern Revival* (Cambridge: Cambridge University Press, 2010), 3–25.

11. Mark Evan Bonds, “Selecting Dots, Connecting Dots: The Score Anthology as History,” *Journal of Music History Pedagogy* 1, no. 2 (2011): 77–91; <http://www.ams-net.org/ojs/index.php/jmhp/article/view/18/30>.

later processes of instrumental music composition.¹² Yet the Ordinary's historical ubiquity and usefulness as a teaching tool raise two important questions: if it continued to play a significant role in each new generation's compositional output, why didn't the Proper continue likewise, and why did plainchant seem to disappear along with the Proper, as our textbook authors have suggested?

These two questions revolve around the historical nebulosity of the Mass Proper, a condition magnified by popular misconceptions concerning the positions of both the Proper and plainchant within current official documents of the Roman Catholic Church. If it seems to be irrelevant today, why bother making a fuss about it in the classroom? Like a handful of eyewitnesses giving testimony about the same crime, the undergraduate survey texts that comment on contemporary Catholicism reveal a multifaceted portrait of "what happened" to plainchant, but not without some lack of precision. The portrait they paint reveals that plainchant was a vital and essential component of Western musical life for over a millennium but lost vitality after the Second Vatican Council (except in certain worshipping communities), because it no longer held its traditional esteem in official documents.¹³ A visit to an ordinary Catholic parish in the United States, and even many cathedrals, would likely bear out this collective assertion.¹⁴ Yet careful scrutiny of Church documents reveals that it conflates two separate issues: plainchant as a sonic component of the Mass and the Proper as a textual component. Teasing the two apart requires a brief examination of their separate histories.

The authoritative documents of the Second Vatican Council affirm chant's elevated and preferred status in Roman Catholic worship. The Council's Constitution on Sacred Liturgy, *Sacrosanctum Concilium* (1963; hereafter SC), asserts that plainchant is "specially suited to the Roman liturgy, [and,] therefore, other things being equal, it should be given pride of place [*principem locum*] in liturgical services."¹⁵ The Council's pronouncement proved to be

12. Conceiving of the Ordinary as a unified musical whole has intellectual roots in the same nineteenth-century modes of thought that led to the aesthetic valuation of "organic" instrumental music. See Kirkman, *The Cultural Life of the Polyphonic Mass*, 10–16.

13. Although each part of the agglomerated statement is basically correct, its repetition in three separate texts borders on what Vincent Corrigan has called the "overgeneralization myth." See Corrigan, "The Myths of Music History," in Natvig, *Teaching Music History*, 181–89.

14. Beyond the monasteries and convents with long traditions of sung plainchant, the Priestly Fraternity of St. Peter is an example of a community of priests active in parishes in the United States and Europe who routinely include plainchant settings of the Proper in worship; other parishes do, too, but it is entirely at the discretion of the parish staff (La Trinité in Paris is a noteworthy example).

15. "Ecclesia cantum gregorianum agnoscit ut liturgiae romanae proprium: qui ideo in actionibus liturgicis, ceteris paribus, principem locum obtineat." *Sacrosanctum Concilium*, §116. For an English translation of the whole document, see ICEL, *Documents on the Liturgy*,

the culmination of sacred music reform efforts begun in the nineteenth century. Early reformers' primary concern was the restoration of a *cappella* singing, especially of plainchant, whose use in worship had been replaced in many regions by other musical and performance styles.¹⁶ Their efforts spurred the creation and dissemination of new chant books based on purportedly authentic printed and manuscript sources, and this work was affirmed by Pope Pius X in an official decree in 1903.¹⁷ In the decree's immediate aftermath, Pius X also initiated the creation of new official editions of Roman Catholic plainchant that were to be used worldwide, including the well-known *Graduale Romanum* based on manuscript studies performed at the Abbaye Saint-Pierre de Solesmes.¹⁸ The authors of SC continued to enact Pope Pius X's vision. Referring to the official 1908 *Graduale* (or "typical edition," as it is called), the document orders that "a more critical edition is to be prepared of those books already published since the restoration by St. Pius X."¹⁹ As opposed to cutting off the renewal of plainchant that was given official sanction in 1903, the authors of SC not only affirmed its position within the liturgy but actually intended to expand its presence. If the Council itself did not mark a decline in official interest in plainchant, then, but instead mandated its expansion, why might we believe that it disappeared?

4–27 (citation at 24); http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19631204_sacrosanctum-concilium_en.html.

16. For a summary of the various regional reform movements, see Robert F. Hayburn, *Papal Legislation on Sacred Music: 95 A.D. to 1977 A.D.* (Collegeville, MN: The Liturgical Press, 1979), 115–44.

17. He called Gregorian chant "the supreme model for sacred music" ("il supremo modello della musica sacra") and ordered that it be restored for use in public worship ("In particolare si procuri di restituire il canto gregoriano nell'uso del popolo"). Pope Pius X, *Tra le sollecitudini*, §3. A full translation may be found in Hayburn, *Papal Legislation on Sacred Music*, 223–31 (citation at 224).

18. Pius X's plan was also the source of a musicological controversy concerning editorial principles, and there are several useful accounts (of widely varying lengths and detail) of this controversy: Katherine Bergeron, *Decadent Enchantments: The Revival of Gregorian Chant at Solesmes* (Berkeley and Los Angeles: University of California Press, 1998), 143–61; Pierre Combe, *The Restoration of Gregorian Chant: Solesmes and the Vatican Edition*, trans. Theodore Marier and William Skinner (Washington, DC: Catholic University of America Press, 2003 [1969]); Katharine Ellis, *The Politics of Plainchant in fin-de-siècle France*, RMA Monograph No. 20 (Aldershot, Hants and Burlington, VT: Ashgate, forthcoming 2013); Hayburn, *Papal Legislation on Sacred Music*, 169–93 and 251–93; and David Hiley, *Western Plainchant: A Handbook* (Oxford: Clarendon Press, 1993), 622–29.

19. "Compleatur editio typica librorum cantus gregoriani; immo paretur editio magis critica librorum iam editorum post instaurationem sancti Pii X." The authors' pursuit of the widespread dissemination of chant was so great that they also expressed their desire for an edition "containing simpler melodies, for use in smaller churches" ("Expedit quoque ut paretur editio simpliciores modos continens, in usum minorum ecclesiarum."). SC, §117. ICEL, *Documents on the Liturgy*, 24.

In the years surrounding the Second Vatican Council, the Church appeared to loosen certain restrictions on both the structure of the Mass and the language to be used in worship. Vatican documents dating from the 1950s indicate that churches in specific localities had requested permission to insert vernacular hymnody into the parts of the Mass where the Proper texts typically fell. The documents specify, however, that a vernacular hymn should be sung during Mass only after the prescribed Latin texts—essentially, after the Propers.²⁰ *SC*, written just a few years later, outlined a plan for expanding the use of the vernacular at Mass and in turn raised practical issues concerning the singing of the Proper: if the vernacular were adopted exclusively, each of the hundreds of Proper texts would have to be translated and, consequently, adapted musically. *Musicam Sacram* (1967), a second official document whose intent was to clarify the musical implications of *SC*, offered practical but vague advice concerning how this adaptation might be achieved. It also revealed that the practice of substituting other songs for the Proper texts had been “widely confirmed by indult [*passim indultis confirmatus*],” further evidence that the practice of merely following a Latin Proper text with a vernacular hymn had transformed into wholesale substitution.²¹ None of these distinctions mattered, however, after Pope Paul VI promulgated a new *Missale Romanum* in 1969, which greatly expanded the rotating texts of the Mass, including the Proper and the biblical readings. The instructions in the new missal also allowed parishes to use, in the places traditionally reserved for the Proper, either the chant found in the *Graduale Romanum*, the same text found in the *Graduale Simplex* (a simpler chant book created in accordance with *SC*), or any other song approved by the local bishops that would be suited to the sacred action and appropriate for the day or the season.²² The freedom to

20. “Verum tamen, ubi saecularis vel immemorabilis consuetudo fert ut in sollemni Sacrificio Eucharistico, *post sacra verba liturgica latina cantata*, nonnulla popularia vulgaris sermonis cantica inerantur, locorum Ordinarii id fieri sinere poterunt” Pope Pius XII, *Musicae sacrae disciplina* (1955), §47. *Acta Apostolicae Sedis* 48 (1956): 16. A full translation may be found in Hayburn, *Papal Legislation on Sacred Music*, 345–56 (citation at 351); http://www.vatican.va/holy_father/pius_xii/encyclicals/documents/hf_p-xii_enc_25121955_musicae-sacrae_en.html.

21. Sacred Congregation of Rites, *Musicam Sacram*, §32. English full text in ICEL, *Documents on the Liturgy*, 1,293–1,306 (citation at 1,299); http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vatii_instr_19670305_musicam-sacram_en.html. This issue is complicated further by the distinction between sung “High” Masses, which usually included the Proper and spoken “Low” Masses, which usually included hymnody.

22. “Adhiberi potest sive antiphona cum suo psalmo in Graduali romano vel in Graduali simplici exstans, sive alius cantus, actioni sacrae, diei vel temporis indoli congruus, cuius textus a Conferentia Episcopali sit approbatus.” *Institutio Generalis Missalis Romani* (1969), §26. Although this paragraph refers to the Introit, the rules are precisely the same in the analogous places for the Offertory and the Communion, and similar for the Gradual and the

replace Proper texts with other songs led to a wave of new compositions to be used for that very purpose, and the current landscape of Roman Catholic music in the U.S. and elsewhere still reflects this change.²³

The Proper's relative absence in contemporary Roman Catholic worship, despite the Church's reassertion of plainchant as the preferred soundscape of the Mass, reflects larger historical patterns that have potential ramifications in the music history classroom, particularly broad surveys.²⁴ In the three centuries leading up to the Council of Trent, for example, the Ordinary and the Proper experienced two separate paths of stylistic development. The earliest polyphonic settings of any Mass text—Ordinary or Proper—typically have a chant as a structural foundation, but the Ordinary later became a site of rather bold stylistic innovation (e.g., through the use of a secular cantus firmus) while settings of the Proper, even those dating from as late as the sixteenth century, usually maintained much closer musical ties to plainchant melodies.²⁵ In part because of their nature as pieces for occasional and localized use, the performance practice of medieval and early Renaissance Propers was also widely variable, a pedagogical problem compounded by the relative lack of musical sources dating from the entire fourteenth century. Were the texts sung at all? And if so, to what music and how?²⁶ Teaching the Ordinary

Alleluia. For a full English translation, see ICEL, *Documents on the Liturgy*, 475–85 (citation at 475).

23. For an extensive bibliography of sources touching on these and related issues, see Peter Jeffery, "The New Chantbooks from Solesmes," *Notes*, Second Series 47, no. 4 (1991): 1039–63.

24. The standard account of the early development and the "Properization" of the Mass and its music is James McKinnon, *The Advent Project: The Later Seventh-Century Creation of the Roman Mass* (Berkeley and Los Angeles: University of California Press, 2000). There are also two much older accounts of the development of polyphonic Propers, both in German. Georg Eisenring, *Zur Geschichte des mehrstimmigen Proprium Missae bis um 1560* (Düsseldorf: L. Schwann, 1913) provides a detailed account of polyphonic Propers dating through the generation of Ludwig Senfl (1486–1542/3), including several musical examples used for stylistic analysis. Walther Lipphardt, *Die Geschichte des mehrstimmigen Proprium missae* (Heidelberg: F. H. Kerle, 1950) offers less stylistic analysis but catalogs many collections and individual settings of Proper texts dating from the fifteenth through the early twentieth centuries. For a more comprehensive overview of Roman Catholic church music history, see Karl Gustav Fellerer, ed., *Geschichte der katholischen Kirchenmusik*, 2 vols. (Kassel: Bärenreiter, 1972–76).

25. As Andrew Kirkman has recently argued, however, these bold stylistic innovations should not necessarily be interpreted as culturally or liturgically radical as well. See *The Cultural Life of the Early Polyphonic Mass*, 53–76.

26. For a concise history of polyphonic mass Proper settings from Notre Dame to Isaac, as well as an explanation of the attendant methodological challenges of studying this repertory, see Reinhard Strohm, "The Medieval Mass Proper, and the Arrival of Polyphonic Proper Settings in Central Europe," in *Heinrich Isaac and Polyphony for the Proper of the Mass in the Late Middle Ages and Renaissance*, ed. David J. Burn and Stefan Gasch (Turnhout: Brepols, 2011), 31–60. In the fifteenth century it was also relatively common in certain

through the sixteenth century presents fewer narrative challenges from a content-centered standpoint.

In an attempt to promote greater liturgical uniformity within the Roman Rite, certain Tridentine reforms were aimed specifically at the Proper, and thus at plainchant more generally. The calendar of saintly feasts was reduced, for example, and certain chants, including tropes and most Sequences, were excised from the Mass.²⁷ As in the case of the Second Vatican Council, several interrelated challenges mitigated the realization of the Tridentine vision of greater liturgical and musical unity: misunderstandings about what the Council actually decreed, the lack of a supposedly authoritative edition of liturgical chants, and the practice of adding or substituting other music in the place of the Propers. Although Pope Pius V's new *Missale Romanum* (1570) consolidated the liturgical calendar and therefore had residual musical effects, the Council itself actually said very little concerning music and left many musical questions open for local bishops to answer.²⁸ This freedom allowed for much greater musical variety from diocese to diocese. Theodore Karp has shown that the three centuries following the Council also witnessed an efflorescence of printed plainchant graduals, and although they present evidence of widespread interest in the use of chant, these books differed widely not only in source materials but also in editorial philosophies and principles.²⁹ Compounding the local variance in the "authentic" chant Propers created by these differing printed graduals, musicians in certain locales increasingly replaced sung Propers with music for organ or for other instruments, and likely sang hymns or non-liturgical motets as well—all to the chagrin of certain popes.³⁰ Musical settings of the Ordinary gradually expanded in size

regions to use motets to replace the Proper (and even the Ordinary), and this practice continued well into the seventeenth century, if not later. See Thomas L. Noblitt, "The Ambrosian *Motetti Missales* Repertory," *Musica disciplina* 22 (1968): 77–103 and Noel O'Regan, "The Church Triumphant: Music in the Liturgy," in *The Cambridge History of Seventeenth-Century Music*, ed. Tim Carter and John Bull (Cambridge: Cambridge University Press, 2005), 286.

27. In the centuries prior to the Council of Trent, the Sequence had become, in essence, another part of the Proper but only four were spared in the new missal. See Jungmann, *The Mass of the Roman Rite*, 1:126–41 and Manlio Sodi and Achille Maria Triacca, eds. *Missale Romanum: Editio Princeps (1570)* (Vatican City: Libreria Editrice Vaticana, 1998), xvi–xix.

28. Craig Monson, "The Council of Trent Revisited," *Journal of the American Musicological Society* 55, no. 1 (2002): 1–37.

29. Theodore Karp, *An Introduction to the Post-Tridentine Mass Proper: Part 1* (Middleton, WI: American Institute of Musicology, 2005), 1–10.

30. Accounts of these varied practices are diffuse. See, for example, Stephen Bonta, "The Uses of the *Sonata da Chiesa*," *Journal of the American Musicological Society* 22, no. 1 (1969): 54–84; Edward Higginbottom, "Organ Music and the Liturgy," in *The Cambridge Companion to the Organ*, ed. Nicholas Thistlethwaite and Geoffrey Webber (Cambridge: Cambridge University Press, 1998), 130–47.; Anthony Ruff, *Sacred Music and Liturgical Reform:*

during this same period and reached a dramatic apex in the larger orchestral masses of the late eighteenth and nineteenth centuries, some of which were probably never intended to be used as liturgical music. And so began the nineteenth-century church music reformers' efforts to restore *a cappella* singing in Roman Rite churches.

The intertwined histories of plainchant and the Mass Proper allow pedagogy to engage in intriguing dialogues with the discipline of musicology. The centuries-old disjuncture between local liturgical variance and the desire for uniformity within the Roman Rite, for example, seems to mirror the blurry boundaries between ethnomusicology and historical musicology. Do we approach the repertory as a fixed entity or as a shifting local practice?³¹ From a similarly broad disciplinary perspective, we might notice that the church music reform movements that eventually culminated in the Second Vatican Council, and that arguably continue today, emerged at the nexus of other critical factors that have received increasing musicological attention over the past two decades. In particular, these include the changing aesthetic status of instrumental music and the development of a historical consciousness that led to the canonization of particular composers, genres, and styles. Using the Proper for confronting these challenging topics in the classroom is not necessarily an obvious choice, and doing so also raises fundamental questions about the goals of music history instruction. How do we convey the purpose and the value of musicology to our students?³² To what extent do we teach music as a living practice, as opposed to a collection of works? And how do we teach something that is simultaneously there and not there?³³

These questions resonate with the more practical problem areas for teaching early music that Macey and Murray have identified and that this

Treasures and Transformations (Chicago: Hillenbrand Books, 2007), 567–92; and Alexander Silbiger, “Fantasy and Craft: The Solo Instrumentalist,” in *Cambridge History of Seventeenth-Century Music*, ed. Tim Carter and John Butt (Cambridge: Cambridge University Press, 2005), 439–42. Pope Innocent XII frowned on these and similar practices and ordered in 1692 that “His Holiness does not in any way permit or allow any Motet or song to be sung during Mass unless it pertains to the Mass itself, such as e.g., the Introit, the Gradual, and the Offertory, which belong to each;” this teaching was later affirmed by Pope Benedict XIV in 1749. See Hayburn, *Papal Legislation on Sacred Music*, 80 and 100.

31. On the interface of the disciplines in chant scholarship, see Peter Jeffery, *Re-Envisioning Past Musical Cultures: Ethnomusicology in the Study of Gregorian Chant* (Chicago: University of Chicago Press, 1992), 51–86.

32. The scholarly investigation of plainchant potentially has practical value for the worshipping communities that wish to adopt it, for example.

33. Michael Beckerman has written a reflective essay on how we might teach what we do not—or perhaps cannot—know, and he suggests that teaching with open-ended questions is a valuable exercise. See Beckerman, “How Can You Teach What You Don’t Know? . . . and Other Tales from Music History Pedagogy,” in *Vitalizing Music History*, ed. James R. Briscoe (Hillsdale, NY: Pendragon Press, 2010), 3–18.

article addresses more concretely: humanizing the repertory and capturing continuities within it. The discipline's collective emphasis on the Ordinary, partly rooted in modes of thought that privilege organicism, may have the unintended consequence of diminishing a student's ability to connect personally to music of the Mass by shifting focus away from the very concept that humanizes the service—liturgical function. The five parts of the Ordinary are liturgical ends in themselves, their exclusive purpose being the expression of praise (Gloria, Sanctus), petition (Kyrie, Agnus Dei), and belief (Credo).³⁴ For students who have not experienced the Mass or similar worship services, and even for many who have, musical settings of these texts are possibly meaningless abstractions. The Propers, by contrast, accompany movement (Introit, Offertory, Communion), provide a source of meditation (Gradual), or serve to heighten the drama leading to the recitation of the Gospel (Alleluia), all types of musical experience that arise in common musical arenas outside the Mass.³⁵ A simple in-class explanation or an enactment of this human dimension of the Mass—concrete individuals doing actual things while the music is sung—can help students, especially those who have little or no experience with liturgical worship, imagine the setting and unfolding action, much as they would any other dramatic narrative.³⁶

While exploring the meaning of the Proper is an essential first step, reinforcing it through specifically musical study can enrich the student's overall experience with early sacred music. Despite the practical factors weighing in favor of the Ordinary enumerated above, studying the Proper in greater depth allows students to connect many of the same dots created by its partner, especially in the first section of the history survey, without losing sight of the lived experience of liturgy. The widespread and varied practice of musical borrowing is one of the most important links across early music repertories that current textbooks and anthologies help students make. In his article on connecting dots with anthologies, Bonds notes that anthologies typically illustrate early musical borrowing by following a specific plainchant through its transformation into organum, a snippet of which becomes the basis of a clausula, which is finally retexted as a motet. For the Renaissance, he adds, anthologies often include a "parody" mass built on a pre-existing motet.³⁷ An exclusive focus on the Ordinary, however, may inadvertently lead students to believe

34. And this perhaps helps further explain our tendency to treat the cyclic mass as a musical thing-in-itself.

35. See William Mahrt, "Musical Shape of the Liturgy," *Sacred Music* 102, no. 3 (1975): 8–9. In the medieval Mass, the Sequence served a wide variety of functions.

36. The eighth edition of *A History of Western Music* also provides a vivid description of the Mass's unfolding on pages 50–51, and this approach supports Macey's contention that "a survey of the music of the Middle Ages and Renaissance will maintain a clear focus if one keeps the social context for music making to the fore." Macey, "Providing Context," 4.

37. Bonds, "Selecting Dots, Connecting Dots," 78–79.

that the important types of borrowing utilized in masses—cantus firmus, parody, and paraphrase—were the exclusive domain of the Ordinary, which is not at all the case.³⁸

The traditionally anthologized exemplar of chant paraphrase in a mass, Josquin's *Missa Pange Lingua*, in which the eponymous plainchant hymn forms the basis of a virtuosic polyphonic setting of the Ordinary, illustrates well the pedagogical problems sketched above. Successfully “connecting the dots” with this piece is first dependent on the student learning the original hymn, whose use within the Church calendar typically falls outside standard presentations of Mass chants. There is also no direct liturgical or textual connection between the hymn and any one section of the Ordinary; in the student's mind, Josquin's choice of one chant over another may seem arbitrary.³⁹ The *Missa Pange Lingua* is undoubtedly a magnificent work worthy of classroom exploration, but its complex twists and turns require an especially diligent treatment by the instructor that may obscure the more straightforward path of stylistic development taken by Propers.⁴⁰

The *Choralis Constantinus*, Henricus Isaac's large collection of polyphonic Proper cycles and his magnum opus, affords teachers the opportunity to solve this problem by allowing students to engage with pieces of music that are based on the same text as the original chant, as well as on the chant itself, all without sacrificing the ability to address central stylistic traits of Renaissance sacred polyphony. Moreover, the liturgical function of these pieces is precisely the same as the chants upon which they are based. Although the sheer size of the *Choralis* may seem daunting, it has distinct pedagogical advantages over a standard mass: the different settings display greater compositional variety

38. Wright and Simms break this trend by developing the concept of paraphrase in a discussion of a motet based on the *Salve, Regina* chant. See *Music in Western Civilization*, 143–44.

39. The same could be said of an Ordinary based on a secular song, but the novelty and seemingly risqué quality of this type of borrowing are, in my experience, enough to keep students engaged with these works. Antonio Zacara da Teramo's settings of the Credo with cantus firmi taken from extremely irreverent texts make for especially lively discussions. See, for example, *Credo “Deus Deorum”* in Kurt von Fischer and F. Alberto Gallo, eds., *Italian Sacred and Ceremonial Music, Polyphonic Music of the Fourteenth Century 13* (Monaco: Éditions l'Oiseau-Lyre, 1987), 109–17. The original ballata, “Deus deorum, Pluto” may be found in W. Thomas Marrocco, ed., *Italian Secular Music, Polyphonic Music of the Fourteenth Century 10* (Monaco: Éditions l'Oiseau-Lyre, 1977), 106–7. Recordings of the Credo and the ballata are available for purchase over the internet, though only the Credo is available more widely in university libraries: Theater of Voices and Paul Hiller, *Fragments*, Harmonia Mundi France HMU 907276.

40. Although Taruskin and Gibbs convincingly label Josquin's *Ave Maria . . . virgo serena* an “exemplary work” with respect to its polyphonic paraphrasing of plainchant, its amalgamated textual and musical sources also require potentially time-consuming retrospective examinations. See Taruskin and Gibbs, *Oxford History of Western Music*, 173–76.

than the one or two movements of an Ordinary typically included in an anthology; many of the pieces are relatively short; and the musical connections to plainchant are its *raison d'être*. As I explain below, connecting the *Choralis* to the pre-existing plainchant repertory also gives teachers ample space for “decoding the discipline” of musicology with their students, an activity that J. Peter Burkholder has recently argued should be one central aim of music history instruction.⁴¹ A group-oriented learning strategy called the “Jigsaw Classroom” allows teachers to achieve this goal with verve.

Decoding the Discipline in the Jigsaw Classroom

Police procedural dramas like the *Law & Order* and *CSI* franchises have captivated viewers for years with complex narrative twists and grotesque criminal minds—the stuff of any good crime fiction—but they also provide us with models of teamwork that can be transferred into the classroom with great effect. Unlike legal dramas that rely on charismatic characters with seemingly superhuman abilities to sway a jury (like Perry Mason or Ben Matlock), procedural dramas use ensemble casts whose members have distinct areas of expertise and work together to solve a common problem, the crime. Detectives interview witnesses and suspects. The coroner examines the dead body and makes conjectures about the cause of death. Drawing on even more refined skill sets, forensic scientists analyze physical evidence like blood, bullets, and fingerprints. Finally, the lawyers piece everything together into a coherent narrative for judge and jury. It is possible that this model of teamwork also helps explain why viewers keep tuning in week after week. When one piece of the puzzle falls out of place—usually an overzealous detective who breaks the rules—we are left with a sense of loss, whereas the episodes where justice prevails give us cathartic relief. With creativity, teachers can construct a similar framework in the classroom in which students who have asymmetrical knowledge, experiences, or skills work together in order to reach specific learning objectives—to solve their crime.

Known in general pedagogy literature as the “Jigsaw Classroom,” this particular strategic framework helps students break expansive and complex tasks or topics into smaller component parts that they then join together after developing a certain degree of expertise on their unique subtopics. In essence, the students construct a jigsaw puzzle of learning materials. The social psychologist Elliot Aronson developed the Jigsaw Classroom in the 1970s as a means of reducing competition and of fostering cooperation in grade schools. It has since become a core strategy in the literature on applications of

41. J. Peter Burkholder, “Decoding the Discipline of Music History for Our Students,” *Journal of Music History Pedagogy* 1, no. 2 (2011): 93–111; <http://www.ams-net.org/ojs/index.php/jmhp/article/view/22/46>.

cooperative learning theories in higher education.⁴² Building on Aronson's model, with slight modifications to reflect the maturity of college students, teachers can construct a successful Jigsaw project in the following way:⁴³

1. Divide a lesson, or umbrella topic, into segments or subtopics. For the umbrella topic of nineteenth-century musical nationalism, for example, natural subtopics might comprise a handful of specific nations.
2. Divide the class into "jigsaw groups," the constituency of which will match the number of segments created in step one. Following the nationalism example, if there are five nations under investigation, the jigsaw groups should contain five students each. In cases where the numerical breakdown is asymmetrical, the teacher should improvise solutions that will distribute the workload relatively evenly.
3. Assign each student a segment. The student then "studies" by preparing notes or performing other relevant activities on his or her own.
4. Allow students assigned to the same segment to form "expert groups" that help each other ensure no individual has overlooked an important idea or fact. This step allows a student whose work happened to focus on nationalism in German orchestral music to share notes with someone who, coincidentally, examined opera instead.
5. Once the expert groups have compared notes thoroughly, reconstitute the jigsaw groups and ask individuals to report their findings to one another. Each expert thus teaches pertinent facts or concepts to the others in the group.
6. Serve as a floating moderator to ensure that each group is functioning properly and that each student is contributing fairly.⁴⁴

42. See, for example, Elizabeth F. Barkley, K. Patricia Cross, and Claire Howell Major, *Collaborative Learning Techniques: A Handbook for College Faculty* (San Francisco: Jossey-Bass, 2005), 156–62; Robin Fogarty and James Ballanca, "The New School 'Lecture': Cooperative Interactions That Engage Student Thinking," in *Enhancing Thinking Through Cooperative Learning*, ed. Neil Davidson and Toni Worsham (New York: Teachers College Press, 1992), 84–100; David W. Johnson, Roger T. Johnson, and Karl A. Smith, *Cooperative Learning: Increasing College Faculty Instructional Productivity*, ASHE-ERIC Higher Education Report No. 4 (Washington, DC: The George Washington University School of Education and Human Development, 1991), 57–70; Larry K. Michaelson and Arletta Bauman Knight, "Creating Effective Assignments: A Key Component of Team-Based Learning," in *Team-Based Learning: A Transformative Use of Small Groups*, ed. Larry K. Michaelson, Arletta Bauman Knight, and L. Dee Fink (Westport, CT: Praeger, 2002), 53–75; and Barbara J. Mills and Philip G. Cottell, Jr., *Cooperative Learning for Higher Education Faculty* (Phoenix: Oryx Press, 1998), 126–32.

43. This is my own adaptation and distillation of the process described in Aronson, *The Jigsaw Classroom*.

44. Ideally, students will also be given the opportunity to answer questions posed by the other students in the jigsaw groups, a valuable metacognitive process.

7. Finally, devise an assessment tool that will measure the intended learning outcomes—a quiz, a written assignment, or an oral presentation in front of the entire class, to give just a few examples.⁴⁵

This model is valuable for several reasons: individual and group accountability are intertwined; students take proactive ownership of their learning as they become experts on their particular topics; each student contributes equally to the whole; common barriers to class participation (or potential sources of teacher favoritism) such as race, gender, or personality type are drastically reduced; and, finally, a large amount of material can be assimilated very efficiently by the entire class. Jigsaw is also appealing in a variety of contexts because, when it is skillfully implemented, it creates an active, learner-centered environment that places the lesson firmly in students' hands and promotes critical thinking.

As with any model, jigsaw is flexible and invites adaptation. In small to moderately-sized courses at the collegiate level (e.g., five to forty students), the teacher may conceive of the entire class as the initial “jigsaw group” and create “expert groups” that range from one to five individuals, depending on the number of subtopics that need to be addressed. In larger classes, even those with stadium seating, it may be more useful to create a multi-tiered group environment by dividing the class into “expert quadrants” that explore a particular section of a long piece of music, discuss in twos or threes within the quadrant, and later report to the whole class. Following the Aronson model more closely can also be effective in very large classes as long as the students are held accountable for their work. This strategy might come as a surprise to students at larger universities who are accustomed to an exclusive lecture model in enormous classes, but skillful moderation of the discussion can ensure that the vast majority of students are actively engaged with the material.⁴⁶

The jigsaw approach seems especially suited to a traditionally content-heavy course such as a survey. In this particular case, it allows the overwhelming size of the Propers repertory to become more manageable, and the expansive number of potential musical examples facilitated by jigsaw simultaneously inverts and complements the anthology concept, which relies on a single representative work to stand for the whole. When applying jigsaw to the Propers, as I explain below, students become “experts” on a single Proper text as it changes musical shape over time. In the process of developing this

45. Appendix B provides a sample of an assessment tool appropriate for this exercise.

46. For a series of rebuttals to common student complaints directed toward jigsaw and other group activities, see Junko Shimazoe and Howard Aldrich, “Group Work Can Be Gratifying: Understanding and Overcoming Resistance to Cooperative Learning,” *College Teaching* 58, no. 2 (2010): 52–57.

expertise, reporting findings, and then collecting meaningful data, students also become more fully equipped to make generalizations about musical style and compositional practice than if they were relying on a single piece (or perhaps disparately related pieces) in an anthology.

This final stage of learning correlates strongly to one of the items Burkholder has identified as one major obstacle, or “bottleneck,” when decoding the discipline of musicology in undergraduate music history surveys: the difficulty of “figuring out what are the significant features of a musical style or genre that distinguish it from others”—in other words, stylistic analysis and comparison.⁴⁷ Explaining one method for overcoming this difficulty, Burkholder describes an exercise in which his students form small groups that examine similarities and differences between the liturgical chants found in the *Norton Anthology of Western Music*. By determining which features are present or absent from the chants, students then make generalizations about the specific characteristics of each chant type, or genre (Introit, Gradual, etc.), and finally apply that knowledge to unknown pieces.⁴⁸ The Jigsaw application described below mirrors this process of shared discovery but encourages students to use inductive, as opposed to deductive, reasoning skills. The students begin their work with unknown pieces after being equipped with tools for analyzing and understanding them. Once they report their analytical findings to each other and broader trends have emerged in discussion, the students are then ready to make relatively definitive statements about general stylistic traits.

Framing the Puzzle: Plainchant Propers

Plainchant is usually the first large and stylistically coherent repertory presented in music history surveys, and Jigsaw allows students to grasp pertinent stylistic traits quickly. Despite the repertory’s size, choosing pieces for classroom use does not have to be difficult. When first developing my approach to the Propers, I worked in reverse. Knowing that I would later teach Isaac’s *Choralis Constantinus*, I placed modern editions of the *Choralis* next to the most recent official *Graduale Romanum* (1974) and selected pieces that seemed to offer sufficient stylistic variety without being overwhelming.⁴⁹

47. Burkholder, “Decoding the Disciplines,” 97.

48. The process described by Burkholder also strongly mirrors Gerald Nosich’s process of “thinking things through” using the “fundamental and powerful concepts” of the discipline—in this case, musical style. See Burkholder, “Decoding the Disciplines,” 99–105 and Nosich, *Learning to Think Things Through*, 45–84.

49. There are numerous problems with the currently available modern transcriptions of the *Choralis* with respect to their print and manuscript sources—especially text underlay—but these need not destroy the value of this activity. See David J. Burn, “The Mass-Propers Cycles of Henricus Isaac: Genesis, Transmission, and Authenticity” (PhD diss., University of

I eventually settled on a collection of Introits, Communions, and a single additional Alleluia.⁵⁰ These particular pieces varied in length, mode, liturgical season, subject matter, and, in the case of the polyphonic settings, texture as well as chant paraphrase techniques. At the same time, none of the pieces seemed so out of place that I felt the students would mistakenly believe its unusual or special characteristics were in fact normative, and most of them have great potential to be studied in other contexts. My final selections are reproduced in Appendix A.⁵¹

A student's ownership of a particular Proper text across multiple lessons stands at the heart of my approach to Jigsaw in this particular context. At some point very early in the term, I create slips of paper containing only the text incipit of a Proper (e.g., *Dominus dabit*) and place these in a basket. Students then draw a slip that becomes their personal Proper for the duration of the project. Finally, I facilitate the formation of "expert groups" comprising students who selected the same text so that no one has to face the project alone.⁵² Armed with only their text incipits, the students' initial task is to discover a handful of basic facts about their pieces: its full Latin text, an English translation, its biblical origin, and the Sunday or Solemnity for which it is the prescribed text in the current, or post-1970, liturgical calendar.⁵³ Most students will discover quickly that all of the requested information is in a publication called the *Gregorian Missal* (1991), a book produced by the Solesmes Abbey and available for free on a website hosted by the Church Music Association of America.⁵⁴

Oxford, 2002), 21–23 and Theodore Karp, "Some Chant Models for Isaac's *Choralis Constantinus*," in *Beyond the Moon: Festschrift Lutter Dittmer*, ed. Bryan Gillingham and Paul Merkley (Ottawa: Institute of Medieval Music, 1990), 345–49.

50. In order to distribute the workload evenly among those working on Introits and Communions, I did not require the students to analyze the psalm verse portions of the Introits, but this is certainly a possibility. The other Proper types included in the *Choralis* are possibilities as well but I felt they were generally too long for the limited time we would be able to spend on this exercise.

51. Recordings of most of the chants can be found on YouTube or on a variety of commercial releases, but there is no single recording that contains a majority of them. Thank you to Laurie McManus and David Burn for making supplementary suggestions based on pieces they teach.

52. At my campus, which has a relatively large commuter population, I give students the option of creating formal group meetings to discuss their chants. In a different context, I might encourage these meetings more strongly.

53. Focusing on the contemporary liturgical calendar at this early point reminds students that this basic structure is still a part of contemporary Roman Catholic life—a clear connection to the distant past; it will return later.

54. See <http://musicasacra.com/communio/>. This step could be done quite quickly in a classroom at an institution that requires students to own laptop computers.

This simple research activity serves two important functions. First, it concretizes the fact that Propers are devoted to specific liturgical days: someone will have a Christmas chant, someone else will have Easter, and a third person will have Epiphany. As the details are shared in groups or in front of the whole class, it will also be possible for the instructor (or perhaps the students themselves) to explain that some of the texts seem to be directly related to the Sunday or the Solemnity itself (e.g., *Vidimus stellam* for Epiphany), further reinforcing the idea that these texts have meanings extending beyond the mere act of worship.⁵⁵ Second, it presents the instructor with ample opportunity to delve into some of the specifically musicological issues described above. What is the *Gregorian Missal* and why was it published in 1991? Are the neumes really from the Middle Ages, and why do they look exactly like the neumes in our anthology, or not? What is the difference between a “source” and an “edition”?

This last question raises a further practical concern for the instructor: which physical items to use for introducing and analyzing the chants. The standard survey anthologies that include plainchant draw from the Solesmes editions, whose online accessibility provides a convenient solution. Nevertheless, recent Solesmes publications such as the *Graduale Romanum* and the English *Gregorian Missal* reproduce copies of the chant melodies from the 1908 Vatican edition—the very text that the writers of *Sacrosanctum Concilium* ordered to be updated with a “more critical edition.” Attempting to follow this mandate, a group of European scholars has been publishing “restituted” melodies from the *Graduale Romanum* in the journal *Beiträge zur Gregorianik* since 1996, and their completed work now appears in a new collection called the *Graduale Novum*.⁵⁶ Although the melodic differences between the two graduals may or may not affect classroom instruction, the *Graduale Novum* offers a distinct pedagogical advantage through its inclusion of older staffless, or adiaستمatic, neumes printed in the spaces above and below the conventional four-line staff notation. The two sets of neumes may give students a sense of information overload, but their pairing on a single

55. Since most of the information gained through the students’ preliminary research will return later in the semester, the instructor may find it valuable to ask the students to generate a Wiki-like database of their findings so that valuable class time can be used to process the information beyond merely recounting it. This database can continue to grow and expand through the later phases of the Jigsaw activity described in more detail below.

56. *Graduale Novum Tomus I: De Dominicis et Festis* (Regensburg: ConBrio Verlagsgesellschaft, 2011). Anton Stingl, Jr., a German musician affiliated with the group of scholars who edited the *Graduale Novum*, hosts a website that contains downloadable versions of the updated melodies. These files contain only one of the additional adiaستمatic neume groups, but they would certainly be a convenient substitute for instructors and students who do not have ready access to the *Graduale Novum*. See <http://www.gregor-und-taube.de/html/materialien.htm>.

sheet facilitates a classroom discussion about the connections between staffless and staffed notation.⁵⁷

The same class period in which students draw their slips of paper is a good time to begin introducing stylistic and analytical concepts relevant to plainchant such as mode, range, final, reciting tone, and text declamation (i.e., syllabic vs. melismatic)—and how these relate to liturgical function. I also demonstrate to students how they can transcribe chants from the contemporary editions using a chart created by David Hiley as a Rosetta Stone.⁵⁸ Likely in a separate session, all of these analytical concepts can be reinforced using a handful of chants either found in an anthology or gathered independently. While learning these techniques, it is essential that students mirror the process they will be using to analyze their assigned chants later; as musicians, they know that perfect practice makes perfect. Once students have familiarized themselves with the basic facts about their chants and have a well-stocked analysis toolkit, they also need to know the specific items for which they are going to be held responsible in the Jigsaw exercise. After presenting them with fresh copies of their chants (with the Roman numeral mode indication removed from the score), I assign the following tasks to be completed outside of class:

1. Using Hiley's chart as a guide, transcribe your chant into modern stemless notation, the standard given in textbooks. Sing it or play through it on your own instrument.⁵⁹
2. Determine the mode by triangulating the final, the range, and (where possible) the reciting tone.
3. Compare the qualities of your chant, such as text declamation, to what we have learned about your chant type.
4. Write a few sentences that comment on features you find particularly noteworthy. Speculate about why you think those features are present.

These tasks move progressively from the purely analytical to the interpretive or critical identification of characteristics, and, with sustained effort, completing them does not take long.

57. A third book produced by Solesmes, the *Graduale Triplex* (1979), also includes the adiastematic neumes but, unlike in the *Graduale Novum*, the melodies themselves are reproduced from the 1908 Vatican edition, which was created using nineteenth-century interpretations of the adiastematic manuscripts.

58. David Hiley, *Western Plainchant: A Handbook* (New York: Oxford University Press, 1993), 342–43.

59. Although the exercise is perhaps anachronistic in its method, transcription allows students to make connections to their own instruments and experiences as musicians, which are easy to neglect early in the survey.

The secondary literature discussing differences between cooperative and collaborative learning environments suggests that the incorporation of freely-chosen interpretive elements into an exercise potentially leads to different social outcomes in the group experience from the more analytical tasks. In cooperative learning, group work leads to achieving a relatively defined goal, and some theorists have considered it useful primarily for helping students acquire “foundational” knowledge. Collaborative learning, by contrast, treats the group as a site of knowledge generation.⁶⁰ Without necessarily valuing one type of knowledge or framework over the other, this project utilizes elements of both by incorporating both types of tasks into its individual and group components. Discussion of the “objective” points allows students to develop foundational knowledge about style, whereas exploration of the “interpretive” points allows the group to share unique understandings of a particular piece within that style.

Within their discussions, the sum total of the students’ findings presents a delightfully kaleidoscopic portrait of compositional techniques among their pieces, and by extension much of the plainchant repertory more generally. On report day, the class period in which the jigsaw puzzle comes together, the “decoding” of musicological thought about plainchant unfolds very rapidly. Because they were able to consult with their fellow “experts” and discuss pitfalls, students should generally come prepared with a near-perfect transcription and a thorough accounting of the process for finding the mode—the more objective analytical points. When collating their findings in discussion, the students should also be able to reason that the modal system seems to fit the repertory as a whole, at least as well as Roman numeral analysis fits the pieces they have studied in their theory courses.

The discussion may gain intensity when students report on items 3 and 4, the more interpretive or critical components. Commenting on the text declamation of their pieces, for example, most students will accurately identify whether their pieces are predominantly syllabic, melismatic, or neumatic, and they tend to remark that the declamation fits into our expectations for the general type—melismatic for the Alleluia and neumatic or syllabic for the Introits and the Communions.⁶¹ As these facts about text declamation come to light in rapid succession, the students might also begin to recognize other patterns across the spectrum. For example, the word “alleluia” appears in

60. On the differences and similarities between the two models (or whether they exist at all), see, in this order, Kenneth A. Bruffee, “Sharing Our Toys: Cooperative Learning versus Collaborative Learning,” *Change* 27, no. 1 (1995): 12–18; Karl A. Smith, “Cooperative vs. Collaborative Learning Redux,” *Change* 27, no. 3 (1995): 6; and Roberta S. Matthews, James L. Cooper, Neil Davidson, and Peter Hawkes, “Building Bridges Between Cooperative and Collaborative Learning,” *Change* 27, no. 4 (1995): 35–40.

61. *Dominus dabit* is a notable exception: a highly melismatic but short Communion chant.

several of the Introits, and in each case is more melismatic than the surrounding text. This anomaly leads students to recall that standalone Alleluias are also relatively melismatic. Introits and Alleluias are typically quite different but they do have “dots” to be connected.

The other individually-determined noteworthy features that students tend to find are also directly related to the more objective analytical work they completed in earlier steps, a result that reinforces the value of this work. Building on their understanding of text declamation, several students may note unique instances of a melisma or a rudimentary example of text painting on what seem to be significant words: “Dominus” (“Lord”), “Deo” (“God”), “Alleluia,” or words that are otherwise central to the meaning of the entire passage. Following their exploration of modes, others will find that the mode is unclear, changes, or does not seem to fit the character of the liturgical season (given the generic though false assumption that “happy” seasons should have a “brighter” mode). Lastly, some students may remark on structural features of the chant such as motivic or sectional repetitions, or the interesting placement of melodic climaxes. In short, the Jigsaw exercise illustrates that even within a relatively uniform stylistic milieu and even when individual composers are not known, compositional choice nevertheless played an important role in the act of creation. Upon the project’s completion, students are fully immersed in the musical, textual, and, to a lesser extent, the spiritual language of plainchant. Even more importantly, they have proof of its vitality in the Middle Ages.⁶²

Filling in the Puzzle with Polyphony

Although the chant project described above utilizes Jigsaw to great effect, it serves merely to frame the puzzle of the Mass Proper that can be constructed in the survey classroom. Analysis of polyphonic Propers from the Renaissance allows students to see the puzzle in its full array. As I suggested earlier, Henricus Isaac’s megalithic *Choralis Constantinus* provides an abundance of resources for “connecting the dots” between plainchant and early Renaissance sacred compositional practice. Isaac’s contemporaries considered him a “fluent composer, a skilled melodist who excelled at handling the chant and understood its power.”⁶³ Given that he was known for his ability to integrate

62. Any number of short writing assignments might serve as useful assessment tools at the end of the discussions: commentary on stylistic variety or the role of compositional choice in the plainchant repertory, or perhaps the changing soundscape of the Mass from beginning to end. An even more creative assignment might include engagement with and evaluation of the contents of commercially available chant recordings such as *Chant* (Angel Records, 1994).

63. Jessie Ann Owens, *Composers at Work: The Craft of Musical Composition, 1450–1600* (New York: Oxford University Press, 1998), 259.

plainchant so seamlessly into a metrical polyphonic texture, it is perhaps all the more surprising that his chant-based works do not appear in any of the major undergraduate-oriented anthologies accompanying survey textbooks. This absence can be explained in part by a general neglect of his work in musicological scholarship. Contemporary research on Josquin, a staple of anthologies, far outpaces that on Isaac, but this situation is changing as paradigms for understanding music and musicianship in the late fifteenth and early sixteenth centuries have recently begun to shift.⁶⁴ Neglect of Isaac's sacred music in the classroom is also the result of a general tendency among anthology compilers to choose easily memorable works with at least one quirky hook.⁶⁵

The polyphonic component of the "Propers project" contains two parts. Mirroring the hunt-and-find quality of the earlier assignment, the first part involves acquiring basic facts about the pieces. In case they missed the library earlier, I ask students to find the volume and page numbers, as well as the call number, of the *Denkmäler der Tonkunst in Österreich* volume where their pieces may be located and openly tell them that the tenth volume (Volume I of the *Choralis*) is housed on the International Music Score Library Project website (www.imslp.org).⁶⁶ I also request that they determine the Sunday or Solemnity for which their Proper was the prescribed text, as indicated in the modern editions of the *Choralis*. In most cases it matches their earlier discoveries—an important object lesson in the structural continuity of much of the liturgical calendar.⁶⁷

64. Leading to an Isaac Renaissance, if you will, including conferences at the Catholic University of Louvain (2009) and Indiana University (2010), as well as an entire issue of the *Journal of Musicology* (Winter 2011) devoted to his life and works. For a brief overview of recent scholarship on Isaac, see David Burn, Blake Wilson, and Giovanni Zanollo, "Absorbing Heinrich Isaac," *Journal of Musicology* 28, no. 1 (2011): 1–8. The Louvain conference proceedings are published in David Burn and Stefan Gasch, eds., *Heinrich Isaac and Polyphony for the Proper of the Mass in the Late Middle Ages and Early Renaissance* (Turnhout, Belgium: Brepols Publishers, 2011), and a report on the Bloomington conference may be found in Ruth I. DeFord, "Heinrich Isaac and His World," *Early Music* 38, no. 3 (2010): 481–82.

65. In Isaac's case, the homophonic arrangement of *Innsbruck, ich muss dich lassen* is a staple of anthologies because it anticipates four-part chorale harmonizations in the Lutheran tradition. This fact alone reveals that it is unusual, not a stylistic exemplar, and the fame of this song is also bound up with problematic nationalist reception histories. See Burn, "The Mass-Propers Cycles of Henricus Isaac," 15–18.

66. As with the free online availability of the *Gregorian Missal*, the open accessibility of one volume of the *Choralis* puts this project squarely within the realm of possibility for instructors at institutions with smaller music collections. Using Louise Cuyler's transcription of the third volume of the *Choralis* is also a possibility, but many of the Propers in that collection are moveable common Propers capable of being used for any number of celebrations.

67. The only significant difference among the Propers listed in Appendix A can be found in the use of *Hoc corpus*. One of the most substantial reconfigurations within the 1970 *Missale Romanum* included the days just before Easter, and *Hoc corpus* was shifted from the Fifth Sunday of Lent to the Thursday preceding Easter. Before the Second Vatican Council, certain

Once the students have satisfactorily collected and presented their initial findings, they are given a clean copy of Isaac's polyphonic setting, along with fresh copies of their chants, and are thus ready to begin their analytical work. Since it can be difficult to lay aside a day in the middle of the semester for introducing an entirely new set of analytical strategies, I take care to introduce important related concepts such as textural changes and effects (e.g., echo), cadential formulae, *musica ficta*, and the *cantus firmus* technique in the lessons just preceding the announcement of the project. The second set of analytical tasks, drawn largely from these lessons, is listed below:

1. **Cantus Firmus/Paraphrase:** Using a pink highlighter, mark your chant's path throughout the piece. Be sure to examine all four voices, and to keep a watchful eye for elaboration.
2. **Texture:** Mark the beginning of each point of imitation in red, connect the entries with a dotted line, and label sets of these passages with the letters "A," "B," etc. If you see "echoes," indicate these as well.
3. **Cadences:** Circle each cadence in blue and take care to include both horizontal components of the cadential formula.⁶⁸

After walking the students through these tasks using a piece no one will analyze officially, I then direct them to M. Jennifer Bloxam's website dedicated to Jacob Obrecht's *Missa de Sancto Donatiano* (<http://obrechtmass.com>), which includes an animated score that uses a similar set of analytical markings. Lastly, I ask the students to translate their analytical findings into written prose. In addition to their findings in items 1–3 above, they are directed to comment on changes in textural thickness (duets, trios, etc.), overlapping phrases, and, once again, any noteworthy features that seem to emerge in a post-analysis reflection.

Even before they take their assignments home, some students will likely notice that the opening monophonic intonation preceding the polyphonic setting does not seem to match their printed chants. This discrepancy provides an opportunity for explaining the variances among plainchant sources in the Renaissance, a conversation that might build on earlier discussions about oral transmission of chant before and during the emergence of chant notation. Students' initial anxiety over the discrepancies also amplifies an important procedural caveat that the instructor should address in class: it

Sundays throughout the calendar were casually named by their respective Introit—"Laetare Sunday," for example—and some students will find that the editors of the *Choralis* chose to print these names.

68. Modal analysis is also a possibility, but the unconventional clefs used in several of the pieces have proven to be a stumbling block for some students, causing such analysis to lead to diminishing returns.

is essentially an anachronism to use chants compiled and edited in the twentieth century for an analytical study of music from the early Renaissance. Students cannot be led to imagine that Isaac sat at his desk with sheets of paper just like theirs and began composing the polyphonic settings. In Isaac's particular case, however, using the conglomerated chant editions of the twentieth century does echo the compositional process in a fanciful but compelling way. Just as the chants in modern editions represent a conglomeration of manuscript sources, Isaac himself used no single identifiable source for the *Choralis* and likely drew from disparate sources or from his own memory; as a well-traveled musician, it is possible that he would have been familiar with different regional chant dialects and amalgamated these in his compositional mind.⁶⁹

As before, the jigsaw puzzle begins to take shape when the students return with their colorful scores and written notes. It is perhaps best to ask the students to begin their jigsaw group discussions with examinations of the original chant's paraphrased path throughout each work because the other stylistic traits flow from this fundamental procedure. With highlighted markings tracing the chant's presence, the finished scores will range from relatively unmarked to resplendent seas of pink. These visual disparities provide an easy opening for the discussion: some of the pieces share the chant almost evenly among all the voices whereas others seem to favor a single voice or pair of voices—usually the tenor and the discantus. The students will likely have some disagreement (after perhaps struggling in private) about whether or not the chant is actually present at particular moments; this issue arises from differing perceptions of the limits of paraphrase. At what point does the music simply reflect Isaac being Isaac?

The discussions will almost certainly gather momentum when the groups are prompted to discuss textural issues, particularly the voices' polyphonic relationships. Here the colored markings offer another entry point. Several of the pieces begin with imitative treatments of the plainchant—made obvious by the staggered colored markings—and these range from rapid one-measure entries in successively lower voices to widely spaced entries in no systematic order. Similar points of imitation recur throughout most of the pieces, and some students will note that Isaac seemed to favor particular pairs of voices

69. See Karp, "Some Chant Models for Isaac's *Choralis Constantinus*," 322–49 and Theodore C. Karp, "The Chant Background to Isaac's *Choralis Constantinus*," in *International Musicological Society Study Group Cantus Planus: Papers Read at the 7th Meeting, Sopron, Hungary 1995*, ed. László Dobszay (Budapest: Hungarian Academy of Sciences, Institute for Musicology, 1998), 337–41. If time permits, it can be helpful to illustrate this point with images of a fifteenth- or sixteenth-century chant source such as the *Graduale Pataviense*, whose appearance approximated the time and location of Isaac's work on the *Choralis*. See Christian Väterlein, ed., *Graduale Pataviense (Wien 1511)*, *Das Erbe Deutscher Musik* 87 (Kassel: Bärenreiter, 1982).

for carrying these parts (e.g., altus and bassus, or discantus and tenor). Imitative techniques are not limited to statements of the chant or to full points of imitation, and the most conscientious students will be ready to point out these moments that might be obscured by the pink. Finally, marking cadences in blue will help students consider the role that phrase endings play in the larger structural and textural frameworks of each piece. Most cadences include overlapping phrases, and the voice parts that continue through the cadence frequently vary in number. The interplay of duets, trios, and the full texture allows students to connect these works to Ockeghem's characteristic density as well as to Josquin's penchant for lightness.

Since the students will probably not have heard their pieces, the final discussion of other notable features should also reveal visually striking characteristics.⁷⁰ As with their chants, many students will note that seemingly important words are emphasized by length or repetition. Perhaps drawing on their experiences in instrumental ensembles, others will note Isaac's propensity to employ triadic "motives," a consequence of his attempt to retain consonance in a dense polyphonic texture [**Example 1**].⁷¹ In the *versus* section of *Vidimus stellam* (Epiphany), these two techniques are combined to emphasize the phrase "eius stellam," or "his star" [**Example 2**]. In *Hoc corpus*, there is a brief but jarring moment when the four voices present three distinct rhythmic profiles, two of which are unadorned statements of the chant [**Example 3**]. Students will also tend to notice the opposite phenomenon: homorhythmic moments that are easy to spot within the surrounding polyphonic environment. Certain pieces have brief homorhythmic moments that seem to emphasize particular words with textural contrast [**Examples 4a–b**], but the most stunning textural oddity is *Dominus dabit*, which blends a homorhythmic texture with staggered syllable placement from beginning to end [**Example 5**].⁷²

70. There are very few recordings of selections from the *Choralis*, even on YouTube, though this situation will certainly change if interest in Isaac's music continues to gather momentum.

71. These examples are taken from the *Denkmäler der Tonkunst in Österreich* editions of the *Choralis*, and page citations are given in Appendix A.

72. André Pirro has asserted that Isaac did conceive of a relationship between word meaning and texture: "When [the words] represent prayer, respect, the act of adoration or of sacrifice, he gives up the [polyphonic] design and repeats chords for each syllable." ["Quand elles désignant la prière, le respect, l'acte d'adoration ou du sacrifice, il renonce à dessiner, et répète des accords pour chacune des syllables."] This assertion seems to hold true in the given examples, though the authenticity of Isaac's authorship of *Dominus dabit* has been convincingly challenged by David Burn, who conjectures that it was perhaps a last-minute substitution—an interesting practical point to bring up in class discussion. See Pirro, *Histoire de la musique de la fin du XIVe siècle à la fin du XVIe* (Paris: H. Laurens, 1940), 197 [my translation] and Burn, "The Mass-Propers Cycles of Henricus Isaac," 190–94.

Example 1: Triadic Motives in *Ierusalem surge* (Communion), mm. 15–21.

de iu - cun - di - ta - - - - - tem,

de iu - cun - di - ta - tem, iu - cun - di - ta - tem, —

de iu - cun - - - - di - - - - ta - tem,

iu - cun - di - ta - tem, iu - cun - di - - - - ta - tem,

Example 2: Triadic Motives and Repetition in *Vidimus stellam* (Alleluia), *Versus* mm. 8–14.

stel - - - lam e - - - - - ius

stel - lam stel - lam stel - am e - - - - ius in

(stel) lam e - ius e - ius stel - - - lam e - ius in

ius e - ius e - ius e - - - - - ius in —

Example 3: Rhythmic Variety in *Hoc corpus* (Communion), mm. 51–54.

su - mi - - - - - tis, —

(mi) - - - - - tis

su - mi - - - - - tis

su - - - - mi - - - - - tis

Example 4: Homorhythm in *Vidimus stellam* (Alleluia).

4a) "in oriente," *Versus* mm. 14-22.

ius in o - ri - en - te et ve - - - - -

ius in o - ri - en - te in in in o - ri - en - - - - te

ius in o - - - ri - en - - - - te in o - ri - en - - - - te

in o - ri - en - te in o - ri - en - - - - -

4b) "adorare," *Versus* mm. 37-40.

(ne) - - - - - ri - bus ad - - - o - ra - re

(ri) - - - - - bus ad - o - ra - re

ad - o - ra - re

ad - o - ra - re

Example 5: Textural Density in *Dominus dabit* (Communion), mm. 1-11.

Da - bit be - ni - gni - ta - tem: et ter - ra no - - - - -

Da - bit be - ni - - - gni - ta - tem: et ter - ra no - - - - -

Da - bit be - ni - gni - ta - - - - - tem: ter - ra no - - - - -

Da - bit be - ni - gni - ta - - - - - tem: et ter - ra no - - - - -

Whereas the earlier Jigsaw exercise revealed the stylistic variety-in-unity achieved by the anonymous composers of plainchant, working with Isaac's expansive and varied output risks the student ascribing undue importance to his place among Renaissance composers. Careful moderation of full class discussions surrounding this exercise, however, should allow the student to create points of contact with the styles of Isaac's contemporaries and predecessors, thus mitigating this tendency. Isaac developed innovative and idiosyncratic techniques but, like most composers, drew from a shared stylistic vocabulary. The *Choralis* Jigsaw exercise helps students learn that vocabulary quickly and thoroughly. By the end of the project, students will have developed a detailed portrait of the Mass Proper that illustrates stylistic affinity with nearby eras, as well as cultural connections to the more distant past.

New Dots, New Puzzle Pieces: Reflections on the Jigsaw Propers Project

This article is not issuing a challenge to textbook authors or anthology compilers to include a selection or two from the *Choralis Constantinus*, which would defeat the purpose of the Jigsaw strategy. I am also not suggesting that settings of the Ordinary should be suppressed; they certainly are monuments of creativity, innovation, and craftsmanship in the late Middle Ages and Renaissance. Rather, this article opens the door for the sustained pedagogical treatment of the Proper as a complementary partner to the Ordinary, a direct reflection of its function within the Mass itself. By oscillating between the Ordinary and the Proper without showing preference for either, the teacher allows lessons on the Mass to remain rooted in the lived experience of medieval and Renaissance musicians, none of whom would have conceived of the Mass as merely the collection of Ordinary texts. The use of plainchant Propers alongside Isaac's polyphonic settings further encourages students to "connect the dots" between these two extensive repertoires, all without sacrificing what could be learned in an investigation of still another Ordinary. Plainchant and Renaissance sacred polyphony frequently punctuate significant sections of the undergraduate history sequence, and Jigsaw can augment these structural moments in the schedule with vigorous activity.

A second purpose of this article has been to illustrate the effectiveness of the Jigsaw concept in contexts outside of the small seminar room, where it is perhaps employed most frequently by college-level instructors. In addition to the benefits cited by theorists of cooperative learning, the strategy efficiently "decodes the discipline" of musicology by following the model designed by scholars at Indiana University and explored in a musicology-specific context by Burkholder. With Burkholder's "bottleneck" of determining shared

stylistic traits as a starting point, the Jigsaw implementation that I have described follows each of the later steps for decoding the discipline in turn.⁷³

1. It *explicitly models* the task of formulating thoughts about style by walking students through the analytical exercise before sending them out on their own.
2. It allows the students to *practice the exercise* by doing their analyses independently or in “expert groups.”
3. It *motivates the students* by giving them the opportunity to present their findings with peers in a non-adversarial space.
4. As the students share their work, it provides a *built-in assessment tool* for the instructor to evaluate the strategy’s effectiveness. Further assessment and evaluation tools might include a brief written comparison to a piece that uses a borrowed plainchant differently.⁷⁴

Jigsaw as a tool for decoding the discipline certainly has applicability beyond the Mass Proper, as well. I have used it with great success in distance learning courses for non-music majors, where students’ access to free or inexpensive music through YouTube and iTunes enables them to seek, analyze, describe, and share several different examples of music exhibiting specific stylistic traits (e.g., 32-bar AABA refrains or songs illustrating the Nashville Sound). Indeed, Jigsaw reinforces the use of Web 2.0 strategies such as Wiki creation and discussion board participation—two venues that allow large data sets to be collected by users and displayed in a multiplicity of organizational patterns.

A third purpose for this article is to make suggestions for carrying a detailed treatment of the Mass Proper from the medieval and Renaissance eras into other lessons and later installments of the music history sequence; how these suggestions manifest themselves concretely will be determined largely by individual circumstances, so they are intended to be starting points only. In addition to setting individual Propers, composers immediately surrounding Isaac employed Proper chants as the foundation for other polyphonic pieces such as Ordinaries and motets, and choosing these works for exploration in class would allow students to follow the text’s transformation across the common paths of borrowing noted by Bonds and Murray.⁷⁵

73. These steps may be found in Burkholder, “Decoding the Disciplines,” 111.

74. A much earlier piece such as Machaut’s *Messe de Nostre Dame* might work particularly well since it offers sufficient stylistic contrast and arose from a much different compositional mindset; see Appendix B.

75. Among those that I suggest in Appendix A, for example, *Terribilis est* is the tenor in *Nuper rosarum flores* by Dufay, who also set a number of individual Propers, and there are

Although very few composers after Isaac set a full collection of Propers, there are many instances throughout history of unique settings or groups of settings that may amplify presentations on broader historical themes—the Catholic “Counter-Reformation” or the nineteenth-century early music revivals, to cite only two examples.⁷⁶ A thorough grounding in the Proper and its meanings also provides students with a wider context for understanding the Requiem Mass, a genre whose unusual liturgical structure typically surfaces at least once in the survey, as well as different but related sacred texts, which also dot the historical landscape (e.g., *Ave verum corpus* or *O sacrum convivium*).⁷⁷ Lastly, a teacher may wish to trace the thread of chant borrowing into its several manifestations in later periods—quotations of the *Dies irae* Sequence in instrumental music or the evocation of a plainchant ethos in the music of certain twentieth-century composers, for example.⁷⁸ By the end of the survey, the instructor might wish to revisit the claims about plainchant made by textbook authors in early chapters, which would provide students with an

several Ordinaries by Josquin, Jean Mouton, La Rue, Palestrina, and Tallis that use Propers foundationally.

76. Here the choices are indeed numerous. Byrd’s and Palestrina’s settings of Proper texts fit well into lessons on the “Counter-Reformation,” and Francesco Corteccia’s nearly contemporaneous settings provide a nice stylistic counterpoint to these works—a slow-moving chant cantus firmus in the bassus voice with three freely moving, quasi-improvisatory lines on top. Michael Haydn also wrote several settings of Gradual and Offertory texts (with varying styles), and these might provide a useful complement to an Ordinary by Joseph Haydn or Mozart. Felix Mendelssohn’s grand polyphonic setting of *Tu es Petrus* (Op. 111) and Anton Bruckner’s motets taken from Proper texts might serve to frame discussions of the political and religious complexity of nineteenth-century early music revivals. And of course Anton Webern’s transcription of Volume II of the *Choralis Constantinus* connects the revivals to the Second Viennese School. Thank you to David Burn for pointing out the potential classroom value of Corteccia’s settings. They may be found in David J. Burn and Frank A. D’Accone, eds., *Francesco Corteccia: Collected Sacred Works, Counterpoints on the Cantus Firmit of Solemn Masses*, Corpus Mensurabilis Musicae 32: Music of the Florentine Renaissance, vol. 13 (Middleton, WI: American Institute of Musicology, 2009).

77. In addition to the several famous settings of the Requiem, György Ligeti’s *Lux aeterna* (the Requiem Communion) carries a great deal of pedagogical value in survey courses as well as those on music and film.

78. Here, too, the choices are numerous. Mendelssohn’s setting of the *Lauda sion* Sequence (Op. 73) is a strong choice for a direct chant borrowing, while Charles Tournemire’s magnum opus, *L’Orgue mystique* (1927–32), freely paraphrases several Proper chants. Even a handful of French Enlightenment-era composers borrowed from plainchant; see Jack Eby, “Chant-inspired Music in the Chapel of Louis XVI,” in *Chant and Its Peripheries: Essays in Honour of Terence Bailey*, ed. Bryan Gillingham and Paul Merkley (Ottawa: Institute of Medieval Music, 1998), 390–409. They are not typically found in anthologies, but certain works by d’Indy, Stravinsky, Poulenc, Honegger, Dupré, Duruflé, Langlais, and Respighi (among others) evoke a chant ethos and might offer both teacher and student an opportunity to explore this under-theorized facet of twentieth-century musical development.

opportunity to consider the whole sweep of history, to reflect on what they have carried from one part of the history survey to the next, and to re-assess their understanding of early music.

Finally, the Jigsaw Classroom's origin as a compassionate, though perhaps idealistic, response to the destructive forces of competition, favoritism, and discrimination is an apt place to begin reflecting on its value for music majors in particular, either within the undergraduate survey or elsewhere. With a handful of important exceptions, most music students enact Jigsaw's model of cooperation daily when they move from the practice room into the rehearsal hall, where "expert group" instrumental or vocal sections combine forces to form the jigsaw puzzle of ensemble music. Sensitive ensemble members intuitively understand that their contributions to the whole are both dependent on their individual preparation outside of the group and vital to the group's success, even when those contributions might appear to be asymmetrical with some made by others. Both sets of activities, individual and group, mutually reinforce one another and lead to personal growth as a musician. As James Davis has convincingly argued, however, music departments (or schools) are sociologically complex and rife with competitive attitudes that radiate from the rehearsal hall into the classroom.⁷⁹ Jigsaw, by contrast, provides a space in which egalitarianism reigns as the students momentarily leave the competitive world of music school politics and focus instead on solving musicological problems in teams. Last night's trumpet solo or a performance as the operatic lead will not matter in this space, and even last chair players have the opportunity to shine.

The Jigsaw method's modeling of ideal ensemble musicianship thus invites even more extensive applications, especially when combined with other strategies of active learning. The nature of the subject matter will help determine whether or not Jigsaw is an appropriate method, but as long as a single idea or concept can be sliced and diced into several smaller component parts, it can be a useful approach.⁸⁰ In addition to the web-based applications noted above, I have used Jigsaw as a way to frame in-class debates: students "enact" several historical personalities and debate a controversial issue in their

79. James A. Davis, "Classroom Discussion and the Community of Music Majors," *Journal of Music History Pedagogy* 1, no. 1 (2010): 5–17; <http://www.ams-net.org/ojs/index.php/jmhp/article/view/8/6>.

80. In an essay on writing about music, for example, Carol Hess describes an assignment in which students are tasked with weighing different accounts of an infamous event—in her case, the premiere of Stravinsky's *Rite of Spring*—and then assessing the plausibility of each in a writing assignment. Although the students presumably read all of the accounts on their own, this assignment could also be approached as a Jigsaw exercise: give one account to each student and have them discuss the plausibility of each in jigsaw groups before drawing their own individual conclusions about the sum total. See Hess, "Score and Word: Writing about Music," in Natvig, *Teaching Music History*, 197.

jigsaw groups (e.g., the future of music in the 1920s) after determining in their expert groups how that person might have responded to the debate questions. Similarly, students in an opera survey course might piece together plots in jigsaw groups after individually tracing a single character's musical development through the work. An even bolder experiment might involve a semester-long project in which students work together to create snapshots of single moments in time after individually researching musical activities within a single geographic location. In this type of exercise, as cosmopolitan characters such as Josquin, Handel, or Stravinsky travel from one place to another (depending on the period in question), the students reporting on each location would have built-in points of connection. As with any cooperative or collaborative learning exercise, Jigsaw also has possible drawbacks and invites adaptation and adjustment from context to context, but its versatility and its potential to empower students nevertheless make it a valuable addition to any teacher's toolkit.⁸¹

81. Burkholder summarizes these caveats in his survey of peer learning strategies. See J. Peter Burkholder, "Peer Learning in Music History Courses," in Natvig, *Teaching Music History*, 221–22.

Appendix A: Suggested Proper Texts⁸²

Text	Type	Pre-Trent Use	Post-1970 Use	DTÖ Location (Volume:Pages)
<i>Vidimus stellam</i>	Alleluia	Epiphany	Epiphany	32:18–20
<i>Dominus dabit</i>	Communion	Advent I	Advent I	10:122
<i>Hoc corpus</i>	Communion	Quadragesima V	Holy Thursday	10:223–5
<i>Ierusalem surge</i>	Communion	Advent II	Advent II	10:126–7
<i>Scapulis suis</i> [#]	Communion	Quadragesima I	Lent I	10:192–3
<i>Tu es Petrus</i>	Communion	Ss. Peter and Paul	Ss. Peter and Paul	32:94
<i>Cantate domino</i>	Introit	Easter V	Easter V	10:245–6
<i>Cibavit eos</i>	Introit	Corpus Christi	Corpus Christi	32:65
<i>Gaudeamus</i>	Introit	Various	Various	32:Various
<i>Laetare</i>	Introit	Quadragesima IV	Lent IV	10:210–12
<i>Oculi mei</i>	Introit	Quadragesima III	Lent III	10:201–2
<i>Puer natus</i>	Introit	Christmas Day	Christmas Day	32:5–6
<i>Resurrexi</i>	Introit	Easter Sunday	Easter Sunday	32:39–41
<i>Terribilis est</i>	Introit	Anniversary of Church Dedication	Anniversary of Church Dedication	32:140–1
<i>Viri Galilei</i>	Introit	Ascension	Ascension	32:50

[#] *Scapulis suis* is the only chant that is strikingly different in the *Graduale Romanum* and in the *Graduale Novum*; the others have very minor differences, if any.

82. The list of pre-Trent uses corresponds to those found in the *Missale Romanum* printed in Milan in 1474 (the “Mediolani” Missal) and in the *Graduale Pataviense* (Passau Gradual). For facsimiles of these sources, see Anthony Ward and Cuthbert Johnson, eds., *Missalis Romani Editio Princeps: Mediolani Anno 1474 Prelis Mandata* (Rome: CLV-Edizioni Liturgiche, 1996) and Christian Väterlein, ed., *Graduale Pataviense (Wien 1511)*, Das Erbe Deutscher Musik 87 (Kassel: Bärenreiter, 1982).

Appendix B: Sample Assessment and Rubric

Assessing group work poses inherent challenges, especially the decision of how to weigh the total work of the group, if at all, against the outcomes demonstrated by each individual. I suggested earlier that potential assessment tools in a jigsaw exercise might range from a quiz (perhaps taken as a group) to a large-scale paper (written by the individual student). In either case, the jigsaw group discussions might unfold similarly, or even identically, but the assessment method can radically alter the purpose of the assignment. As theorists of assessment have suggested, it can be helpful to design assessments driven by one's intended learning outcomes—what students should “get” out of an activity.⁸³

For this project, the learning outcomes focused primarily on style: What are the musical characteristics of a piece? Why specifically is this piece like or not like that other piece? How might we group pieces together? As Burkholder has suggested, these and similar questions form a foundational component of what it might mean to think within our discipline—to think like a music historian. A simple quiz with the direction, “List and describe five stylistic traits of Henricus Isaac’s *Choralis Constantinus*,” could be used as a quick way to judge the immediate effectiveness of the jigsaw group discussions, especially if the students take the same quiz before and after their discussions. Such a quiz would certainly measure whether or not students had retained key elements of their discussions and whether or not the group work mattered, but it seems to lose the power of Bonds’s “connecting the dots” theory, which encourages students to think beyond localized stylistic phenomena—another component of what it might mean to think like a music historian. In order to capture a larger historical arc, I designed a written assignment to be completed by individuals that incorporates specific items from the jigsaw group discussions, as well as the broader stylistic theme of musical borrowing, a more traditional thread animating much of the students’ previous work in my class.

The Assignment

So far this semester you have learned about several different strategies of musical borrowing. Like a science experiment, these strategies have included independent variables that change from piece to piece: what pre-existing materials were borrowed, how they were used, or both. This assignment

83. Although their book focuses specifically on rubrics, Dannelle D. Stevens and Antonia J. Levi offer a valuable series of exercises designed to help instructors reflect on learning outcomes and how these might translate into effective assessment tools. See their *Introduction to Rubrics: An Assessment Tool to Save Grading Time, Convey Effective Feedback, and Promote Student Learning* (Sterling, VA: Stylus, 2005), 29–36.

eliminates one of those variables by focusing specifically on plainchant borrowing (the “what”), which you have studied in the music of the Notre Dame polyphonists, Guillaume de Machaut, and Henricus Isaac. Your task is to write a concise yet well-developed paper of roughly 1,000 words that addresses the following two items:

1. The “How”—Compare and contrast the strategies of plainchant borrowing in the “Kyrie” of Guillaume de Machaut’s *La Messe de Notre Dame*⁸⁴ to those found in Henricus Isaac’s *Choralis Constantinus*. You should use your notes from the jigsaw group activity to help you with this item, and you must comment on more than your own selection from the *Choralis*.
2. Then, using your answers to item 1 as evidence, present a case arguing to what extent these strategies reflect changes in musical sensibilities across the medieval and early Renaissance eras (through Josquin). Although your answers to item 1 will provide you with ample evidence for the discussion, you should not limit it only to those items and you should consider the music of other composers, as well as broader historical context.

This assignment is challenging and may be your first significant paper in a music history course. To help you reflect on and improve your work as you progress, you should use the following intellectual standards as aids:⁸⁵

1. Clarity—Are the issues that you address (texture, cadences, “Renaissance style,” etc.) clearly defined and articulated?
2. Depth—Have you examined in detail the pieces and texts selected for discussion? Is your discussion complete? Are you using evidence to its fullest potential? Have you considered alternate interpretations of the evidence?
3. Precision—Are you identifying *specific* measure numbers and musical events, where applicable? Are the analytical points that you make exactly right?
4. Breadth—Does your discussion of musical style reflect the scope of the period? Does it take into account the musical characteristics of both pieces equally, and relate them to general trends in the medieval and

84. Included in J. Peter Burkholder and Claude V. Palisca, eds., *Norton Anthology of Western Music*, vol. 1, 6th ed. (New York: W. W. Norton, 2010), 127–32.

85. These “intellectual standards” are borrowed from the critical thinking models of Richard Paul and Linda Elder, which the University of Louisville has adopted as part of a cross-curricular critical thinking initiative. See <http://www.criticalthinking.org/pages/universal-intellectual-standards/527>.

the Renaissance periods? Are you considering the works of other composers? Are your paragraphs well-developed?

5. Relevance—Do your arguments and facts speak directly to the issues that you are addressing? Do your paragraphs focus on a single subject? Are any of your statements or paragraphs superfluous, especially at the beginning and the end of your paper?

The Rubric

Dimensions	Exemplary Paper	Competent Paper
Chant in Machaut (Stylistic Analysis)	The student accurately and clearly described plainchant in the Machaut mass as a tenor foundation (or similar) while noting that its isorhythmic Properties punctuate a kind of form. Other analytical points welcome.	The student accurately and clearly described plainchant in the Machaut mass as a tenor foundation but neglected other Properties of the chant.
Chant in Isaac (Stylistic Analysis)	The student accurately and clearly described Isaac's "free" use of chant within a metrical framework (using this or similar language), including its appearance in multiple voices, its employment as the basis for imitation, and the variability of paraphrase techniques (from a rather strict cantus firmus to virtual improvisation). Other analytical points welcome.	The student accurately and clearly described Isaac's "free" use of chant (using this or similar language), perhaps noting that it exists within a metrical framework, but neglected to define what "free" means using specific examples.
Stylistic Comparison of Machaut and Isaac	The student correctly concluded that the two strategies of plainchant borrowing (described above) were different and argued that other compositional procedures such as the relationship of the voices complemented or were a consequence of these strategies.	The student correctly concluded that the two strategies of plainchant borrowing (described above) were different.
Medieval Characteristics (Periodization)	The student made clear connections between the style of the Machaut mass and other stylistic features found in compositions from earlier or similar time periods, especially those with a borrowed tenor: organum quadruplum, isorhythmic motets, etc.	The student attempted to draw connections between the style of the Machaut mass and other stylistic features found in compositions from earlier or similar time periods, but the points of comparison were tenuous.

<p>Renaissance Characteristics (Periodization)</p>	<p>The student made clear connections between the style of the <i>Choralis Constantinus</i> and other stylistic features found in compositions from earlier, similar, or later time periods, especially those with other borrowings or similar polyphonic frameworks: pieces by Dufay, Ockeghem, Josquin, etc.</p>	<p>The student attempted to draw connections between the style of the <i>Choralis Constantinus</i> and other stylistic features of chronologically close compositions but focused exclusively on a single piece/composer or else made tenuous connections.</p>
<p>Changing Musical Sensibilities (“Connecting Dots”)</p>	<p>The student attempted to construct a narrative illustrating changing musical sensibilities, especially by using a significant sample of her/his choices above (e.g., organum, Machaut, Dufay, Isaac). The student also conjectured about the reasons why these changes took place (e.g., changing artistic values, social contexts, etc.).</p>	<p>The student attempted to construct a narrative illustrating changing musical sensibilities but limited the examples to Machaut and Isaac, or perhaps one other work. The student did not speculate about the reasons why these changes happened.</p>
<p>Use of the Intellectual Standards (Writing)</p>	<p>The student’s work demonstrates reflection on the intellectual standards by making precise arguments that employ a broad base of evidentiary support. The essay remains on topic from beginning to end and includes very little, if any, superfluous information. The analytical remarks are also detailed, precise, and thorough.</p>	<p>The student’s work demonstrates some engagement with the intellectual standards but is significantly lacking in one or two areas (e.g., precision and breadth).</p>