The Curtain Goes Up

"Gregorian" Chant, the First Literate Repertory, and How It Got That Way

LITERACY

Our story begins, as it must, in the middle of things. The beginning of music writing in the West—which not only made history possible, but in large part determined its course—coincided with no musical event. Still less did it mark the origin of music, or of any musical repertory.

Something over a thousand years ago music in the West stopped being (with negligible exceptions) an exclusively oral tradition and became a partly literate one. This was, from our perspective, an enormously important change. The beginning of music writing gives us access through actual musical documents to the repertories of the past and suddenly raises the curtain, so to speak, on developments that had been going on for centuries. All at once we are witnesses of a sort, able to trace the evolution of music with our own eyes and ears. The development of musical literacy also made possible all kinds of new ideas about music. Music became visual as well as aural. It could occupy space as well as time. All of this had a decisive impact on the styles and forms music would later assume. It would be hard for us to imagine a greater watershed in musical development.

At the time, however, it did not seem terribly important. There is not a single contemporary witness to the introduction of music writing in the West, and so we have only a rough idea of when it took place. Nobody thought of it then as an event worth recording, and that is because this innovation—momentous though it may appear in retrospect—was the entirely fortuitous by-product of political and military circumstances. These circumstances caused the music sung in the cathedral churches of Rome, the westernmost "see" or jurisdictional center of early Christendom, to migrate northward into areas that are now parts of France, Germany, Switzerland, and Austria. Musical notation arose in the wake of that migration.

The music thus imported during the eighth and ninth centuries—the first Western repertory to be notated as a coherent *corpus* or body of work—was not only sacred but liturgical. That is, it was set to the official Latin texts of Western Christian worship. It was not only vocal but monophonic, which is to say that it was sung by soloists or by chorus in unison, without accompaniment. From these facts it is easy to draw various false conclusions. It is easy to assume that in the West there was sacred music before there was secular, liturgical music before there was nonliturgical, vocal music before there was instrumental, and monophonic (single-voiced) music before there was polyphonic (multivoiced).

But Roman church chant was only one of many musical repertories that coexisted in Europe a thousand years ago. It is the first repertory that, thanks to notation, we can study in detail, and so our story must inevitably begin with it. And yet we know from literary and pictorial sources that there was plenty of secular and instrumental music at the time, as well as non-Christian worship music, and that these repertories had long histories going back long before the beginnings of Christian worship. We have every reason to assume, moreover, that much of the music sung and played in Europe had for centuries been polyphonic — that is, employing some sort of harmony or counterpoint or accompanied melody.

The fact that eighth-century Roman liturgical song — *cantus* in Latin, from which we get the word "chant" — was singled out for preservation in written form had nothing to do with musical primacy, or even with musical quality. The privilege came about, as already implied, for reasons having nothing to do with music at all. It will not be the last time such "extramusical" factors will play a decisive role in our account of musical history. That history, like the history of any art, is the story of a complex and fascinating interaction of internal and external influences.

THE ROMANS AND THE FRANKS

Late in the year 753, Pope Stephen II, accompanied by a large retinue of cardinals and bishops, did something no previous Roman pope had done. He crossed the Alps and paid a visit to Pepin III, known as Pepin the Short, the king of the Franks. They met on 6 January 754 at Pepin's royal estate, located at Ponthion, near the present-day city of Vitry-le-François on the river Marne, some 95 miles from Paris in what is now northeastern France. (France, then the western part of the Frankish kingdom, went in those days by the Roman name of Gaul; the country's modern name is derived from that of the people Pepin ruled.)

The pope was coming as a supplicant. The Lombards, a Germanic tribe whose territories reached from what is now Hungary into northern Italy, had conquered Ravenna, the capital of the Western Byzantine (Greek Christian) Empire, and were threatening Rome. Stephen asked Pepin, who three years earlier had concluded a mutual assistance pact with his predecessor Zacharias, to intercede on his behalf. When Pepin agreed to honor his earlier commitment, Stephen went with him to the cathedral city of Saint-Denis, just north of Paris, and cemented their covenant by officially declaring Pepin and his heirs to be honorary "Roman patricians" and recognizing them as the legitimate hereditary rulers of the united kingdom of the Franks, which encompassed (in addition to France) most of present-day Germany, Switzerland, and Austria, in addition to smaller territories now belonging to Italy, Slovenia, Croatia, and the Czech Republic. This ceremony inaugurated the Carolingian dynasty, which for the next two centuries would remain the most powerful ruling house in Europe.

Pepin duly invaded Italy. He not only successfully defended Rome but also wrested Ravenna and its surrounding territories back from Aistulf, the Lombard king. Ignoring the claims of the Byzantine emperor, Pepin made a gift of these territories to the pope; they became the so-called "Papal States," which were administered by the Roman see

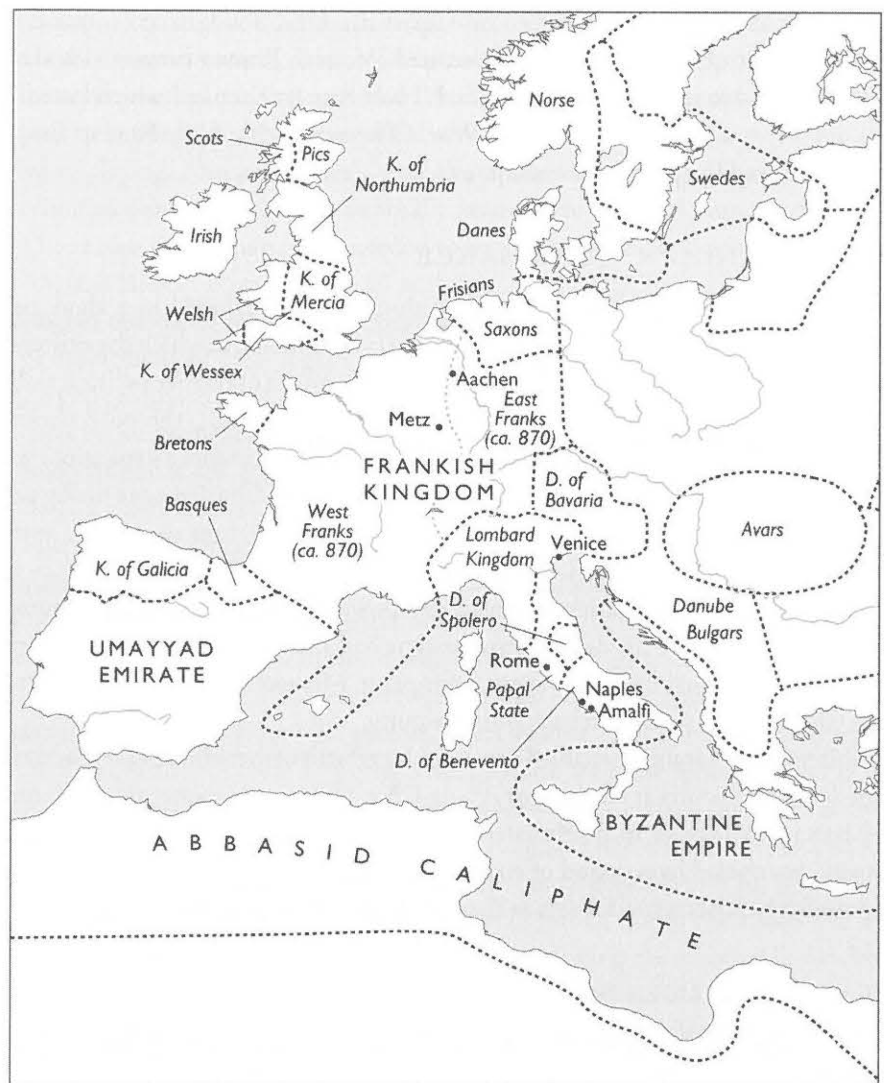


FIG. 1-1 Europe in the eighth century, shortly before the earliest notations of Christian chant.

as an independent country, with the pope as temporal ruler, until the unification of Italy in the nineteenth century. (The immediate territory around St. Peter's Church in Rome — a few city blocks known as Vatican City — is still recognized internationally as a temporal state, the world's smallest.) The Carolingian king and the Roman pope thus became political and military allies, pledged to mutual long-term support.

Thus, when in 773 Desiderius, a later Lombard king, made renewed forays against Adrian I, a later pope, it was a foregone conclusion that Pepin's son and successor Charles I, known as Charlemagne ("Charles the Great"), would intervene. Charlemagne did even better than his father, defeating the Lombards in Italy on their own ground and incorporating their kingdom into his own. After yet another intervention, this time on behalf of Adrian's successor, Pope (later Saint) Leo III, Charlemagne entered Rome

in triumph and was crowned by Leo on Christmas Day, 800 CE, as temporal ruler (with Leo as spiritual ruler) of the reconstituted Western Roman Empire. This date is traditionally said to inaugurate the so-called "Holy Roman Empire," which lasted—in name, anyway—until the First World War. (The actual title Holy Roman Emperor was first assumed by Otto I, crowned in 962.)

THE CAROLINGIAN RENAISSANCE

The nexus of imperial and papal authority thus achieved ushered in a short period comparable to the *pax romana* ("Roman peace") of late antiquity, in which the existence of an invincible and unchallengeable state brought about an era of relative political stability in Europe. Until the partition of Charlemagne's Empire in 843, the only significant changes in the map of Europe were those that marked the Empire's expansion, which reached a peak around 830. The period from the 780s, when Charlemagne finally gained the upper hand in a protracted, savage war with the pagan Saxons to the east, into the reign of his son and successor Louis I (known as Louis the Pious, reigned 814–840), was devoted to the consolidation of centralized power within the Carolingian domains. In 812, two years before his death, Charlemagne had the satisfaction of being formally recognized as an equal by the Byzantine Emperor Michael I, whose imperial lineage, unlike Charlemagne's, reached back into antiquity.

This interval of stability enabled a spectacular rebirth of the arts of peace, particularly at Charlemagne's courts at Aachen (or Aix-la-Chapelle), now in westernmost Germany, and Metz (or Messins), in northeastern France. This happy period for learning and creativity, purchased by a period of endless battles, forced migrations and conversions, and genocidal massacres, is known as the Carolingian Renaissance.

THE CHANT COMES NORTH

The importing of the Roman chant to the Frankish lands was one of the many facets of that Renaissance, during which all kinds of art products and techniques, from Ravenna-style architecture to manuscript illumination, were brought north from Italy to France and the British Isles, and all kinds of administrative, legal, and canonical practices were standardized. The central figure in this process was an English scholar, Alcuin or Albinus of York (ca. 735–804), whom Charlemagne invited to Aachen around 781 to set up a cathedral school.

A great proponent of literacy, Alcuin instituted one of the earliest systems of elementary education in Europe. He also devised a curriculum for higher education based on the seven "liberal arts" of the ancients, so named because they were the arts practiced by "free men" (men of leisure, which is to say the rich and the well-born). They consisted of two basic courses: the three arts of language (grammar, logic, and rhetoric), known as the *trivium*, which led to the Bachelor of Arts degree, and the four arts of measurement (arithmetic, geometry, astronomy, and music), known as the *quadrivium*, which led to the Master of Arts. (Doctoral studies were devoted to canon law and theology.) Within the quadrivium, music was conceived in entirely theoretical terms as an art of measurement:

measurement of harmonic ratios (tunings and intervals) and of rhythmic quantities (the classical poetic meters). This made possible its academic study in the absence of any form of practical musical notation. As a university subject music continued for centuries to be studied in that generalized and speculative way, quite unrelated to actual singing or playing. And yet Alcuin's zealous emphasis on writing things down became a Carolingian obsession that was eventually extended to practical music as well.

The reason the Roman chant needed to be imported had to do with the stress the Carolingians laid on centralization of authority, both worldly and ecclesiastical. The Carolingian territories were vast, incorporating peoples speaking many languages and a large assortment of local legal systems and liturgies. With the establishing of the Roman pope as spiritual patron of the Carolingian Empire, the liturgical unification of the whole broad realm according to the practices of the Roman See became imperative. It would symbolize the eternal order that undergirded the temporal authority of the Carolingian rulers and established their divine mandate.

This meant suppressing the so-called Gallican rite, the indigenous liturgy of the northern churches, and replacing it with Roman liturgical texts and tunes. "As King Pepin, our parent of blessed memory, once decreed that the Gallican be abolished," Charlemagne ordered the Frankish clergy on 23 March 789, in a document known as the *Admonitio generalis* ("General advisory"), "be sure to emend carefully in every monastery and bishop's house the psalms, notes, chants, calendar material, grammars, and the Epistles and Gospels. For often enough there are those who want to call upon God well, but because of poor texts they do it poorly." The texts in question, of course, were texts to be sung, as all liturgical texts are sung (for one does not "call upon God" in the kind of voice one uses to converse with one's neighbor). The words of the Roman liturgy could be imported easily enough in books, but in the absence of a way of writing down the tunes, the only means of accomplishing the required "emendation" was to import cantors (ecclesiastical singers) from Rome who could teach their chant by laborious rote to their Frankish counterparts. Difficulty was compounded by resistance. Each side blamed the other for failure. John the Deacon, an English monk writing on behalf of the Romans in 875, attributed it to northern baseness and barbarity. Notker Balbulus ("Notker the Stammerer"), the Frankish monk who wrote Charlemagne's first biography around the same time, attributed it to southern pride and chicanery.

THE LEGEND OF ST. GREGORY

From these squabbles we can guess at the reason for a venerable legend that became attached to the Roman chant around the time of its advent into written history. It was then widely asserted that the entire musical legacy of the Roman church was the inspired creation of a single man, the sainted Pope Gregory I, who had reigned from 590 until his death in 604. John the Deacon's complaint about Frankish barbarism actually comes from his biography of the presumed author of the chant. "St. Gregory compiled a book of antiphons," John wrote, using the contemporary term for a kind of liturgical singing. "He founded a *schola*," the chronicler continued, using the contemporary term for a choir, "which to this day performs the chant in the Church of Rome according to

his instructions; he also erected two dwellings for it, at St. Peter's and at the Lateran palace, where are venerated the couch from which he gave lessons in chant, the whip with which he threatened the boys, and the authentic antiphoner," the latter being the great book containing the music for the whole liturgical calendar.

That book could not have existed in St. Gregory's day, because there would have been no way of putting music into it. As Gregory's contemporary St. Isidore, Bishop of Seville (ca. 560–636), put it in his great encyclopedia called *Etymologiae* (or "Origins", "Unless sounds are held in the memory by man they perish, because they cannot be written down." By the ninth century, however, the legend of Pope Gregory as composer of what has been known ever since as "Gregorian chant" was firmly in place. It was propagated not only in literary accounts like that of John the Deacon but also in an iconographic or pictorial tradition that adapted a motif already established in Roman illuminated manuscripts containing Gregory's famous Homilies, or sermons, on the biblical books of Job and Ezekiel. According to this tradition, the pope, while dictating his commentary, often paused for a long time. His silences puzzled the scribe, who was separated from Gregory by a screen. Peeping through, the scribe beheld the dove of the Holy Spirit hovering at the head of St. Gregory, who resumed his dictation only when the dove removed its beak from his mouth. (It is from such representations of divine inspiration that we get our expression, "A little bird told me.")

(a)

(b)

FIG. 1-2 Two Carolingian manuscript illustrations showing divinely inspired authors at work. (a) In this illustration, from the so-called Gospel Book of Ebbo (first quarter of the ninth century), St. John is receiving the Gospel from the Holy Spirit in the guise of a dove. (b) This illustration, dating from about half a century later, is one of the earliest representations of Pope Gregory I (Saint Gregory the Great), who is receiving the chant from the same source. It comes from a sacramentary, a book containing the prayers recited by the celebrant at a solemn Mass. Charlemagne is known to have requested and received just such a book from Pope Hadrian I in 785.

These pictures are again found in early written antiphoners, or chant books, which began appearing in the Carolingian territories during the eighth century. Such books were generally headed by a prologue, which in the ninth century was occasionally even set to music to be sung as a "trope" or preface to the first chant in the book. *Gregorius Praesul,* it read in part, *composuit hunc libellum musicae artis scholae cantorum*: "Gregory, presiding [over the Church], composed [or, possibly, just 'put together'] this little book of musical art of the singers' choir." Thus the legend of St. Gregory's authorship was closely bound up with the earliest notation of the chant, suggesting that the two phenomena were related.

In fact both inventions, that of the legend and that of musical notation in the Christian west, were mothered by the process of musical migration decreed by the Carolingian kings. The legend was a propaganda ploy contrived to persuade the northern churches that the Roman chant was better than theirs. As a divine creation, mediated through an inspired, canonized human vessel, the Roman chant would have the prestige it needed to triumph eventually over all local opposition.

Gregory I was chosen as the mythical author of the chant, it is now thought, because many of the leading intellectual lights of the Carolingian court — like Alcuin and his predecessor St. Boniface (675–754), the reformer, under Pepin, of the Frankish church — were English monks who venerated St. Gregory as the greatest Christian missionary to England. (It was Alcuin's teacher, Bishop Egbert of York, who first referred to the Roman liturgy as "Gregory's antiphoner.") To this great figure, already reputed to be a divinely inspired author, these English writers may have attributed the work of his successor Pope Gregory II (reigned 715–731), who, it seems, really did have something to do with drawing up the standard Roman liturgical books some decades before their export north.

THE ORIGINS OF GREGORIAN CHANT

But of course neither did Gregory II actually compose the "Gregorian" chants. No one person did. It was a huge collective and anonymous enterprise that seems to have achieved standardization in Rome by the end of the eighth century. But what were its origins? Until very recently it was assumed as a matter of course that the origins of Christian liturgical music went back, like the rest of Christian practice and belief, to the "sacred bridge" connecting the Christian religion with Judaism, out of which it had originated as a heresy. The textual contents of the Gregorian antiphoner consisted overwhelmingly of psalm verses, and the recitation of psalms, along with other scriptural readings, is to this day a common element of Jewish and Christian worship.

It turns out, however, that neither the psalmody of the Christian liturgy nor that of today's synagogue service can be traced back to pre-Christian Jewish worship, let alone to Old Testament times. Pre-Christian Jewish psalmody centered around temple rites that came to an end when the temple itself was destroyed by the Romans in 70 CE. One has only to read some famous passages from the psalms themselves, as well as other biblical texts, to become aware of this disjuncture. Psalm 150, the climax of the Psalter,

or Book of Psalms, is in fact a description of ancient temple psalmody—singing God's praises—in fullest swing. It reads, in part:

> Praise him with fanfares on the trumpet,
> praise him upon the lute and harp;
> praise him with tambourines and dancing,
> praise him with flute and strings;
> praise him with the clash of cymbals,
> praise him with triumphant cymbals;
> let everything that has breath praise the LORD!

One will not find such goings-on in any contemporary Catholic church or synagogue; nor were they ever part of pre-Reformation Christian worship. (The Eastern Orthodox church, in fact, expressly bans the ritual use of instruments, and does so on the basis of the last line of this very psalm, for instruments do not have "breath," that is, a soul.) Nor can one find today much reflection of the "antiphonal" manner of psalmody described in the Bible, despite the later Christian appropriation (in modified form and with modified meaning) of the word "antiphon."

In its original meaning, antiphonal psalmody implied the use of two choirs answering each to each, as most famously described in the high priest Nehemiah's account of the dedication of the Jerusalem walls in 445 BCE, when vast choirs (and orchestras!) mounted the walls on opposite sides of the city gates and made a joyful noise unto the Lord. The verse structure of the psalms themselves, consisting of paired *hemistichs*, half-lines that state a single thought in different words (as in the extract above), suggests that antiphony was their original mode of performance.

And yet, although it was (and remains) the central musical activity in Jewish worship services, psalmody was—perhaps surprisingly—not immediately transferred from Jewish worship to Christian. It does not figure in the earliest accounts of Christian worship, such as Justin Martyr's description of the Sunday Eucharist (ritual of blessings) or Lord's Supper, later known as the communion service or Mass, at Rome sometime around the middle of the second century. Justin mentions readings from the prophets and apostles, sermons, prayers, and acclamations, but no psalms. In short, there is nothing in the earliest descriptions of Christian worship to correspond with the later repertory of Gregorian chant. That repertory was not a direct inheritance from Christianity's parent religion. It originated elsewhere, and later.

Exactly when cannot be pinpointed, but psalmody had entered the Christian worship service by the beginning of the fifth century, when the Spanish nun Egeria sent a letter back home from Jerusalem describing the services she had witnessed in the oldest and holiest Christian see. "Before cockcrow," she wrote, "all the doors of the church are opened and all the monks and nuns come down, and not only they, but also those lay people, men and women, who wish to keep vigil at so early an hour. From that time until it is light, hymns are sung and psalms responded to, and likewise antiphons; and with every hymn there is a prayer."

The important points to note are two: it is a night service (or office) that is being described, and it is primarily a monastic gathering, even though the laity has

been admitted. The origins of Christian psalmody, hence the earliest intimations of Gregorian chant, lie not in the very public worship of the Jewish temple, but in the secluded vigils of the early Christian ascetics.[1]

MONASTIC PSALMODY

Christian monasticism arose in the fourth century in reaction to the church's worldly success following its establishment as the official religion of the late Roman empire. Whereas earlier the Christians were persecuted in Rome for their pacificism and their contempt for temporal authority, now, as the custodian of an imperial state religion, the Christian church itself took on the attributes of an imperium. Its clergy was organized into a steep hierarchy. That clerical hierarchy, in turn, put forth an elaborate theology and an enforceable canon law, and modified the church's teachings so as to support the needs of the temporal state that supported it, needs that included the condoning of legal executions and military violence. The state Christian church could no longer afford the pure pacificism it had espoused when it was a persecuted minority. Indeed, it now became itself a persecutor of heretics.

In the face of this increasingly pompous and official ecclesiastical presence in the world, an increasing number of Christian enthusiasts advocated flight from the city, retreating into a solitary and simple life more consonant, in their view, with the original teachings of Christ. Some, like the Egyptian hermit St. Anthony the Abbot (ca. 250–350), established colonies of anchorites devoted to solitary prayer and mortification of the flesh. Others, like St. Basil (ca. 330–379), the Bishop of Caesarea, the Roman capital of Palestine (now Kayseri in central Turkey), conceived of monastic life not in

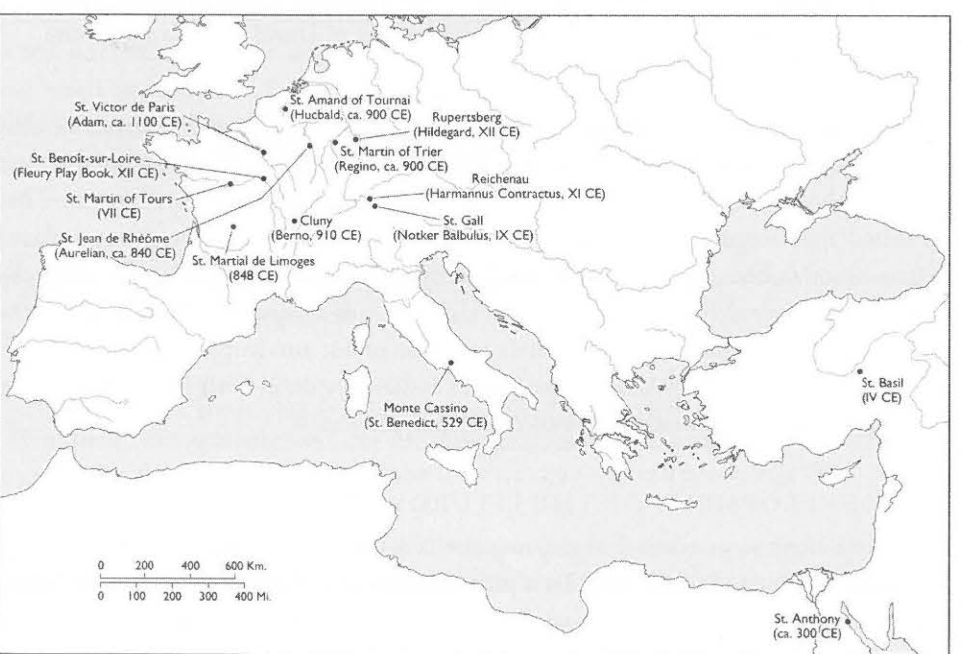


FIG. I-3 Early Christian monastic centers.

eremitic terms but in terms of *koinobios*—ascetic communal living devoted to pious, meditative fellowship and productive work.

It was in such a communal context that the psalmodic practices arose that would eventually produce the Gregorian chant. An important aspect of the monastic regimen was staying up at night, a discipline known as the vigil. To help them keep awake and to assist their meditations, monks would read and recite constantly, chiefly from the Bible, and particularly from the Psalter. The standard practice, eventually turned into a rule, was to recite the Psalter in an endless cycle, somewhat in the manner of a mantra, to distract the mind from physical appetites, to fill the back of the mind with spiritually edifying concepts so as to free the higher levels of consciousness (the *intellectus*, as it was called) for mystical enlightenment. In the words of St. Basil himself:

> A psalm implies serenity of soul; it is the author of peace, which calms bewildering and seething thoughts. For it softens the wrath of the soul, and what is unbridled it chastens. A psalm forms friendships, unites those separated, conciliates those at enmity. Who, indeed, can still consider him an enemy with whom he has uttered the same prayer to God? So that psalmody, bringing about choral singing, a bond, as it were, toward unity, and joining the people into a harmonious union of one choir, produces also the greatest of blessings, charity.[2]

Half a century after St. Basil wrote these words, St. John Chrysostom, an eminent Greek church father, confirmed the triumph of psalmody, the musical legacy of David, the biblical Orpheus, who like his Greek mythological counterpart could miraculously affect the soul with his singing:

> In church when vigils are observed David is first, middle and last. At the singing of the morning canticles David is first, middle, and last. At funerals and burials of the dead again David is first, middle, and last. O wondrous thing! Many who have no knowledge of letters at all nonetheless know all of David and can recite him from beginning to end.[3]

Christian psalmody emphasized not metaphors of wealth and exuberance (the orchestras, dancers, and multiple choirs of the Temple) but metaphors of community and discipline, both symbolized at once by unaccompanied singing in unison. That remained the Gregorian ideal, although the community of worshipers was replaced in the more public repertory of the Mass by the specially trained and eventually professional *schola*. Monophony was thus a choice, not a necessity. It reflects not the primitive origins of music (as the chant's status as oldest surviving repertory might all too easily suggest) but the actual rejection of earlier practices, both Judaic and pagan, that were far more elaborate and presumably polyphonic.

THE DEVELOPMENT OF THE LITURGY

One of the first steps toward organizing the ceaseless cyclic psalm-chanting of early monastic vigils into a liturgy—that is, a prescribed order—was taken by St. Benedict of Nursia in his famous *Regula monachorum*, the book of rules that governed the lives of the monks in the monastery Benedict founded at Monte Cassino in 529. With apologies for the laxity of his ordinance, he required that the Psalter be recited not in a single marathon

bout but in a weekly round or *cursus* of monastic Offices, eight each day. The greatest single portion went to the Night Office (now called *matins*, literally "wee hours"), in which twelve or more full psalms were performed, grouped by threes or fours (together with prayers and readings from scripture) in large subdivisions known as "nocturns."

The Night Office, traditionally the primary site of psalmodic chanting, thus accounted for roughly half of the weekly round of psalms. It being the most spacious of the monastic services (since there was nothing else to do at night but sing or sleep), many psalms were sung, and the lessons were framed by lengthy *responsoria* (responsories)—chants sung in a more expansive style in which individual syllables could be sung to two, three, four, or more notes, even whole cascades called melismas.

Melismatic singing was held by Christian mystics to be the highest form of religious utterance: "It is a certain sound of joy without words," St. Augustine wrote of melismatic chanting in the fourth century, "the expression of a mind poured forth in joy."[4] It came to be called jubilated singing, after *jubilus*, Latin for a "call" upon God (as in Charlemagne's *Admonitio*, quoted earlier; compare the root *ju-*, pronounced "yoo," as in "yoo-hoo!"). This musical jubilation, in fact, was the means through which the Latin word took on its secondary (in English borrowings, primary) association with joy.

The jubilated singing at matins was a lusher version of the refrains that were added to psalms—together with a concluding *doxology* (from the Greek for "words of praise") to the Holy Trinity—in their other Christian uses. These simpler refrains were called antiphons, possibly because they alternated with the psalm verses in a manner that recalled biblical multichoral antiphony.

The shorter services were the day offices. They began with the dawn office of praise (*Lauds*) and continued with four "minor hours" named after the clock hours in medieval parlance: *prime* (the first hour; in present-day terms, 6 A.M.), *terce* (the third hour, or 9 A.M.), *sext* (the sixth hour, or 12 noon), and *none* (the ninth hour, or 3 P.M.; the fact that our word noon derives from none is just one of those things). At these tiny services (often combined in pairs so that there would be more uninterrupted time for work), we can observe the liturgy in microcosm. At a minimum an office included a psalm, a scripture reading ("chapter" or *capitulum*), and a hymn, which was a metrical song of praise derived from Greek pagan practice, showing again how eclectic were the sources of the Christian liturgy that was once thought to descend in simple fashion from that of the temple and synagogue. St. Augustine's definition of a hymn is neat:

> A hymn is song with praise of God. If you praise God and do not sing, you do not utter a hymn. If you sing and do not praise God, you do not utter a hymn. If you praise anything other than God, and if you sing these praises, still you do not utter a hymn. A hymn therefore has these three things: song, and praise, and God.[5]

The public liturgical day ended with evensong or Vespers, consisting of several full psalms with antiphons, along with the psalm like "Canticle of Mary" (known as the *Magnificat* after its first word). There was a bedtime service for monks called *Compline* (completion), at which special elaborate antiphons (or "anthems," to use the English cognate) came to be sung, in the later middle ages, to the Blessed Virgin as a plea for her

intercession. (Compline and Lauds are the other services that contain canticles—texts from the New Testament that are sung in the same manner as psalms, with antiphons and doxology.)

Just as the liturgical day was a cycle of services, and the monastic week was a cycle of psalms, so the whole church calendar was organized in a yearly cycle of commemorations, known as feasts, that became ever more copious and diverse over time—wheels within wheels within wheels, within which Christian monastics lived out their lives, fulfilling the prophet's mystical vision (see Ezekiel 1:15–21). The basic framework was provided by the Proper of the Time, or *temporale*, commemorating events in the life of Christ, organized in two great cycles surrounding the two biggest feasts, Christmas and Easter.

Their complicated relationship epitomizes the eclecticism of Christian worship. The Christmas cycle, beginning with four solemn weeks of preparation called Advent and ending with the feast of Epiphany, is reckoned by the Roman pagan (secular and solar) calendar. The Easter cycle, beginning with the forty-day fast called Lent and ending with the feast of Pentecost, is reckoned by the Jewish lunar calendar, as modified by councils of Christian bishops to insure that Easter fell on Sunday (*Dominica*—"the Lord's Day"—in Latin). Since the date of Easter can vary by as much as a month relative to that of Christmas, the calendar allows for a variable number of Sundays after Epiphany (on one side of Easter) and Sundays after Pentecost (on the other) to take up the slack.

The church calendar also came to include a cycle of Saints' commemorations (the *sanctorale*), a cycle of feasts of the Virgin Mary, and many other occasions as well, including special (so-called votive) occasions where prayers and offerings are made, such as weddings, funerals, or the dedication of a church. As official occasions were added to the calendar—and they continue, in a small way, to be added and deleted to this day—they had to be provided with appropriate texts and tunes. The actual book of psalms was fixed, of course, but the antiphons and responds drawn from it could vary; indeed they had to, for this was the primary means of differentiating the feasts. Antiphons and responds, then, became the primary site of new musical composition during the centuries in which the evolution of the chant was hidden behind the curtain of "oral tradition." Antiphons remain, by and large, settings of psalm verses; but they are composites, made up of individual, freely selected verses that have some reference to the occasion. Selecting individual verses for setting as antiphons and responds is called the "stichic" principle (from the Greek for "verse") as opposed to the "cursive" principle of complete cyclic readings. The stichic chants are not merely sung to a monotonous recitation "tone," as in cursive psalmody, but are set as real melodies, the glory of the Gregorian repertory.

THE MASS AND ITS MUSIC

The greatest flowering of such liturgical "arias" came toward the end of the period of Gregorian oral composition, with the selection and completion of formularies—full sets of antiphons and responds—for the yearly round of Mass services.

The Mass is a public adaptation of the Christian counterpart, known as *agape* or "love feast," of the Jewish Passover seder, the occasion of Christ's last supper. It has two parts. The first, called the *synaxis* ("synagogue," after the Greek for a meeting or assembly) or the Mass of the Catechumens, consists, like the synagogue service, of prayers and readings. It is an exoteric service, open to those who have not yet completed their religious instruction (known as *catechism*, whence *catechumen*, one undergoing indoctrination). The second, an esoteric service known as the Eucharist or the Mass of the Faithful, is closed to all who have not yet been baptized and consists of a reenactment of the last supper in which the congregation mystically ingests the blood and body of Christ in the form of miraculously transubstantiated wine and bread.

Mass was at first celebrated only on the Dominica and the Christian holidays, between the hours of terce and sext (i.e., around 10 A.M.). Later on, it came to be celebrated also on weekdays (*feriae* in Latin, whence "ferial" as opposed to "festal" Mass). Being a public service that incorporated a great deal of action, the Mass did not contain full cursive psalmody or hymns with their many *strophes* or stanzas. Instead, it featured short, stichic texts set to elaborate music; these short texts, assembled in large repertories, articulated the "proper" identity of each occasion at which Mass was celebrated—feast, Sunday, or saint's day.

An antiphon plus a verse or two accompanies the entrance of the celebrants, called the *Introit*. Between the two main synaxis readings or "lessons" (from Paul's Epistles and from the Gospels, respectively) come the *Gradual*, named for the stairs by which the celebrants ascend to the pulpit from which the Gospel is read, and the *Alleluia*. These are the most ornate responds of all, with elaborately set verses for virtuoso soloists. Probably the oldest psalmodic chants specifically designed for the Mass, the lesson chants are said to have been introduced by Pope Celestine I, who reigned from 422 to 432. Antiphons then accompany the collection (Offertory) and the consummation of the Eucharist (Communion).

NEUMES

It is this special body of psalmodic chants for the Mass, consisting of about five hundred antiphons and responds, that is in strictest terms the repertory designated by the phrase "Gregorian chant." It was this corpus that was imported by the Carolingian Franks under Pepin and Charlemagne and thus became the earliest music in the European tradition to be written down. The interesting thing, as we have already observed, is that this writing down, which seems to us such a momentous event, seems to have occasioned so little notice at the time.

There is not a single literary reference to document the invention of the so-called *neumes* that tracked the relative rise and fall of the tunes, and the placement within them of the text syllables, in the earliest musically notated ("neumated") manuscripts. Etymologically, the word "neume," which comes to us by way of medieval Latin from the Greek word *pneuma* ("breath," whence vital spirit or soul), referred to a characteristic melodic turn such as may be sung on one breath. By now, however, the word more

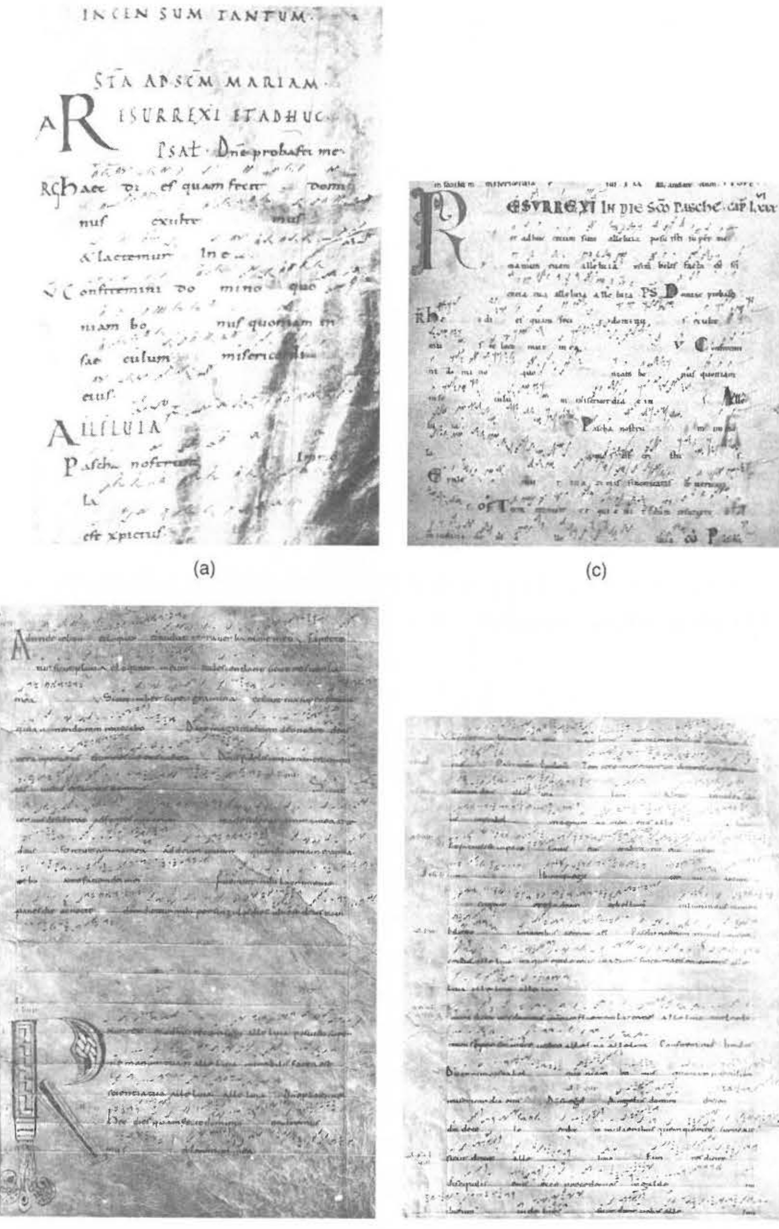
commonly denotes the written sign that represented such a turn. Since surviving antiphoners with neumes do not seem to date before the beginning of the tenth century, several generations after the Carolingian chant reform had been undertaken, scholarly speculation about the actual origins of the neumes and the date of their first employment has enjoyed a very wide latitude.

Traditionally, scholars assumed that the Carolingian neumes were an outgrowth of the "prosodic accents," the signs—acute, grave, circumflex, etc.—that represented the inflection of poetry-recitation in late classical antiquity, and that still survive vestigially in the orthography of modern French. (As originally conceived, the acute accent meant a raising of the vocal pitch, the grave a lowering, the circumflex a raising-plus-lowering.) Others have proposed that the neumes were *cheironomic*: that is, graphic representations of the hand-signaling (*cheironomy*) by which choirmasters indicated to their singers the rise and fall of a melody. A more recent theory associates the neumes with a system of punctuation signs that the Franks seem to have developed by around 780—functional equivalents of commas, colons, question marks, and so on, which break up (parse) a written text into easily comprehended bits by governing the reader's vocal inflections. All of these explanations assume that the neumes were parasitic on some earlier sign-system, and yet we have no actual basis in evidence to rule out the possibility that the neumes were independently invented in response to the immediate musical purpose at hand.

There were other early schemes for graphically representing music, some of them much older than the Carolingian neumes. Some did not even reflect melodic contour but were entirely arbitrary written signs that represented melodic formulas by convention, the way alphabet letters represent speech sounds. The ancient Greeks used actual alphabetic signs as musical notation. Alphabetic notation survived to a small extent in medieval music treatises, like that of the sixth-century encyclopedist Boethius, which formed the basis for music study within the *quadrivium* curriculum.

More familiar examples of special formula-signs for music, called *ecphonetic* neumes, include the so-called Masoretic accents (*ta'amim*) of Jewish biblical cantillation, which Jewish children are taught to this day in preparation for their rite of passage to adulthood (*bar* or *bat mitzvah*), when they are called to the pulpit to read from scripture. To learn to read *ta'amim* one must have a teacher to instruct one orally in the matching of sign and sound. Such matching, being arbitrary, can vary widely from place to place, and also varies according to the occasion, or according to what kind of text is being read. The same signs, for example, will be musically realized one way in readings from the prophets and another, usually more ornate, in readings from the Pentateuch; the very same portion of Scripture, moreover, will be variously realized on weekdays, Sabbaths, or holidays.

The contour-based Carolingian neumes follow an entirely different principle of representation. It is the only system that has direct relevance to the history of Western music, because out of it developed the notation that is familiar to every reader of this book, the one that has served as graphic medium for practically all music composed in what we consider to be our own continuous (or at least traceable) musical tradition.



(a) (c) (b)

FIG. 1-4 Easter Introit, *Resurrexi*, as it appears in three neumated manuscripts from the Frankish territories. (a) From a cantatorium, or soloist's chant book, prepared at the Swiss monastery of St. Gallen early in the tenth century (before 920). (b) This may be the oldest version of the chant to have survived into modern times; it comes from a graduale, or book of chants for the Mass, prepared in Brittany in the late ninth or early tenth century and kept at the municipal library of Chartres, near Paris. It was destroyed toward the end of World War II. (c) From a graduale prepared perhaps 250 years later (early twelfth century) in the cathedral town of Noyon in northern France and kept today at the British Library in London. By this time the neumes might have been written on a staff to fix their pitches precisely, but the scribe did not avail himself of this notational innovation—indicating that the notation still served as a reminder to the singer of a melody learned orally and memorized.

עשו: 23 ולא הכירו כי־היו ידיו כידי עשו אחיו שערת ויברכהו:
24 ויאמר אתה זה בני עשו ויאמר אני: 25 ויאמר הגשה לי ואכלה
מציד בני למען תברכך נפשי ויגש־לו ויאכל ויבא לו יין וישת:
26 ויאמר אליו יצחק אביו גשה־נא ושקה־לי בני: 27 ויגש וישק־לו
וירח את־ריח בגדיו ויברכהו ויאמר
ראה ריח בני כריח שדה אשר ברכו יהוה:

FIG. 1-5 Passage from the Book of Genesis showing *ta'amim,* ecphonetic neumes entered above or below each word in the Torah along with the vowels. Starting at the number 23 (remember that Hebrew is written from right to left), in the first word the neume is the right-angled corner below the middle letter; in the second word it is the dot above the last letter. In the hyphenated word that follows there are two neumes: the vertical dash below the first letter and the right angle under the penultimate word. Unlike Gregorian neumes, *ta'amim* do not show melodic contour and must be learned orally by rote according to an arbitrary system that can vary from place to place, book to book, or occasion to occasion.

Some scholars think that the Carolingian neumes, in their very earliest application, were used not to notate the imported, sacrosanct Gregorian repertory, which was learned entirely by heart, but to notate lesser, newer, or local musical accessories to the canonical chant such as recitation formulas (known as "lection tones") for scriptural readings, as well as the explanatory appendages and interpolations to the chant, including polyphonic ones, about which there will be more to say in the next chapter. (It is true that the earliest neumated sources for such "extra" items do predate the earliest surviving neumated antiphoners.) Other scholars assume that prototypes for the surviving Carolingian antiphoners once existed, perhaps dating from as early as the time of Charlemagne's coronation as Emperor at the end of the eighth century, more than a century before the earliest surviving manuscripts were produced.[6]

Whenever the Carolingian neumes first appeared, whether before 800 or after 900, the fact remains that they shared the limitation of all the early neumatic systems: one cannot actually read a melody from them unless one knows it already. To read a previously unknown melody at sight, one needs at a minimum a means of precise intervallic (or relative-pitch) measurement. It was not until the early eleventh century that neumes were "heighted," or arranged *diastematically,* on the lines and spaces of a cleffed staff (invented, according to tradition, by the monk Guido of Arezzo, whose treatise *Micrologus,* completed around 1028, included the earliest guide to staff notation). Only thereafter was it possible to record melodies in a way that could actually transmit them soundlessly.

PERSISTENCE OF ORAL TRADITION

As scholars are beginning to recognize, the fact that the earliest notations of the canonized liturgy did not communicate actual pitch content shows that no one expected or needed them to do so. In some theoretical treatises of the ninth century, when pitch content needed to be shown, alphabetic notation adapted from the quadrivium treatises

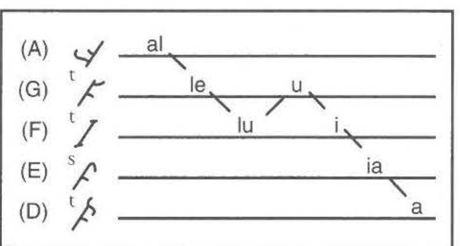


FIG. 1-6 Greek-derived alphabetic notation from *Musica enchiriadis* (ca. 850). Such notation (used by Boethius in the sixth century) did fix pitch precisely; this suggests that Gregorian chant might have been notated that way from the beginning, had anyone seen the need for it.

was employed. On the other hand, manuscripts with unheighted neumes went on being produced in Frankish monastic centers — even St. Gallen (now in eastern Switzerland), where the earliest surviving neumated antiphoners were inscribed — until the fifteenth century. This shows that the communication of the actual pitch and interval content of liturgical melodies went right on being accomplished by age-old oral/aural methods, that is, by listening, repeating, and memorizing. Most monks (and regular churchgoers, too, until the chant was largely abandoned by the church in the 1960s) still learn their chants that way. Notation did not supersede memory, and never has.

After a thousand years of diastematic notation, five hundred years of printing, and a generation of cheap photocopying, Western "art-musicians" and music students (especially those with academic educations) have become so dependent on texts that they (or rather, we) can hardly imagine minds that could really use their memories — not just to store melodies by the thousand, but to create them as well. By now, we have all to some degree fallen prey to the danger about which Plato was already warning his contemporaries some two and a half millennia ago: "If men learn writing, it will implant forgetfulness in their souls" (*Phaedrus,* 275a). So it is no wonder that "classical" musicians habitually — and very wrongly — tend to equate musical composition in an oral context with improvisation.

Improvisation — making things up as you go along in "real time" — is a performance art. It implies an ephemeral, impermanent product. But while some forms of orally transmitted music (jazz, for example) do enlist the spontaneous creative faculty in real time, there have always been musicians (today's rock bands, for example) who work out compositions without notation yet meticulously, in detail, and in advance. They fix their work in memory in the very act of creating it, so that it will be permanent. Every performance is expected to resemble every other one (which of course need not preclude retouching or improvement over time, or even spontaneously). Their work, while "oral," is not improvisatory. The creative and re-creative acts have been differentiated.

And that is how Gregorian chant seems to have been created over a period spanning half a millennium at least. It was the exigencies of migration northward that made notation desirable as a fixative, but the nature of the early written sources (tiny books, for the most part) suggests that notation was at first not the primary means of transmission but only a mnemonic device (that is, a reference tool to refresh memory), or an arbiter of disputes, or even a status symbol. (If the Mass celebrants — the priests and deacons — had their little books, why not the cantors?) So it is important to remember that literacy did not suddenly replace "orality" as a means of musical transmission but gradually joined it. Since the time of the earliest Carolingian neumated antiphoners,

the two means of transmission have coexisted in the West in a complex, ever-evolving symbiosis. There are plenty of familiar tunes that are still transmitted within our culture almost exclusively by oral means: national anthems, patriotic and holiday songs ("America," "Jingle Bells"), songs for occasional use ("Take Me Out to the Ballgame," "Happy Birthday to You"), folk songs ("Home on the Range," "Swanee River"), as well as a vast repertory of children's songs — or songs that have become children's songs — in transmitting which adults rarely play a part ("It's raining, it's pouring," "Oh they don't wear pants in the sunny south of France").

Almost all of these songs, many of them composed by literate musicians (like Stephen Foster, author of "Swanee River" and many other songs that now live mainly in oral tradition), have been published and even copyrighted in written form. Yet while almost every reader of this book will be able to sing them by heart, very few will have ever seen their "sheet music." They are generally encountered "in situ" — in the places and on the appropriate occasions of their use. Some of them, especially patriotic and religious songs, are formally taught by rote in schools or churches or synagogues; many others, perhaps most, are simply "picked up" the way a language is by its native speakers.

At the same time, the Western music most likely to be thought of as belonging exclusively to the literate tradition — sonatas, symphonies, "classical music" generally — actually relies for its transmission on a great deal of oral mediation. Teachers demonstrate to their pupils by aural example many crucial aspects of performance — nuances of dynamics, articulation, phrasing, even rhythmic execution — that are not conveyed, or are inadequately conveyed, by even the most detailed notation; and the pupils learn directly to imitate what they have been shown (or better, to emulate it, which implies an effort to surpass). Conductors communicate their "interpretations" to orchestras and choruses by singing, shouting, grunting, gesticulating. Earlier, the composer may have sung, shouted, grunted, and gesticulated at the conductor. Not only jazz performers, but classical ones, too, copy the performances of famous artists from recordings as part of their learning process (or as part of a less openly admitted process of appropriation). All of this is just as "oral" a means of transmission as anything that may have happened in Rome to produce the Gregorian chant before its migration northward.

The great difference, of course, is that when a work within a partly literate tradition is completed, it need not be committed to memory in order to go on in some sense existing. It is the sense that an art work may exist independently of those who make it up and remember it that is distinctive of literate cultures. (As we shall see, it is that sense that allows us even to have the notion of a "work of art.") And another difference is that having works of music, however large their scale, in written form encourages us to imagine or conceptualize them as objects, which is to say as "wholes," with an overall shape that is more than the sum of its parts. Concepts of artistic unity in works of performing art, and, conversely, an awareness of the function of the parts within the whole in such works (what we call an *analytical* awareness), is thus distinctive of literate cultures. Since the performance of such works must unfold in time, but the written artifacts that represent them are objects that occupy space, one can think of

FIG. I-7 Original sheet music for the chorus of "Take Me Out to the Ball Game," a waltz song composed in 1908 by Albert Von Tilzer to words by Jack Norworth. Very few people remember these facts about the song's provenance, and virtually nobody learns it from the printed page. Its utterly forgotten lead-in verse puts the famous chorus in the mouth of a young girl: "Katie Casey was baseball mad,/Had the fever and had it bad;/Just to root for the hometown crew,/Ev'ry sou Katie blew./On a Saturday, her young beau/Called to see if she'd like to go/To see a show, but Miss Kate said, 'No,/I'll tell you what you can do.'" The chorus has flourished by itself in oral tradition for almost a century. As always, the oral tradition has modified what it transmits, here only in small ways, but irrevocably. The tune has survived the mouth-to-mouth process unchanged, but many people now sing "Take me out to the crowd," and everyone sings "For it's root, root, root."

literate cultures as cultures that tend conceptually to substitute space for time—that is, to spatialize the temporal. This is an important idea, one that we shall have many occasions to refer to in the course of our survey of Western music in history.

PSALMODY IN PRACTICE: THE OFFICE

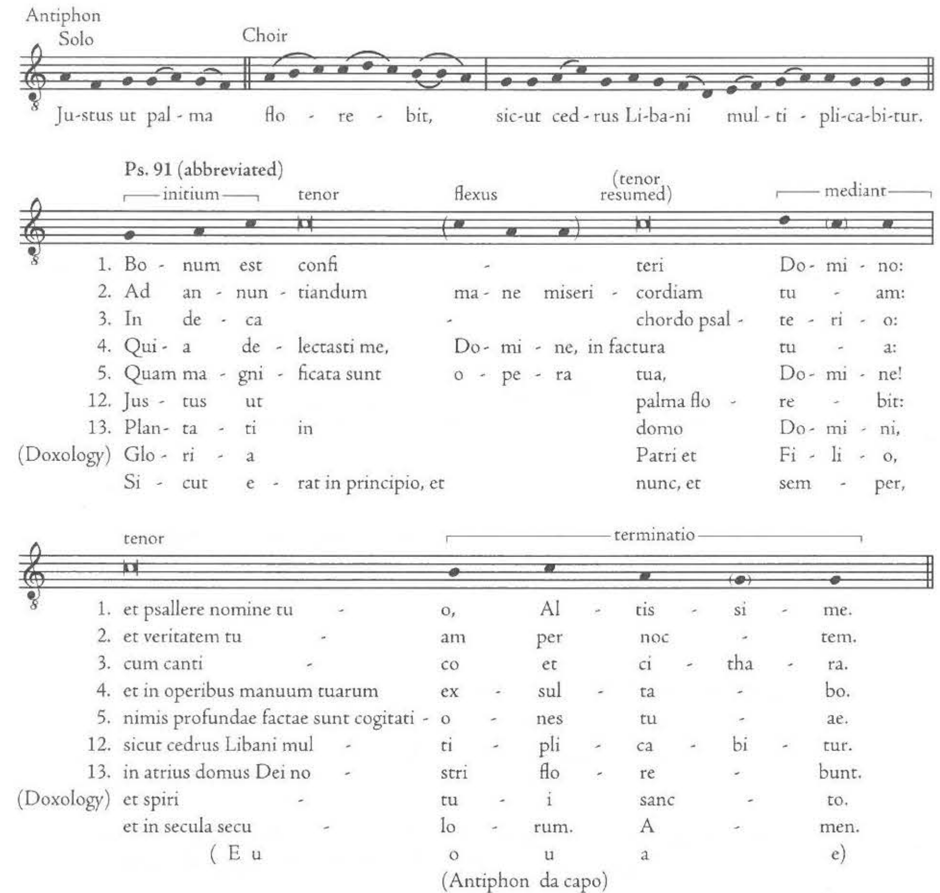
It is time now for some music. Many of the points in the foregoing account of the history and prehistory of Gregorian psalmody, and also something of its many genres and styles, may be illustrated by tracing settings of a single psalm verse through its various liturgical habitats. The twelfth verse of Psalm 91 (according to the numbering in the standard Latin Bible, known as the Vulgate, translated by St. Jerome in the late fourth century) was especially favored in the liturgy, perhaps owing to its vivid similes. It crops up time and again in many contexts, running the full stylistic gamut of Gregorian chant from the barest "liturgical recitative" to the most flamboyant jubilation.

In the "original" Latin the verse reads, *Justus ut palma florebit, et sicut cedrus Libani multiplicabitur*. In the Authorized (King James) Version of 1611, long the standard English translation (in which the parent psalm carries the number 92), it reads, "The righteous shall flourish like the palm tree: he shall grow like a cedar in Lebanon." In its simplest musical form, the verse takes its place in the cursive recitation of the psalm from which it comes, within the weekly monastic office round. In such contexts it is sung to an elementary reciting formula or "tone," each verse alternating in historical practice with an antiphon. In modern, somewhat streamlined practice the refrain sandwiches the entire psalm rather than alternating with every verse. In Ex. 1-1, the psalm is paired with an antiphon consisting of its own twelfth verse, the *Justus ut palma* verse, extracted according to the stichic principle for use in a service commemorating a martyr saint, to whom the sentiments expressed in the text are especially pertinent.

A psalm tone like the one given here is music stripped to its minimum functional requirements as a medium for the exaltation of a sacred utterance. In the example, the tone formula is analyzed into its constituent parts, which function very much like punctuation marks. First there is the intonation (in Latin, initium or beginning), given the first time by a soloist (called the precentor) to establish the pitch. As in a declarative sentence, the intonation formula always ascends to a repeated pitch, called the reciting tone or tenor (because it is held, for which the Latin is tenere; other names for it include repercussa, because it is repeated, and tuba, because it is "trumpeted"). The tenor is repeated as often as necessary to accommodate the syllables of the text: since psalms are prose texts, the number of syllables varies considerably from verse to verse. In a long verse there will be many repetitions of the tenor, lending the whole the "monotone" quality often associated with the idea of "chanting." The longest verses (here, verses 2, 4, and 5) have a "bend" (flexus) as additional punctuation.

The end of the first hemistich is sung to a formula known as the mediant (in Latin, mediatio), which functions as a divider, like the comma or colon in the text. The second hemistich again begins on the tenor, and the whole verse ends with the termination (in Latin, terminatio), often called the cadence because, again as in a declarative sentence, it entails a lowering (or "falling," for which the Latin is cadere) of pitch. Note that at the

EX. 1-1 *Justus ut palma* as antiphon to Psalm 91



end of the psalm, the doxology—the Christianizing tag invoking the Holy Trinity (a notion assuredly unfamiliar to the Old Testament authors of the Psalter)—has been appended. It is treated simply as an extra pair of psalm verses.

Psalm and lection tones like these are very ancient. They carry a whiff of the origins of music, at least in its cultish uses. Singing, however minimal, is numinous; it elevates words out of the context of the everyday. Like the biblical readings themselves, the use of lection tones is a definite point of kinship between Christian and Jewish worship. The Roman psalm tones are mentioned and described in Carolingian service books as early as the eighth century. They were not actually notated until the early tenth century, however, and are not found in the early antiphoners, for which reason they are not part of the "Gregorian" repertory in what we have identified as the strictest, most authentic sense of the term. But the term "Gregorian" is used by now to cover the whole medieval repertory of the Roman church.

Eight psalm tones (of which the one given in the example is listed last in the standard books) are used in the Latin liturgy, plus one called the tonus peregrinus ("migrating tone") because the tenor of the second hemistich is different from that of

the first. The eight-tone system seems to have been borrowed in concept (though not in actual musical content) from that of the Greek (Byzantine) church. Because the music of a psalm tone is so obviously related in its function to that of punctuation, the Gregorian tones (incorporating those used for prayers, as well as psalms and scriptural readings) are often collectively characterized by the word accentus, or "accent," already associated with chant notation in one hypothesis of its origin.

Although the designation accentus seems to have been used in this sense no earlier than the sixteenth century, it is nevertheless very apt, because a psalm sung to a tone is in fact an accentuated or heightened recitation. Sixteenth-century and later writers who use the word accentus in this way contrast it with the word concentus, a Latin word associated with the pleasures of music (it may be translated as "harmony," or "concert," or "choir," or "concord," depending on the context), which denotes the more distinctive and decorative melodies found in antiphons, responds, or hymns.

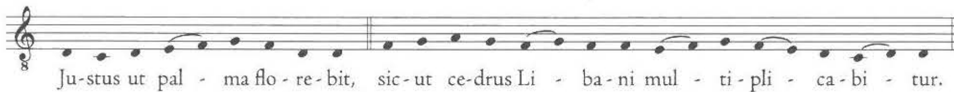
The antiphon in Ex. 1-1 is a modest example of concentus melody. Where the relationship between the text and music in the psalm tone is straightforwardly syllabic (one note to each syllable, the reciting tone accommodating most of them), the antiphon is a moderately neumatic chant, in which nine of the twenty-one syllables in the text carry what were known as "simple" (two- or three-note) neumes. In the figure accompanying Ex. 1-1, the antiphon is printed exactly as it is found in the *Liber responsorialis*, a book of Office chants published in 1895 by the monks of the Benedictine Abbey of Solesmes, who carried out a vast restorative project during the late nineteenth century in which the corpus of Gregorian chant was reedited from its original manuscript sources. The notation they used, called "square" or "quadratic" after the shape of the note-heads, was adapted from a calligraphic style that became prevalent in twelfth-century manuscripts, especially those containing polyphonic music, in which (as will be seen in due course) the various neume shapes often assumed specific—eventually measured—rhythmic values.

As early as the tenth century, neumes were learned from tables in which each shape was given a distinctive name. The two-note ascent over pal-, for example, was called the pes (or podatus), meaning "foot." Its descending counterpart, over -ma, was called the clivis (meaning "sloped"; compare "declivity"). The three-note neumes (grouped, appropriately enough, over a word meaning "flourish") were known respectively as the scandicus (from scandere, "to climb"), the torculus ("a little turn"), and the trigon ("a toss"). The motion opposite to the torculus (i.e., down-and-up) is shown by the porrectus ("stretched"), with its striking oblique stroke: . The pes, clivis, torculus, and porrectus were the basic shapes, corresponding to the acute, grave, circumflex, and anticircumflex accents. They were retained in later notational schemes, where we will encounter them again.

The group of six notes following the antiphon verse, set over the letters E u o u a e (sometimes informally combined into a mnemonic, pronounced "e-VO-vay") shows the ending of the psalm—or rather the doxology, for the letters are the vowels in ". . . seculorum. Amen." The six-note formula is called the differentia, because it tells you which of the different available endings of the psalm tone to employ in order to achieve a smooth transition into the repetition of the antiphon. The differentiae are now given in books, but even today's practicing monks have them down cold and need only glance at the required "evovay" formula in order to sing the psalm from memory (or at most from the written text).

Justus ut palma appears twice more in the Office of Martyrs. At Vespers it also functions as a psalm antiphon, but is sung to a different melody requiring a different psalm tone (Ex. 1-2). And a really minimal setting of the verse functions as a concluding versicle (from the Latin versiculum, "little verse"), sung by the officiant and answered by a congregational response at the end of one of the "lesser hours." The one on *Justus ut palma* comes at the end of none (Ex. 1-3). The extreme simplicity of the versicle illustrates the direct connection between the importance of an occasion and the elaborateness of the music that enhances it.

EX. 1-2 *Justus ut palma* as a Vespers antiphon



EX. 1-3 *Justus ut palma* as a versicle

PSALMODY IN PRACTICE: THE MASS

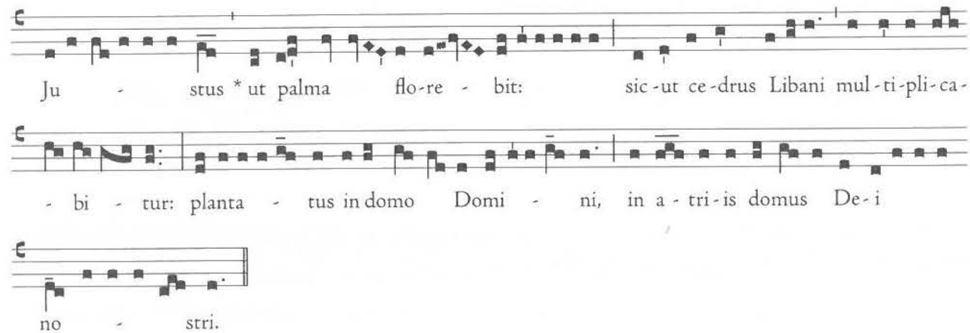
No fewer than four stichic settings of the *Justus ut palma* verse are found in the original Gregorian corpus of "Mass propers," the psalmodic chants for the yearly round of feasts, recorded formulary by formulary in the early Carolingian antiphoners. Like the Office chants, they are more or less elaborate depending on the occasion and the liturgical function they accompany. All of the examples from the Mass are given in square notation, as they are found in the *Liber usualis*, an anthology of the basic chants for Mass and Office, issued by the Benedictine monks of Solesmes for the use of Catholic congregations following the official adoption of their restored version by Papal decree in 1903.

The *Justus ut palma* verse, being an encomium (that is, an expression of praise), is particularly suitable for Mass formularies honoring saints. As an Introit antiphon (Ex. 1-4) it is sung in tandem with the next verse in its parent psalm at Masses commemorating saints who were priests but not bishops (or confessors but not martyrs). Then comes "Bonum est," the opening verse of Psalm 91 (plus the obligatory doxology, given in a space-saving abbreviation), sung to an accentus tone—the vestigial remains of full cursive psalmody such as now survives only in the Office. Being Mass chants, though, both the antiphon and the vestigial verse are considerably more elaborate, indeed rhetorical, than their Office counterparts.

The antiphon has a few compound neumes verging on the melismatic style. The very first syllable is set to a seven-note complex that ends with a long drawn-out, throbbing triple note (*tristropha*). Over *palma* there is a three-note ascent (*salicus*), immediately followed by a *climacus* (cf. "climax"), a three-note descent from a high note (*virga*, meaning "staff" or "walking stick" after its shape), the latter being sung twice for additional emphasis (*bivirga*). The highest note, a full octave above the lowest note (on *ut*), is reached in the middle of a torculus on *-ca-*, which is then coupled with a clivis to produce a five-note complex. The final phrase of the antiphon, *Dei nostri*, returns three times to the lowest note before cadencing on D. Overall, the antiphon thus describes the same graceful, characteristic arclike shape we have already observed in microcosm in the Office psalm tones. Meanwhile, the psalm tone used here, in a festal Mass, is almost as pneumatically ornate as the Office antiphons already examined.

The pair of "alleluia" exclamations that comes between the antiphon and the verse is sung when the saint's commemoration happens to fall during the fifty-day period after Easter known as Paschal Time, the gladdest season of the church year.

EX. 1-4 *Justus ut palma* as Introit



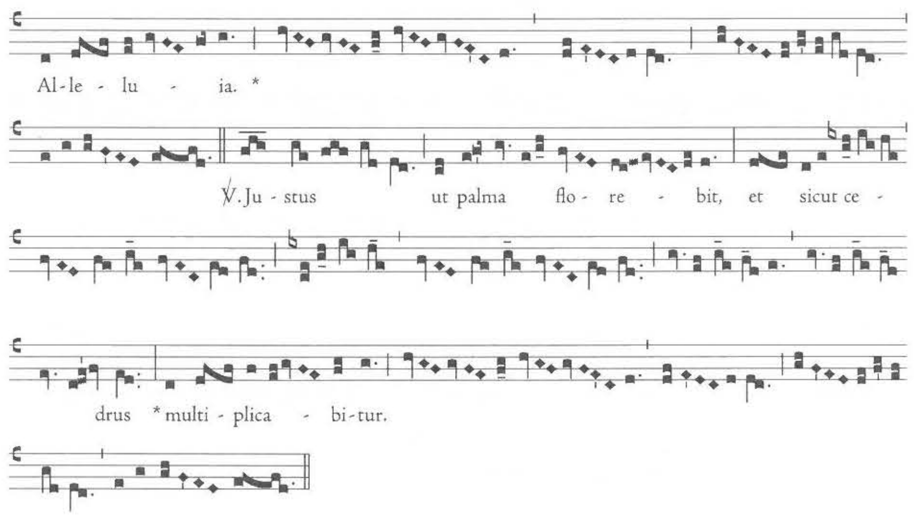
The Offertory and the Communion, the psalmodic chants of the Eucharist, have by now been entirely shorn of their psalm verses, which in the case of the Offertory were once very elaborate indeed. They are sung as free-standing antiphons amounting to autonomous stichic "arias" for the choir. The Offertory on *Justus ut palma* is sung at a Mass commemorating a saint who was a "Doctor of the Church," especially distinguished for wisdom and learning. (Many of the early Church Fathers whose pronouncements have been quoted in this chapter belong to this category.)

The setting (Ex. 1-5) is even more ornate than the foregoing example: each of the words set to compound neumes in the Introit (*justus, palma, multiplicabitur*, plus the Paschal alleluia) now carry full-fledged melismas. In addition, the use of what are called ornamental or liquescent neumes implies a particularly expressive manner of singing, though its exact nature is uncertain. The third note over *justus*, for example, as well as the second note over *cedrus*, has a "trembling" shape called *quilisma* (from the Greek *kylio*, "to roll"), which may denote a trilling effect or a vibrato. The word *in* is set to a *clivis liquescens* or *cephalicus*, which involved an exaggerated pronunciation of the "liquid" consonant *n*.

EX. 1-5 *Justus ut palma* as Offertory

Finally, settings of the *Justus ut palma* verse function as "lesson chants," sung between the scripture readings that cap the Synaxis portion of the Mass, at a time when there is little or no liturgical action going on. Of all the chants in the Mass, these are the most florid, because more than any other they are meant as listener's music, filling the mind with the inexpressible joy of which St. Augustine wrote so eloquently. *Justus ut palma* is found both as a Gradual, following the Epistle, and as an Alleluia verse (Ex. 1-6), preceding the Gospel. The rhapsodic, essentially textless, fifty-one-note *jubilus* that follows the word "alleluia" in the latter setting (sung at a Mass commemorating a saint who was an abbot, or head of a monastery) is repeated note for note at the end of the verse, showing an apparent concern for ideal musical shaping that is mirrored on a smaller scale by the internal repetitions (representable as **aabb**) that make up the internal melisma on the word *cedrus*. The lesson chants are responsorial chants, in which a soloist (*precentor*) alternates with the choir (*schola*). At the beginning, the precentor sings the word "alleluia" up to the asterisk, following which the choir begins again and continues into the jubilus. The same precentor/schola alternation is indicated in the verse (given mainly to the soloist) by the asterisk before *multiplicabitur*. The choral alleluia is repeated like an antiphon after the verse, giving the whole a rounded (ABA) form.

EX. 1-6 *Justus ut palma* as Alleluia



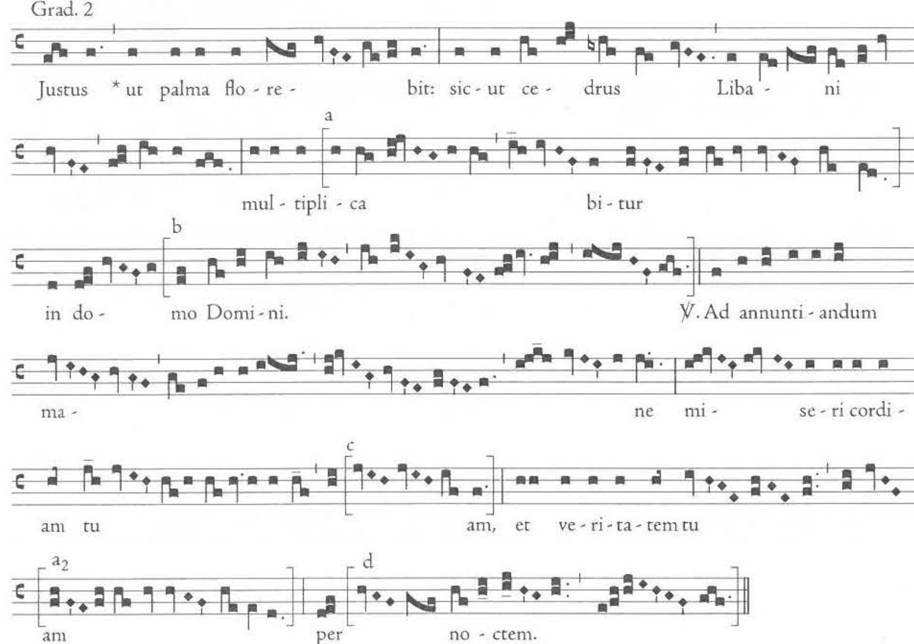
EVIDENCE OF "ORAL COMPOSITION"

The repetitions that give the Alleluia setting its striking shape are memorable not just for the listener, but also for the performer. Such things were, in fact, a vital memory aid in an age of oral composition and show the relationship between this extraordinarily ornate, mystically evocative composition and the simple psalm tone with which our survey of chant genres began. However protracted and however beautiful, the jubilation-melismas served a practical, syntactical purpose as well as a spiritual or esthetic one. Like the mediant and termination formulas in the tones, albeit at a much higher level of expressive artistry, they mark endings and give the precentor and the schola their cues.

Repetitions of this type not only link the parts of individual chants, they link whole chant families as well. Ex. 1-7 contains two Graduals, each consisting of a melismatic respond and an even more melismatic verse for a virtuoso cantor. The respond in the first of these Graduals, from a formulary assigned in Carolingian times to the commemorative feast of St. John the Baptist, is a setting of the *Justus ut palma* verse. The second (Ex. 1-7b) is the very famous Easter Gradual, in which the text consists of two verses from Psalm 117, one functioning as respond, the other as soloist's verse:

> *R: Haec dies, quam fecit Dominus: exsultemus, et laetemur in ea.*
> *V: Confitemini Domino, quoniam bonus: quoniam in saeculum misericordia ejus.*
> [Ps. 117, 24: This is the day which the Lord hath made: we will rejoice and be glad in it.
> Ps. 117, 1: O give thanks unto the Lord, for He is good: because his mercy endureth for ever.]

EX. 1-7A *Justus ut palma* as Gradual



EX. 1-7B *Haec dies* (Easter Gradual)

It is easy to show (here, by bracketing them) that these two chants draw heavily upon a shared fund of melodic turns. In fact a whole family of Graduals, numbering more than twenty in all, have these formulas in common: besides the two given here, they include the Graduals for the Christmas Midnight Mass (to the words *Tecum principium*, "With Thee in the day of Thy power") and the funeral Mass, called the Requiem after the opening word of its Introit, which happens to recur in the Gradual (*Requiem aeternam*, "Eternal rest"). Again, what is striking is that the shared formulas are found most frequently at initial and (especially) cadential points, and that internal repetitions regularly occur to accommodate lengthier texts. In other words, these extremely elaborate chants still behave, under their flowing melismatic raiment, very much like the psalm tones they may once have been.

How did the one evolve into the other? While we will never find a contemporary witness to musical developments that took place before there were any means of documenting them, an answer to this question is nevertheless suggested by recent research into the practices of more recent, in some cases still active, oral traditions of church music. Nicholas Temperley, investigating the history of what has sometimes been called "the Old Way of Singing" in English parish churches of the seventeenth century and New England Congregational churches of the eighteenth, and the "surge songs" of black churches in the American south, noted a pattern.[7] Musically unlettered or semilettered congregations that sing without professional direction over long periods of time tend to develop a characteristic style: "the tempo becomes extremely slow, the sense of rhythm is weakened; extraneous pitches appear, sometimes coinciding with those of the hymn tune, sometimes inserted between them." Wesley Berg, a Canadian scholar working with Mennonite communities in Western Canada, has corroborated the process by direct observation.[8]

What both scholars describe is the transformation, over time, of simple syllabic melodies into ornate, melismatic ones. (And the point about rhythmic weakening jibes tellingly with the notorious nonmetrical rhythm of the chant, about which little is known and about which, therefore, many strong opinions are maintained.) In New England, the process was thought to be one of corruption. Professional singing masters, armed with notated hymnbooks, sought to counteract the tendency by training their congregations to be not only literate but literal-minded in their attitude toward written texts. In a wholly oral age, when alternative methods of transmission were not available, the process of transformation was more likely seen as desirable, since it produced an ever more artistic, "skilled" product. In the context of the evolving Christian liturgy, degrees of melismatic elaboration served as a means of differentiating types of chants as well as liturgical occasions on the basis of their relative "solemnity." As we will see in the next chapter, moreover, there is evidence that the Gregorian chant itself continued to develop melismatic embellishments in parts of Europe where a relatively fluid oral culture seems to have continued, perhaps for centuries, after the Franks had begun relying on notation as a fixative.

It used to be thought that the large amount of shared material within chant families reflected a "patchwork" process of composition, called *centonization* (after the Latin *cento*, "quilt"). Peter Wagner, one of the pioneering historians of early Christian music, compared centonized chants to articles of jewelry in which prized gems have been selected to receive "a splendid mounting, an ingenious combination, and a tasteful arrangement."[9] Today, scholars prefer a different analogy or model: instead of a fund of individual memorized formulas from which chants are assembled on the basis of artistic ingenuity and taste, one imagines a process of elaboration from a repertory of simple prototypes for various liturgical genres and classes.

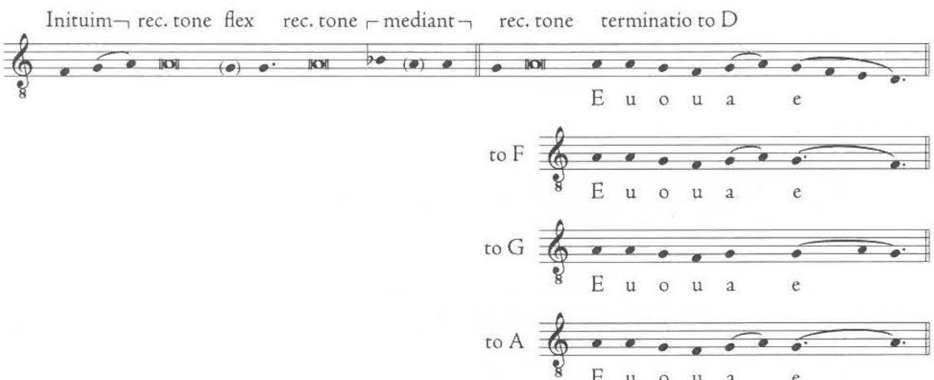
The shared formulas found in the Graduals we have been comparing, for example, are found only in Graduals. Another type of chant that is comparably formulaic in its melodic content is the *Tract*, a long, sometimes highly melismatic psalm setting that is sung in place of the Alleluia during penitential seasons such as Advent and Lent, when the joyous ejaculation *alleluia*—Hebrew for "Praise God!"—is suppressed. Tracts come in two mutually exclusive formula-families, and their characteristic turns are not found in any other chant genre.[10]

A fund of shared melodic turns characterizing the chants of a given functional type, or those proper to a certain category of ritual observance, is exactly how the term *mode* is defined in its earliest usages. The concept of mode as formula-family is still prevalent in the Greek Orthodox (Byzantine) church, where the liturgical singing follows what is known as the *oktoechos*, an eight-week cycle of formulaic "modes" (*echoi* in Greek).

Our more recent concept of mode, based on that of a scale, and defined mainly in terms of its final note, fits the Gregorian repertory poorly. (We have already seen, in fact, that Gregorian psalm tones often have a variety of potential final notes, the *differentiae*—see Ex. 1-8.) The concept of mode as a function of scale and final was originally the product of Frankish and Italian music theory of the tenth and eleventh centuries, in which an attempt was made to organize the chants of the Roman church

according to the categories of ancient Greek music theory, which was well known from treatises, even if practical examples of ancient Greek music are virtually nonexistent. (As we shall see, the chants composed by later Frankish musicians who had been trained according to this theory conform much more closely to our accustomed idea of what a mode is.)

EX. 1-8 *Differentiae* of the first psalm tone



WHY WE WILL NEVER KNOW HOW IT ALL BEGAN

Yet even if the ancient Greek catalogue of lyre tunings was conceptually foreign, hence irrelevant, to the modal structure of Gregorian chant, the attempt to codify medieval modal theory according to Greek ideas of order was not wholly misplaced. The Greek system and the Gregorian corpus did have one thing self-evidently in common. They both employed what some scholars now call the "diatonic pitch set," the field of pitches and pitch relationships reducible to a specific arrangement of tones and semitones ("whole steps" and "half steps"), of which the familiar major and minor scales are among the possible representations.

When staff notation was introduced in the eleventh century, it made tacit yet explicit provision for that arrangement. There is no way of telling the diatonic half steps (between B and C and between E and F) from the whole steps on the basis of their appearance on the staff; from its very beginning, in other words, the staff was "prejudiced" to accommodate the two different sizes of step-interval as musicians had from time immemorial habitually "heard" and deployed them.

Thus there is no point in inquiring about the historical origins of the diatonic pitch set, our most fundamental musical possession. We will never know them. We can do no better than the legends by which the Greeks sought to explain the origins of their musical practice. In one of these, related by Nicomachus in the second century CE, Pythagoras, the reputed inventor of music, heard beautiful sounds coming unexpectedly out of a blacksmith's shop. Weighing the anvils the smiths were striking, he discovered the harmonic ratios governing the perfect ("Pythagorean") consonances, as well as the whole step. Laying these intervals out on a staff, and adding the two extra tones that are obtained when the Pythagorean complex is transposed to begin on each

FIG. 1-8 Illustration from a thirteenth-century manuscript of a famous music treatise by John of Cotton, now housed at the Bavarian State Library in Munich, which shows Pythagoras in the blacksmith shop, measuring the harmonic consonances. The inscriptions read, *Per fabricam ferri mirum deus imprimit* ("By means of a smithy God has imparted a wonder") and *Is Pythagoras ut diversorum/per pondera malleorum/perpendebat secum quae sit concordia vocum* ("It was this Pythagoras who, by the weights of the various hammers, worked out the consonances for himself"). The lower panel shows a monochord, a more "modern" device for tone measurement, and a harp, laterally strung like a lyre, which represents music's power of *ethos* or moral influence.

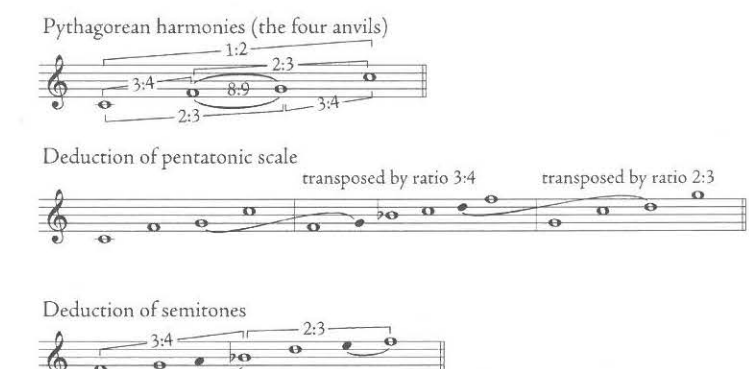
of its own constituent pitches, we may arrive at a primitive five-note ("pentatonic") scale. Plugging the "gaps," we find that we have "discovered" the half steps (see Ex. 1-9a).

Another way of deducing the diatonic pitch set from properties of acoustic resonance is to generate it by fifths radiating outward from a central tone. (If D is chosen for this demonstration the whole complex may be represented on the staff without the use of accidentals.) A trace of this deduction survives in the names of our scale degrees, "dominant" being the name of the tone produced by the first fifth "up," and *sub*dominant ("underdominant") being the name of the tone produced by the first fifth "down" (see Ex. 1-9b).

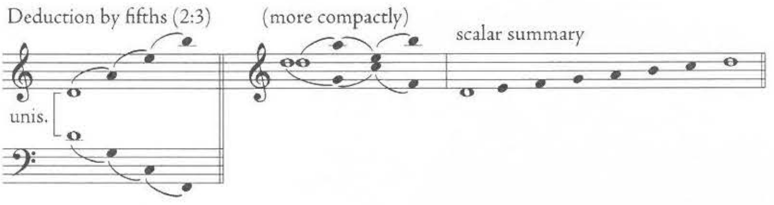
But these deductions are all long after the fact and have nothing to do with history. They are rationalizations, designed to show that our familiar musical system is "natural." (Efforts to deduce the diatonic pitch set from the so-called natural harmonics, or "overtones," are especially ahistorical, because the overtone series was not discovered and described until the eighteenth century.) Yet if the immemorial diatonic pitch set is to be understood as "natural," it must be understood in terms not only of physical but of human nature. The historical evidence suggests that our diatonically apportioned musical "space," while grounded in acoustic resonance, may also be the product (or one of the possible products) of a physiological predisposition governing "musical hearing," that is, our discrimination of meaningful pitch differences and pitch relationships.

Where actual musical practice is concerned, the relevant historical fact is that people have evidently internalized the diatonic pitch set—carried it around in their heads as a means of organizing, receiving, and reproducing meaningful sound patterns—as far back as what is as of now the very beginning of recorded musical history, some three and a half millennia ago.

EX. 1-9A Deduction of the diatonic pitch set from the Pythagorean consonances



EX. 1-9B Deduction of the diatonic pitch set by fifths



BEGINNINGS, AS FAR AS WE KNOW THEM

This new "beginning" was established in 1974 when a team of Assyriologists and musicologists at the University of California at Berkeley managed to decode and transcribe the musical notation on a cuneiform tablet dating from around 1200 BCE that had been unearthed on the site of the ancient Babylonian city of Ugarit, near Ras-Shamra in modern Syria.[11] The tablet contained a hymn, composed in Hurrian, a dialect of the Sumerian language, to the goddess Nikkal, the wife of the moon god. The music can be read as being set for a solo voice accompanied homorhythmically by a harp or lyre, thus testifying to a practice of polyphonic composition many centuries before the rise of Christian chant. Most remarkable is how unremarkable this earliest preserved piece of music now seems: it consists of harmonic

FIG. 1-9 Harpist in the garden of Sennacherib, shown in a neo-Assyrian bas-relief from the palace at Niniveh, seventh century B.C.E., 500 years later than the earliest musical notation, of similar geographical provenance, to have been successfully transcribed in modern times. That piece, described in the text, could have been performed by one or both of the figures represented here.

intervals recognized as consonant in most Western practice, and is easily notated on the normal Western staff because it conforms to the same disposition of diatonic whole and half steps used in Western music since the start of its continuous written tradition (Ex. 1-10). Like the Gregorian chant, the Babylonian melody conforms to the basic contents of the familiar diatonic pitch set, though not to any of our modern ways of patterning it.

EX. 1-10 First phrase of Hurrian cult song from ancient Ugarit, transcribed by Anne Draffkorn Kilmer

(Fragmentary and untranslatable text omitted.)

Pretty much the same may be said about the handful of ancient (if relatively "late") Greek melodies that happen to survive in decipherable practical sources, as well as the earliest Greek Christian music that grew more or less directly out of prior pagan practice.[12] The earliest such Greek remnant, the first of two surviving Delphic Hymns, or paeans to Apollo sung by a priestess at the Delphic oracle's abode, was set down around 130 BCE on a now only partly legible stone tablet that is kept at the National Archaeological Museum in Delphi. It employs a learned and artificial style, called the "chromatic [i.e., colorful] genus" by the Greeks, in which some of the strings of the lyre were tuned low in order to provide two semitones in direct succession. (Hence the adaptation of the word "chromatic" to denote the much later Western practice of inflecting scale degrees by semitones; Greek theorists also describe an "enharmonic" genus in which the semitones could

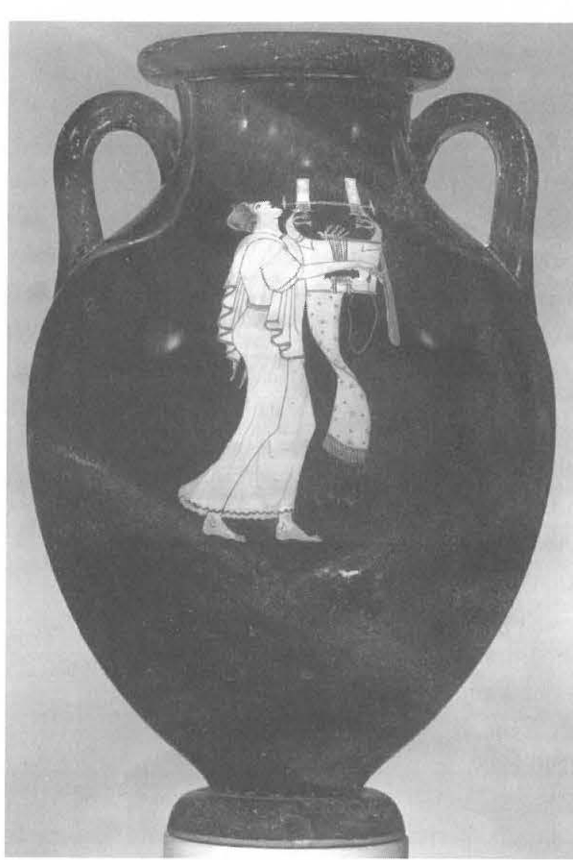


FIG. 1-10 Attic Greek amphora (jar), ca. 490 B.C.E., showing someone singing to a lyre. Greek music theory was mainly confined to prescribing tunings for the lyre, in three *genera*, or types: diatonic, chromatic, and enharmonic. These words have survived in modern musical terminology, although not with precisely the same meanings.

be replaced by quarter tones.) Ex. 1-11a shows the second half of the melody, in which the embellishing "chromatic semitones" are most prevalent, adapted from a somewhat speculative transcription made about eighty years ago by the French archaeologist Théodore Reinach: it reproduces the melodic pitches exactly as "alphabetically" notated in the source but infers the meter and rhythm from that of the text.

Ex. 1-11b contains the earliest surviving artifact of actual Christian service music, a fragment from the close of a Greek hymn to the Holy Trinity, notated on a papyrus strip during the fourth century CE and discovered in 1918. The hymn is probably a translated extract from the liturgy of the Syriac Christian church. Although we cannot be certain (since it is our only example), it seems to be built up out of a diatonic formula-family. It is the earliest surviving representative, by six or seven centuries, of the Greek-texted music of the Orthodox (that is, official) church of the Eastern Roman Empire, known as the Byzantine Empire after Byzantium (or Constantinople), its capital until 1453.

EX. 1-11A Second stanza of the First Delphic Hymn, transcribed by Egert Pöhlmann and Martin L. West

Behold Attica's great city, which by the prayers of the warrior maiden Tritonic dwells in a plain inviolate! On the holy altars Hephaistos the fire god burns the thighs of young bulls, while the fragrance of Arabia is wafted to Olympus; and the flute in clear, shrill notes pipes its song with varied tunes; and the sweet-voiced lyre of gold strikes up the hymns.

Unlike the Western Roman church, which came to cultivate the traditional prose-poetry of the Psalter as its main sphere of musical creativity, the Eastern Orthodox church emphasized hymnody, newly composed "songs with praise of God" in metrical verse. This repertory, known as Byzantine chant, consists of hymns in many liturgical genres or categories ranging from the single-stanza *troparion* (for the Vigil, or Night Office) and *sticheron* (for the day services), which attach themselves to psalms in a

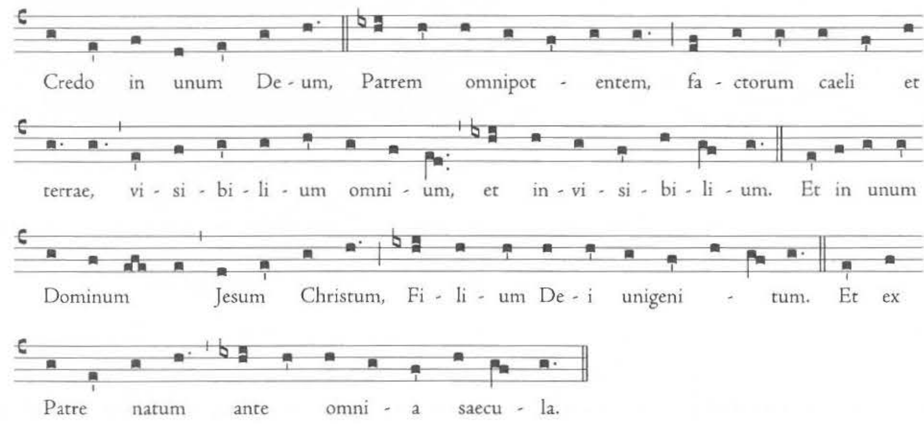
EX. I-11B Fourth verse of a proto-Byzantine Hymn to the Trinity, transcribed by E. Pöhlmann and M. West

manner matching that of the Gregorian antiphon—through the *kontakion* (from the Greek for "scroll"), an elaborate metrical sermon in as many as 30 stanzas—to the *kanon* (from the Greek for "rule"), a magnificent cycle of nine *odes*, each based on a different metrical prototype or model stanza called a *hiermos*.

One of the oldest melodies still in active liturgical use is the one called "Credo I" in modern chant books (Ex. 1-12). It is a setting of the Nicene Creed: a recitation of articles of Christian faith that was adopted in the fourth century, originally for use in the baptism ceremony. The Creed eventually joined the Eucharistic liturgy, sung first in the Eastern churches, later (sixth century CE) in Spain and in Ireland. It was adopted by the Franks in 798 and was formally incorporated into the "universal" (or "Catholic") Latin Mass by Pope Benedict VIII in 1014, positioned between the Gospel reading and the Offertory as the divider between the synaxis and Eucharist services.

Despite its late adoption, the formulas to which this venerable text is most often sung are demonstrably archaic and demonstrably Greek. Its formula-family, with its

EX. I-12 Beginning of "Credo I"



I believe in one God, Father almighty, maker of heaven and earth and of all things visible and invisible. And in one Lord Jesus Christ, the only begotten Son of God, born of the Father before all ages.

regular use of B-flat and E to surround the reciting tone on G, and its final cadence on E, is a rather exotic specimen within the Gregorian corpus. (But compare the Offertory on *Justus ut palma* in Ex. 1-5.) Yet although it seems to emphasize the odd interval of a diminished fifth, the melody nevertheless fully conforms to the intervallic structure of the diatonic pitch set. Transposed up a fifth or down a fourth it could be accommodated on the staff without accidentals. (The reason why it is not notated at that pitch level in the Gregorian sources will become clear in the next chapter.)

As these very old melodies suggest, there are many ways of patterning and embellishing the diatonic pitch set, giving rise to any number of historical, culture-bound musical styles. Tracing their development will be one of this book's primary tasks. Yet history also suggests that the pitch set as such—the raw material, so to speak, that precedes patterning—may be a natural "datum," given to a degree in external nature (the physics of sound) but, more relevantly, in human nature (call it the physiology of sound cognition). Within the tradition of Western music, there may be cognitive universals that, as in language, underlie and undergird all cultural practices, and (the downside, some may feel) set limits to them.

New Styles and Forms

Frankish Additions to the Original Chant Repertory

LONGISSIMAE MELODIAE

Amalar (or Amalarius) of Metz, an urban cleric and a disciple of Alcuin, served Charlemagne and his successor Louis as both churchman and statesman. He was one of the supervisors of the Carolingian chant and liturgy reform, and virtually our sole witness to it. After a diplomatic sojourn in Rome in 831, Amalar spent the remaining decades of his life compiling liturgical books, to which he added commentaries replete with information about the church singing he had heard, which he wished to see transplanted to Frankish soil. Although Amalar did not use neumes (possibly because he lived just too early to have had the option of using them), his descriptions of the ways in which the Roman chant was adapted to the use of the Franks are uniquely detailed and vivid.

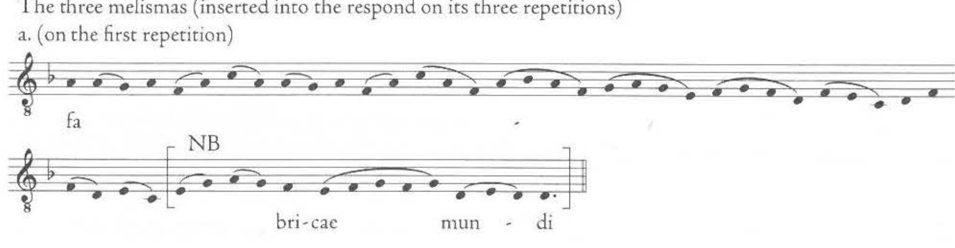
One thing we learn from Amalar is that the Roman cantors he observed had taken one of their real showpieces — a *neuma triplex*, a huge threefold melisma from a matins responsory commemorating St. John the Baptist's day (December 27) — and transferred it back to Christmas, where its festive jubilation seemed even more appropriate. This practice was part of a general trend, which Amalar wanted to abet, toward adorning the liturgy with special music. Christmas, liturgically the most elaborate of days (on which, for example, not one but three Masses were sung: at midnight and at dawn as well as at the usual hour between terce and sext), was of course especially favored. The *neuma triplex* was available for insertion, however, wherever it was wanted. In different sources it is found associated with the feast of the Holy Innocents and with the feasts of various saints as celebrated, with special pomp, in their home diocese.

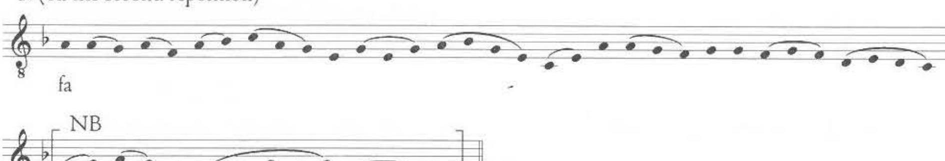
The third and most sumptuous of the *neuma triplex* melismas, with its seventy-eight notes, may be the longest *melodia*, or stretch of textless vocalizing, in the entire repertory of medieval chant. In Example 2-1, the concluding words (*fabricae mundi*, "of the structure of the world") from *Descendit de caelis* ("He descended from Heaven"), the crowning responsory from Christmas matins, are given first in their "normal" form, then with the *neuma triplex* melisma as eventually written down in staff notation about three centuries after Amalar described it. (We can assume that it still pretty much resembles the eighth-century melody Amalar described because it concords well with unheighted neumes in much older manuscripts.)

Amalar enthusiastically endorses the practice of interpolating such *neumae* or melismas into festive chants, in keeping with the old idea of "jubilated" singing. Noting that in its original context (the feast of St. John the Baptist) the triple melisma fell on the word *intellectus*, which he interprets to mean an ecstatic or mystical kind of "understanding" beyond the power of words to convey, Amalar exhorts monastic musicians that "if you ever come to the 'understanding' in which divinity and eternity are beheld, you must tarry in that 'understanding,' rejoicing in song without words which pass away."[1]

EX. 2-1 *Neuma triplex*

And the light, the glory of the universal structure of the world, will go out through the golden gate.





This passage from Amalar recalls the famous words in which St. Augustine, five hundred years earlier, had extolled the "jubilated" singing of his day, associated by the time of Amalar chiefly with the Mass Alleluia. And sure enough, Amalar writes enthusiastically of another Roman practice, that of replacing the traditional *jubilus*, the melisma on the "-ia" of "Alleluia," with an even longer melody, which he describes as "a jubilation that the singers call a *sequentia*," presumably because of the way it followed after the Alleluia chant.[2]

That the Franks enthusiastically adopted the practice of adorning their service music with ever lengthier *melodiae* we learn from Agobard of Lyons, another ninth-century ecclesiastical observer, who condemned what Amalar endorsed. From childhood to old age, Agobard complained, the singers in the schola spent all their time improving their voices instead of their souls, boasted of their virtuosity and their memories, and vied with one another in melismatic contest. The *sequentia* repertoire was the tamed and scripted issue of these frantic oral engagements.

PROSA

Like the jubilus itself, the early *sequentia* vocalises—sung on the word "Alleluia" but so melismatic as to be virtually textless—had many internal phrase repetitions designed to make them easier to memorize. Another memory aid employed by Frankish singers was of far-reaching artistic significance: they added words to melismatic chants that turned them, perhaps paradoxically, into syllabic hymns. This led to a fantastic flowering of new devotional song that developed over three centuries and reached its peak in twelfth-century France.

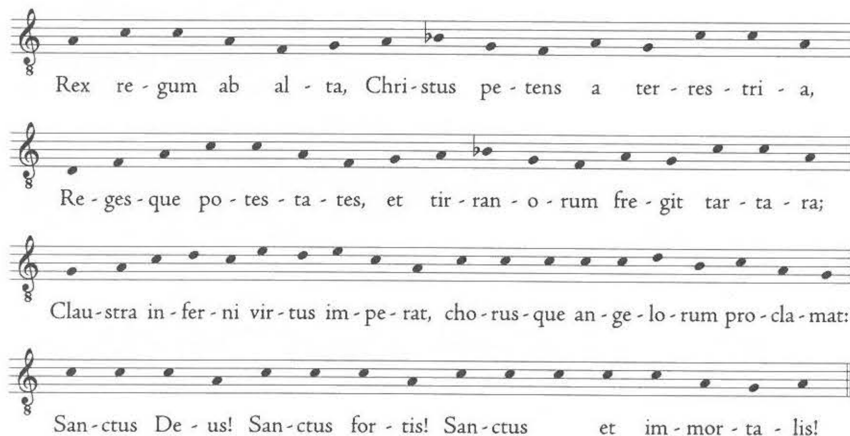
Its beginnings are what concern us now. Amalar's *neuma triplex* can serve as our starting point. As its surviving sources attest, it begat several little prose poems, or *prosulae*; compare the pair in Example 2-2 with the climactic third melisma in Ex. 2-1.

The texts are in prose (or "art-prose" as it has been called, since its diction is very high-flown) because the original melody, like most melismatic chants, is rhythmically rhapsodic and irregular. (The use of prose was nothing new, of course; the psalms themselves are examples of art-prose.) But the melody's one regularizing feature—the use of a repeated phrase at the outset (disguised by the interpolation of a pair of low notes)—lends the texted version a slight suggestion of strophic or "couplet" form. (In strophic form every line of text is set to the same melody; in couplet form the melody changes after every pair of lines.) Also note parenthetically the interpolated "key signature" of one flat in Ex. 2-2a. This was not part of the original notation, but reflects the way we assume any medieval singer would have sung a melody in which B immediately preceded or followed an F, or in which F and B described the outer limits of a melodic "turn." (The augmented fourth, not recognized by the Frankish music theory we will shortly be investigating, was adjusted to the perfect fourth in practice long before it was "prohibited" in theory.)

A similar underlaying of a prose text or *prosula* to a preexisting melisma adorns a famous chant we met in the previous chapter. The eleventh-century Gradual of St. Yrieux, which contains elaborated versions of the Mass propers, has what looks like

EX. 2-2A *Prosulae* to the *neuma triplex, Facture tue*

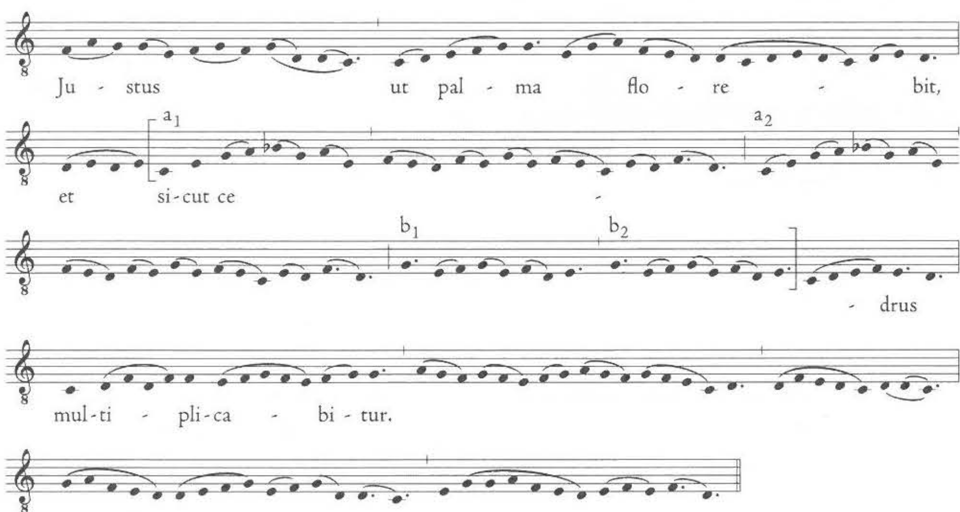
EX. 2-2B *Prosulae* to the *neuma triplex, Rex regum*



King of Kings on high, Christ, rising from earth,
overcomes princes and potentates, and the powers of Hell;
Good conquers the infernal regions, and the choirs of angels sing:
Holy God! Holy and Mighty! Holy and immortal!
(Trans. Richard L. Crocker)

a syllabic version of the Alleluia *Justus ut palma*: an entire poem is interpolated into the text of its verse to correspond with the notes of the long melisma on "cedrus." As we may recall from Ex. 1-6, that melisma is distinguished by regularizing internal repetitions that can be represented as **aabb**. When the prose text is underlaid to the melisma, the resulting prosula has the appearance of a poem in couplets (pairs of lines set to the same tune). As we shall see, paired verses are characteristic of many medieval chants. We may be witnessing the procedure in its embryo (compare Ex. 2-3 with Ex. 1-6).

EX. 2-3 Prosulated version of Alleluia, *Justus ut palma*



An early witness to the practice of "prosulation"—as good a term as any for the interpolation of syllabic texts into melismatic tunes—is Notker Balbulus (Notker the Stammerer, d. 912), a monk at the East Frankish monastery of St. Gallen, already known to us as Charlemagne's first biographer. In the introduction to his Book of Hymns (*Liber hymnorum*), which dates from about 880, Notker recalls that in his youth he learned the practice from a monk who had escaped from the West Frankish abbey of Jumièges (near Rouen in northwestern France), after it had been laid waste by marauding "Normans" (that is, Vikings).[3] This would have been in 852, about twenty years after Amalar had first described the sequentia and promoted it among the Franks. This monk, Notker tells us, had with him an antiphoner in which some *sequentia* melismas had been "prosulated." Notker, so he tells us, leapt at this device for making extra-long vocalises (*longissimae melodiae*, he calls them) memorable, and went on, so he boasts, to invent what we now call the *sequence*.

SEQUENCES

We now use the English word "sequence," derived from the Latin *sequentia* (or, sometimes, "prose," derived from the Latin *prosa*) to denote not the jubilus-replacing melisma itself but the syllabic hymn that (as Notker tells us) was originally derived from it by matching prose syllables to its constituent notes. The sequence eventually

FIG. 2-1 Notker Balbulus, a ninth-century monk from the Swiss monastery of St. Gallen, shown in an illumination from a manuscript probably prepared there some 200 years later. He looks as though he is cudgeling his brain to recall a *longissima melodia*, as he tells us he did in the preface to his *Liber hymnorum* (Book of hymns), which contains some early examples of prosulated melismas known as sequences.

became a canonical part of the Mass, on a par with the Alleluia that it followed and the Gospel reading that it preceded. It is one of the indigenous Frankish contributions to the evolving "Roman" liturgy, and Notker (despite the studied modesty of his diction) may have exaggerated his role in its creation.

Also evidently exaggerated in his telling is the dependency of the sequence, as Notker and others actually practiced it in the late ninth century, on the earlier *sequentia* described by Amalar. Only a handful of surviving sequences (out of the thirty-three in Notker's book, only eight) can be linked up with a known *sequentia* melisma. By the time Notker completed his book, the sequence had already matured into a substantial composition, fresh in both words and music and novel in style, that was sometimes (but far from always) modeled on a liturgical Alleluia melody. It is of course possible that a lost or unrecorded *sequentia* lurks behind each of Notker's "hymns." But to assume that this is the case would be to confuse the origin of the genre with the origin of each individual specimen (as if every symphony were assumed to be an operatic overture because, as we will learn later, the earliest ones were). That kind of false assumption about origins is known as the "genetic fallacy." To illustrate the early sequence we can examine two specimens from Notker's own *Liber hymnorum*, reminding ourselves that Notker himself was able to notate only the texts of his sequences; the melodies come from later manuscripts that may or may not transmit them exactly as Notker composed or adapted them in the ninth century. *Angelorum ordo* (Ex. 2-4a) represents the earliest stage, a simple prosulated *sequentia* melisma that belongs to the Alleluia *Excita Domine* (third Sunday in Advent). It conforms to Notker's description of how the sequence was born. The little melodic repetitions are of the kind we have already encountered in many melismatic chants.

Altogether different is *Rex regum* (Ex. 2-4b), a mature sequence that happens to share its text incipit with one of the items in Ex. 2-2. Its opening melodic phrase is artfully derived from the Alleluia *Justus ut palma* (Ex. 1-6); there are other similarities between the two melodies as well. The sequence may thus have been meant to link up with that particular Alleluia (sung at St. Gallen, Notker's monastery, at the Mass commemorating St. John the Baptist), but there is no reason to suppose it would have been limited to that use. The melodic resemblance being approximate rather than exact, it has effect of an allusion: an honorific, like those in the text, that might compliment

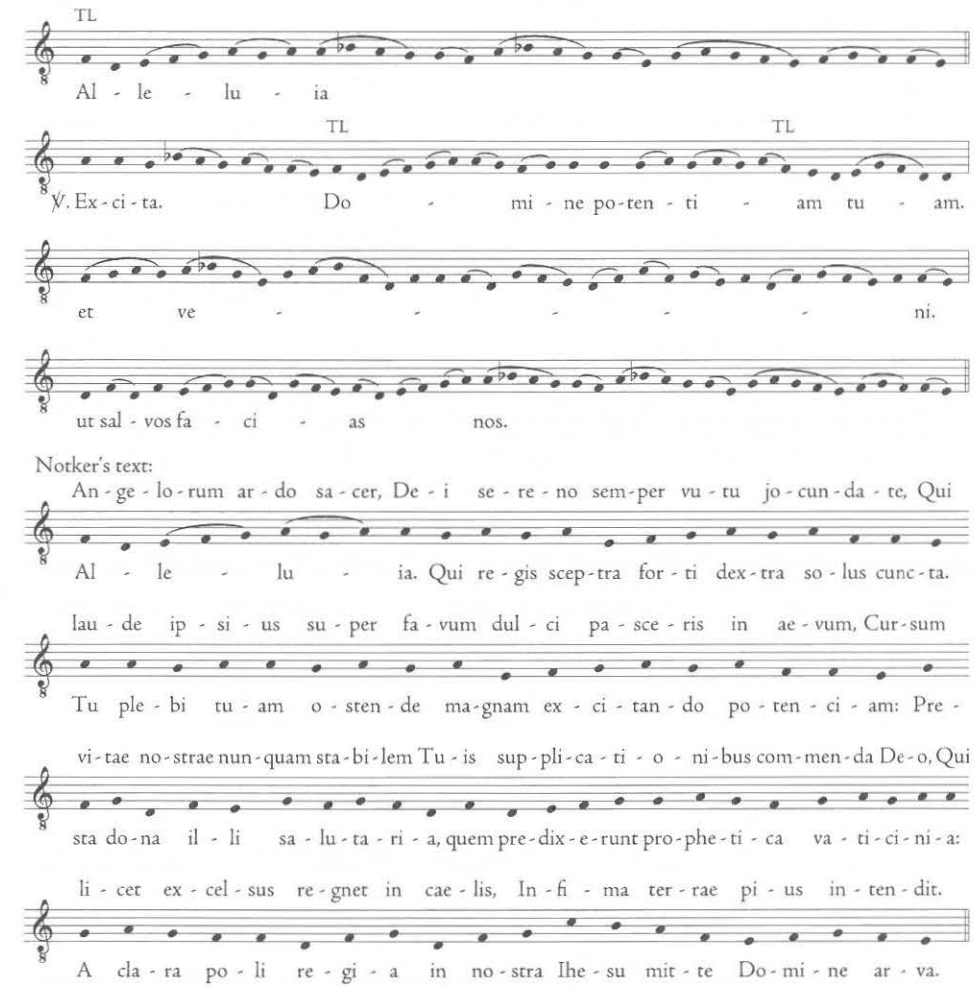
any distinguished churchman. In any case, the reference to *Justus ut palma* is not in this case the automatic result of an adaptive process but a deliberate artistic touch, replete with a couple of neumes that in this context suggest flourishes.

Thereafter, the sequence proceeds in strictly syllabic couplets, successive pairs of lines sung to repeated portions of the melody. (In sequences of a later date, when texts in rhymed verse replaced the earlier "prosa" type, the couplets are often called "paired versicles.") There is no preexisting *sequentia* melisma with such a regular structure, but it would remain standard for sequences for the next three hundred years. That structure, which begins to suggest strophic repetitions, may be the reason why Notker called his compositions "hymns."

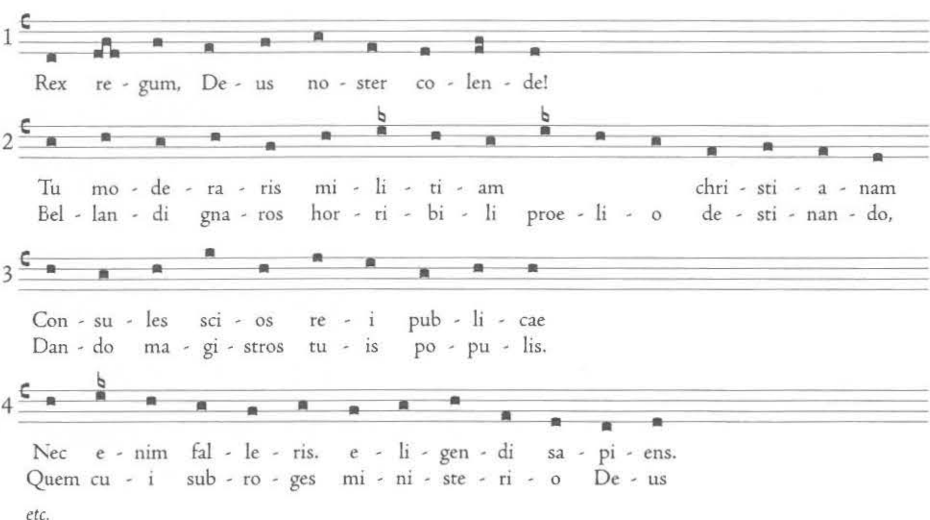
HOW THEY WERE PERFORMED

Even greater regularity, and even greater independence from preexistent models, can be seen in *Rex caeli* (Fig. 2-2; its first five lines are transcribed in Ex. 2-5), a composition

EX. 2-4A Sequence by Notker Balbulus, *Angelorum ordo*



EX. 2-4B Sequence by Notker Balbulus, *Rex regum*



of such sophisticated, artful shape that its status as a sequence has been questioned. (So let's call it a sequence-type hymn.) Unlike most early sequences, it is structurally "rounded" on several levels. It lines are arranged not only in couplets but occasionally in quatrains—groups of four successive lines sung to the same melody. The melody of the first couplet recurs in the fourth, and the whole series of seven melodic strains then repeats (in a so-called double cursus or "double run-through") to provide the next seven. The last pair of melodic units recapitulates the opening and closing strains of the cursus. Line lengths are almost uniformly in multiples of four syllables (eight, twelve, sixteen), giving an impression of regular meter. Not only that, but the words of many of the couplets are linked by such a strong use of assonance—similarity of vowel placement—as to approach rhyme.

This was not only a remarkable composition but a famous one. It is found complete on a French manuscript leaf dating from the tenth century, but we know that it was a ninth-century composition—and already famous in the ninth century—because its first two couplets were chosen as a didactic illustration in *Musica enchiriadis* ("Handbook of music"), the earliest surviving Frankish treatise about practical music-making, which is thought to date from some time between 860 and 900. The illustration is reproduced in Fig. 2-2. It is one of several examples in the treatise of polyphonic singing, and can serve us as a forceful reminder that polyphony was routinely practiced among the Franks as early as we have any evidence of their musical practice at all.

In this arrangement (transcribed in Ex. 2-6), the upper voice sings the original *Rex caeli* melody, for which reason it is called the "principal voice" (*vox principalis*). The lower voice, called the *vox organalis* because it produces the harmony or counterpoint (called *organum* at the time), begins at the unison and holds on to its initial pitch as a drone until the principal voice has reached the interval of a fourth above it, the smallest interval considered consonant according to the theory of the time. At this point, the two voices move in parallel until the cadence (or *occursus*, as it was called, meaning

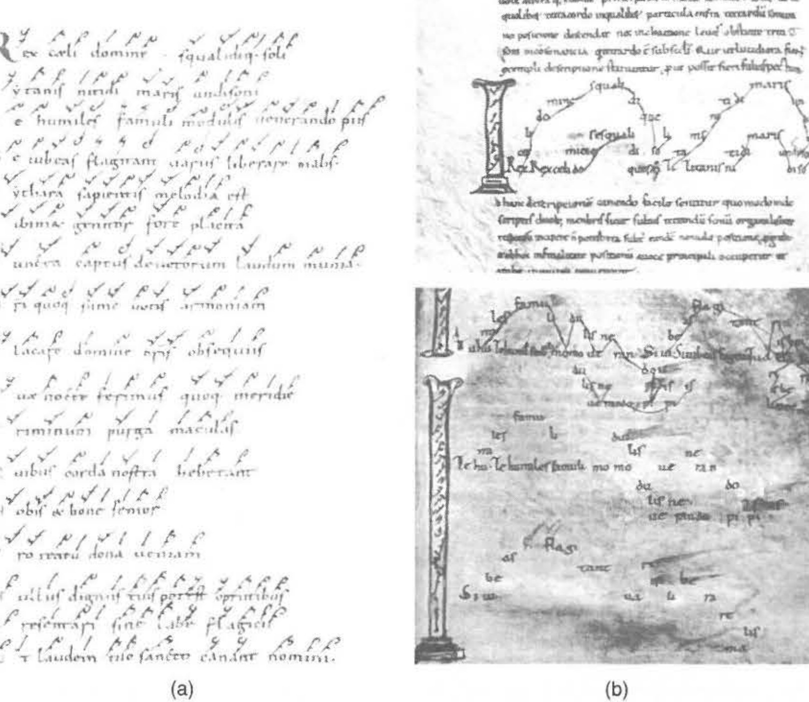


FIG. 2-2 *Rex caeli Domine*, a sequence-like hymn probably dating from the ninth century. (a) Its most complete source, a French manuscript from the tenth century written in an alphabetic notation that specifies pitch precisely. (b) Its earliest source, the ninth-century treatise *Musica enchiriadis*, which shows a fragment of it, in a similar notational style, adapted to illustrate a common practice whereby monophonic chants were amplified polyphonically in performance. This provides evidence of polyphony as early as any evidence of the chant itself.

EX. 2-5 *Rex caeli Domine* (Fig. 2-2a) transcribed

a

1. Rex cae - li, Do - mi - ne ma - ris un - di - so - ni, Ti - ta - nis ni - ti - di squa - li - di - que so - li,
King of heaven, Lord of the sounding sea, of the shining Titan sun and the gloomy earth,
8. Mor - ta - lis o - cu - lus vi - det in fa - ci - e, Tu au - tem la - te - bras a - ni - mi per a - gras.
The mortal eye sees the external form; Thou, however, dost search through the hiding places of the soul.

b

2. Te hu - mi - les fa - mu - li mo - du - lis ve - ne - ran - do pi - is,
Thy humble servants, worshiping Thee with devout song as Thou has bidden,
9. So - no - ris fi - di - bus fa - mu - li ti - bi - met de - vo - ti
With sounding strings, we servants devoted to Thee

Se, ju - be - as, fla - gi - tant va - ri - is li - be - ra - re ma - lis
earnestly entreat Thee to order them freed from their various ills.
Da - vi - dis se - qui - mur hu - mi - lem re - gis pre - cum ho - sti - am.
attend the humble offering of the prayers of King David.

EX. 2-5 *(continued)*

3. Ci - tha - ra sa - pi - en - tis me - lo - di - a est Ti - bi - met, ge - ni - tor, for - te pla - ci - ta;
The cithara is the song of the wise; to Thee, Creator, may it be pleasing.
10. Hoc Sa - ul lu - di - cro mi - ti - ga - ve - rat, Spi - ri - tu cum si - bi for - te de - bi - lem
With this entertainment he had soothed Saul when from his soul, made feeble by chance,

Cun-cta ca-ptus de-vo-to-rum lau-dum mu-ni - a No-stri quo-que su-me vo - ti har-mo-ni-am.
Having obtained the whole service of praise of the devoted, receive also the harmony of our prayer.
Spi - ri - ta-lem a - bo - le - bat ju - sti - ti - am Ip - so jo - co tu - a can-tans prae-co - ni - a.
he was blotting out righteous justice; in this pastime singing your praises.

4. Pla - ca - re, Do-mi - ne, no-stris ob - se - qui - is, Quae noc - te fer - i - mus, quo-que me - ri - di - e,
May Thou be appeased by our services, which we offer by night and also by day . . .
11. Haec si - bi cae - li - tus mu-ne - ra ve - ne-rant, Ut i - ram dul - ci - bus pre - me-ret mo-du - lis.
These gifts had come to him from heaven, that he might check anger with pleasant melodies.

Trans. Richard H. Hoppin

EX. 2-6 Polyphonic example from *Musica enchiriadis* (Fig. 2-2b) transcribed

the coming-together), which restores the unison. In the second phrase, the augmented fourth against B is avoided first by sustaining the "organal" G, and then by leaping to E. Once again unison is restored at the end.

This is *not* a polyphonic "composition." Rather, it is an example of how Frankish cantors harmonized the chants they sang "by ear." How did that style of harmony get into their ears? The answer to that question is lost among the unnotated musical repertories that existed alongside the privileged repertory of notated Roman and Frankish chant. Literate musicians have always been much affected by the music in their aural environment, and the performance of all music, whether written down or not, is governed in part by unwritten conventions. (Otherwise, one could learn to compose or to play the piano simply by reading books.) We can assume that the monks who

recorded our first examples of polyphony were not inventing it but adapting it from oral (probably secular) practice, and that the early examples were meant as models for application to other melodies.

Which melodies? More likely the new Frankish repertory of proses, hymns, and suchlike than the canonical Roman chant. That chant, being largely psalmodic, had (as we have seen) an exceptional "ethical" tradition demanding unison performance. The other, simpler examples given in *Musica enchiriadis* of polyphonic "performance practice" (strictly parallel doubling at the fourth, the fifth, and the octave) are based, like the one shown in Fig. 2-2, on syllabic Frankish compositions in the new style. But we do not really know what restrictions or preferences there may have been at this time; and it is tantalizingly possible that polyphonic singing was not the exception but the rule, at least in certain monastic communities.

The other remarkable feature of the *Rex caeli* hymn, both in its complete source and as quoted in *Musica enchiriadis*, is its notation. It is called Daseian notation after the Greek *prosodia daseia*, the "sign of rough breathing" used in various modified forms by Greek music theorists to indicate pitches, and it is found mainly in didactic treatises. In Fig. 2-1, Daseian signs showing the pitches from *c* to *a* are written in ascending order inside the column preceding the first phrase of *Rex caeli*, and those from *c* to *c'* precede the wider-ranging second phrase. Here is proof that the Franks had at their disposal a notation that showed exact pitches. They could have used it in their chant manuscripts, too, if they had wanted to do so. Again we must confront the fact that music was still primarily an art of memory, and that in practical sources all that was required was enough notation to bring a melody forward, so to speak, from the back of the mind. "Sight-reading," as we know it today, was not yet thought a useful skill.

HYMNS

The sequence, although it was the most elaborate, was only one of many new musical forms with which the Franks adorned and amplified the imported Roman chant, and made it their own. The strophic office hymn was another genre that they cultivated avidly. The Latin liturgy had known hymnody since at least the fourth century, but for doctrinal reasons it was rejected in Rome (and so it was not part of the repertory brought north under the Carolingians). St. Augustine recounts that his teacher St. Ambrose, the fourth-century bishop of Milan, had adapted hymns from Greek practice for full congregational singing during vigils. The greatest Latin hymnographer after Ambrose was a contemporary of Pope Gregory named Venantius Fortunatus (d. ca. 600), an Italian who served as bishop of Poitiers in west-central France. His most famous composition, *Pange lingua gloriosi* ("Sing, O my tongue"), used a metrical scheme (trochaic tetrameter) that would be widely imitated by later hymn composers.

Both Ambrose's fourth-century Milanese texts and Venantius's sixth-century "Gallican" ones remained current into the twentieth century, but no melodies can be documented before the year 1000, and once they begin appearing in monastic manuscripts, they appear in such profusion that most of the oldest texts are provided with as many as a dozen or more tunes. There is no telling which or how many of them

FIG. 2-3 St. Ambrose, the ninth-century governor and bishop of Milan who introduced Byzantine-style hymn-singing to the Western church. He is shown writing, in an illumination—initial F (Frater Ambrosius)—from the Bible of Pedro de Pamplona, Seville, MS 56-5-1, fol. 2.

date from before the ninth century, but the overwhelming majority conform so much better with the tonal criteria established by the ninth-century Frankish music theorists (whose work we will shortly be investigating) than they do with the tonal types of the Roman chant, that their Frankish origin seems virtually certain.

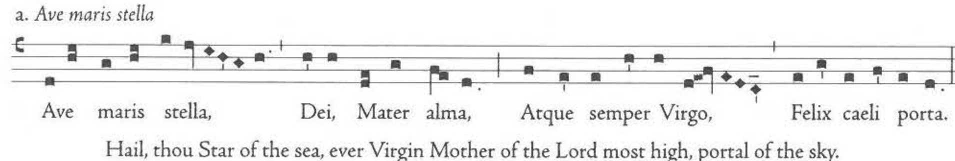
Hymnody is the apparent antithesis (or rather, the calculated complement) of psalmody. Where psalms and their stichic appendages are lofty and numinous, conducive to spiritual repose and contemplation, hymns are the liturgy's popular songs: markedly rhythmical (whether their rhythms are organized by syllable count or by actual meter), strongly profiled in melody, conducive to enthusiasm. The first verses of three of the most famous ones are given in Ex. 2-7. At this point they may be regarded primarily as illustrations of the genre, but later they will serve as examples of contrasting tonalities within the Frankish "mode" system (and later still, we will see them embodied in polyphonic settings by famous composers).

Ave maris stella ("Hail, Star of the sea") is an acclamation to the Blessed Virgin Mary intended for one of the many offices devoted to her that burgeoned in the Franco-Roman liturgy around the time of the early neumated manuscripts. The text is securely dated to the ninth century. The rather decoratively neumatic tune, the most famous of several associated with the poem, makes its appearance in the extant manuscripts somewhat later. In a still primarily oral age, however, the date of a melody's earliest written source bears no reliable witness to the date of its creation.

The version of *Pange lingua* that follows is not Venantius's original but a reworking—called "parody," but without any connotation of satire—by St. Thomas Aquinas (d. 1274), composed for the office of Corpus Christi (veneration of the body of Christ). Like our contemporary satirical parodies, medieval sacred parodies (also called *contrafacta*) were meant to be sung to traditional tunes, so that in this case the melody is far older than the words. Both this example and the preceding one testify in their opposite ways to the fluidity of the text-music relationship in this and many other medieval sung repertories.

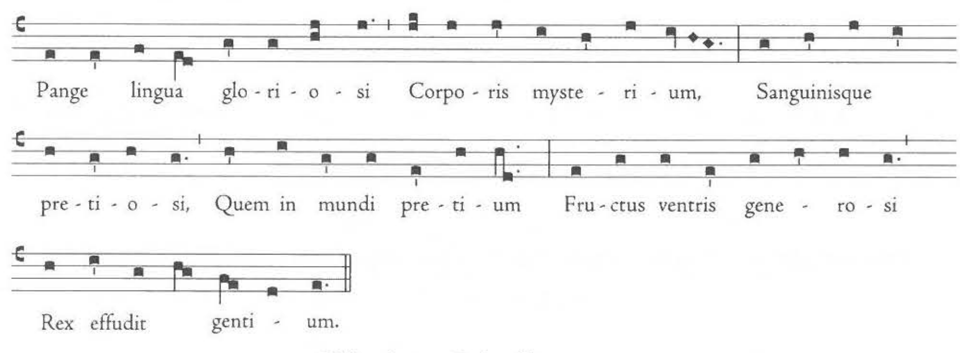
Veni creator spiritus, the great Pentecost hymn and something of a Carolingian anthem, has been attributed honorifically to many famous Franks, including Hrabanus Maurus (d. 856), the archbishop of Mainz, and even Charlemagne himself. The poem employs the so-called Ambrosian stanza (four lines of eight syllables each), established by the original Latin hymnodist five centuries before; but the dynamically arching melody, its successive phrases marking cadences on what we still identify as "primary" scale degrees, is of exemplary Frankish design.

EX. 2-7 Three Frankish hymns



Hail, thou Star of the sea, ever Virgin Mother of the Lord most high, portal of the sky.

EX. 2-7B *Pange lingua gloriosi*



Of the glorious Body telling,
O my tongue, its mystery sing,
and the Blood, all price excelling,
which for this world's ransoming
in a noble womb once dwelling
he shed forth, the Gentiles' king.

EX. 2-7C *Veni creator spiritus*

Thou, Holy Ghost, Creator, come,
and make thy people's souls thy home:
with grace celestial animate
the hearts thou didst thyself create.

TROPES

Sequences and hymns were complete compositions in their own right—freestanding songs, so to speak, on a par (but contrasting in style) with the psalmodic chants of the inherited Roman chant. Another large category of Frankish compositions consisted of chants that did not stand alone but were attached in various ways and for various reasons to other—usually older, canonical—chants. One of the commonest ways of attaching new musical settings to older ones was by casting the new one as a preface, to amplify and interpret the old one for the benefit of contemporary worshipers. Although the practice, like most Frankish musical innovations, can be dated to the ninth century, it was cultivated most intensely beginning in the tenth, reflecting (if only indirectly) the spiritual and creative ideals of the so-called Cluniac reform of monastic life.

The Benedictine monastery of Cluny, in east-central France, was founded by the Abbot Berno in 910 under the patronage of Guillaume (William) the Pious, the first duke of Aquitaine. It was established on land recently won by William from the duke of Burgundy and deeded to the monastery outright so as to free it from lay interference. There, Berno sought to reestablish the original Benedictine discipline that had seriously eroded during two centuries of Norse invasion. The chief means of purifying monastic life was vastly to increase the amount of time and energy devoted to liturgical observances. That meant not only expanding the duration and gravity of services but also educating the monks in devotion. This was a possible purpose of the newly composed prefaces, called tropes (from the Latin *tropus*, possibly related to the Byzantine-Greek *troparion*, or nonscriptural hymn stanza in art-prose).

The primary sites of troping were the antiphons of the Mass proper. Attached most characteristically to the Introit, the trope became a comment on the Mass as a whole, as if to say, "We are celebrating Mass today, and this is the reason." Tropes were also attached to the other Gregorian antiphons that accompanied ritual action, especially the Offertory ("we are offering gifts, and this is the reason") and the Communion ("we are tasting the wine and the wafer, and this is the reason"). While troping became a very widespread practice as the Cluniac reform spread over large areas of France, Germany, and northern Italy, the individual tropes were a more local and discretionary genre than the canonical chant. A given antiphon can be found with many different prefaces in various sources, reflecting local liturgical customs.

At their most elaborate, tropes could function not only as preface to a complete Introit, say, but also as prefaces to each stichic psalm-verse in the antiphon, or to the cursive verse or verses that followed, or even to the doxology formula. Thus, in practice, tropes could take the form of interpolations as well as prefaces. Unlike the syllabic sequence, which contrasted starkly with the melismatic alleluia that it followed, tropes imitated the neumatic style of the antiphons to which they were appended, to all intents and purposes becoming part of them. Because the first words of chants are always sung by the precentor to set the pitch, it is thought that the tropes may have been differentiated from the choral antiphons by being assigned to soloists.

Manuscripts containing tropes, called "tropers," are preeminently associated with two monasteries. One is the East Frankish monastery of St. Gallen, where Notker played his part in the development of the sequence, and where the monk Tuotilo (d. 915) may have had a similar hand in the development of the trope. The other is the West Frankish monastery of St. Martial at Limoges in southwestern France, which in the tenth century belonged, like Cluny, to the Duchy of Aquitaine. The four tropes or sets of tropes in Ex. 2-8 and Ex. 2-9 are all found in tenth-century St. Martial tropers (but with later concordances in staff notation), and all meant to enlarge upon the same canonical item—the Introit of the Easter Sunday Mass, the most copiously troped item in the entire liturgy.

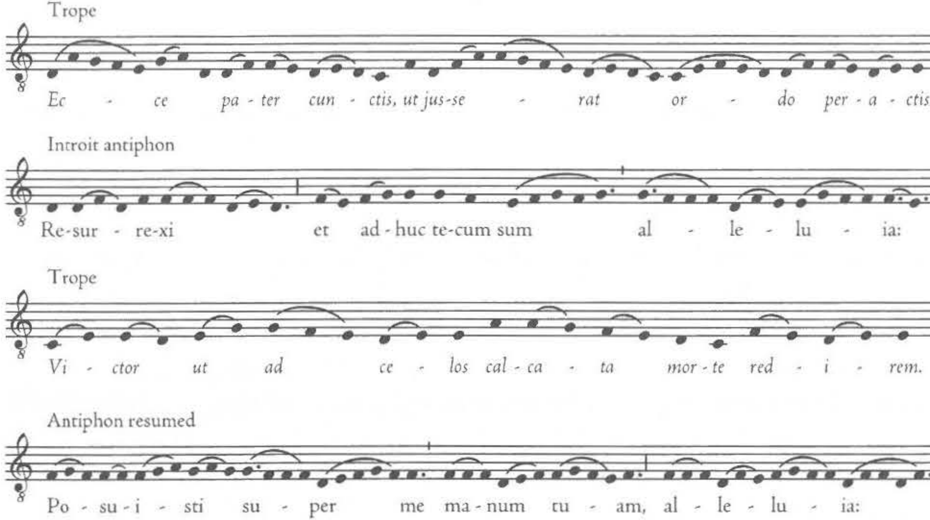
The canonical text of the Introit consists of excerpts from three verses—18, 5, and 6 respectively—of Psalm 138, words that by the ninth century already had a long tradition of Christian *exegesis*, or doctrinal interpretation. Within the original Psalm, the verse excerpt that opens the Introit—*Resurrexi, et adhuc tecum sum* ("I arose, and am still with thee")—refers to an awakening from sleep. Amalar of Metz was one of the many Christian commentators who construed these words as having been addressed by the eternal Christ to his Father through the unwitting agency of the psalmist David, and thus to refer prophetically to the event the Easter Mass commemorates: Christ's resurrection from the dead on the third day after his crucifixion. It was one of the functions of the tropes to confirm this interpretation and render it explicit.

The first and simplest trope in the sample (Ex. 2-8a) consists of a single exhortation or invitation to the choir to sing, strengthening the assumption that the trope would have been performed by a precentor or cantor. Despite its brevity, it manages most economically to accomplish the task of an exegetical trope, identifying the psalmist's words with the victory of Christ. Ex. 2-8b contains what might be called a full set of tropes to the Introit, introducing not only the first stich but each of the other two as well. An even more elaborate set has a fourth line to set off the concluding "alleluia." Like the one in Ex. 2-6b, it amplifies the psalm verses with a patchwork of texts freely mined and adapted from the Bible and meant in this context, like the Introit verses themselves, to represent the words of Christ. Yet another set of Introit tropes from St. Martial embeds the Introit text within a narrative that imitates the style of the Gospels, and attaches *neumes* or interpolated melismas to each stich in the antiphon as a further embellishment.

EX. 2-8A Prefatory trope to the Easter Introit, *Resurrexi*

Make music in honor of our great King who defeated death's dominion, saying "Eya":
I rose again, and am still with you . . .

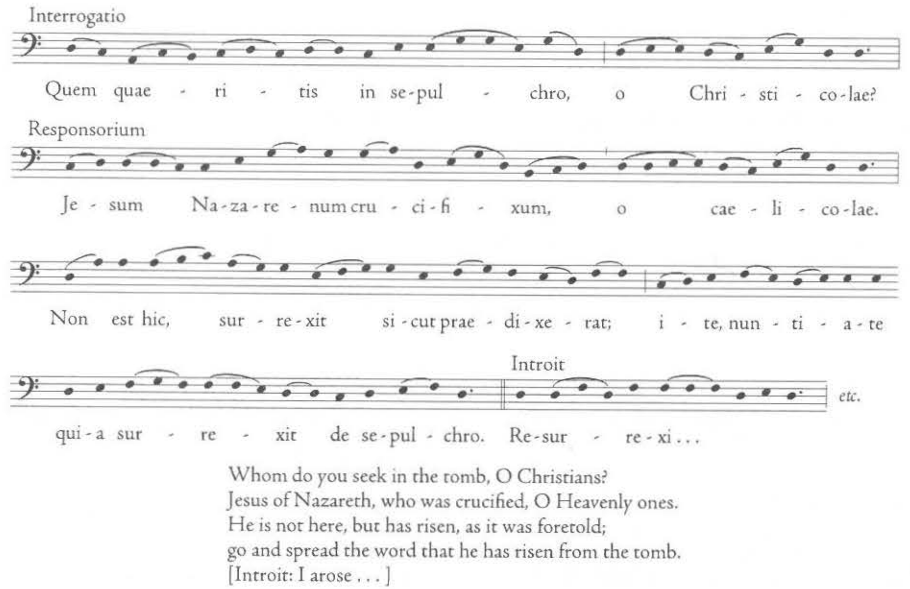
EX. 2-8B The Easter Introit, larded with two sets of tropes from the monastery of St. Martial



By all odds the most famous of the *Resurrexi* tropes, probably the most famous of all tropes, are the ones that recount the *visitatio sepulchri*—the visit of the three Marys to Christ's tomb on the morning after his burial—in the form of a dialogue between them and the angel who announces the Resurrection, thus furnishing a very neat transition into the Introit text. In Ex. 2-9, which gives an early version of this trope from a St. Gallen manuscript dating around 950, the text carries special directions (known in liturgical books as *rubrics*, since they were often entered in red ink made from *rubrica*, Latin for "red earth") somewhat needlessly specifying what is a "question" (*interrogatio*) and what an "answer" (*responsorium*). These rubrics seem to be an indication that two (or several) singers were to act out the dialogue in parts. Tropes like this one were the earliest and simplest of what became a large repertory of Latin church plays (sometimes called "liturgical dramas") with music. More elaborate ones will be described in the next chapter.

Like many favorite chants, the Easter dialogue trope gave rise to parodies. An eleventh-century manuscript at St. Martial contains a dialogue trope for Christmas that mimics the Easter prototype in entertaining detail, beginning with the famous incipit *Quem quaeritis* ("Whom do you seek?"), then substituting the manger for the tomb and the shepherds for the Marys. Once again, the object is to justify an Old Testament reading as a prophecy of Christ's coming, in this case the famous lines from the book of Isaiah ("Unto us a child is born") on which the Christmas Introit is based. Christmas, too, became a fertile site of church dramas ("manger plays") in centuries to come. Scholars used to think that the eventual medieval church plays, enacted not at Mass but after matins, were amplifications of actual Introit tropes (tropes on tropes, so to speak). The relationship has turned out to be far less direct than that, but the general practice of acting out the liturgy did nevertheless originate in the dialogue tropes for Easter and Christmas.

EX. 2-9 Easter dialogue trope (*Quem quaeritis in sepulchro*)



THE MASS ORDINARY

Finally, Frankish composers were responsible for creating fancy melodies for the invariant texts of the Mass liturgy, the ones recited at every Mass regardless of the occasion. There had not been any need for such settings in pre-Carolingian times, because these texts—acclamations all—had not yet been assigned stable liturgical positions. Their adoption by the Franks reflects a love of pomp, most likely transferred from civic ceremonial (like the *laudes regiae*, the "royal acclamations," with which Charlemagne was greeted after his Roman coronation). Once these texts became fixed, they could be written down as part of the Mass *ordo* (Latin for "order of events"), which listed things to do at a given service.

The texts (and chants) proper to the unique occasion were collected in their own books (antiphoners, graduals, and the like). Those that were sung at every Mass were included in the ordo itself. Hence to musicians the term "Mass Ordinary" (from *ordinarium missae*) has come to mean, precisely, the five invariant texts sung by the choir: Kyrie, Gloria,

FIG. 2-4 Ivory book cover, probably of a sacramentary or a graduale, from the court of Charles the Bald, Charlemagne's grandson, who ruled the kingdom of the West Franks from 843 to 877. It shows the Eucharist service—the second part of the solemn Mass, in which the wine and host are miraculously transformed.

Credo, Sanctus, and Agnus Dei. These began to receive significant musical attention in the Carolingian period; much later they began to get set as a unified polyphonic cycle, spawning a tradition of Mass composition that lasted into the twentieth century, to which many famous composers of the standard concert repertory (Bach, Mozart, Beethoven, to name a few) made contributions. Another text that was often included in the early ordinary formularies was the dismissal versicle (*Ite, missa est*—from which the term Missa, for Mass, was adopted) and its response, *Deo gratias* ("Thanks be to God").

The Gloria, also known as the "Gloria in excelsis" or Greater Doxology (to distinguish it from the "Gloria patri" formula or Lesser Doxology, inserted at the end of psalms and canticles), was the first to be cultivated. Its text begins with two verses or stichs from the Gospel of St. Luke, quoting the angels' greeting to the shepherds on the night of the Nativity. For this reason, before it was assigned to its fixed position in the Mass, the *Gloria in excelsis* was often used as a Christmas processional hymn, forming the culmination of the celebrants' entrance. (It was also used this way at Easter; and after it joined the Mass, it was not sung during the penitential weeks preceding those two feasts so that its reappearance would express seasonal gladness.) Following the angelic hymn are a series of *laudes* that may actually have originated in the context of ruler worship. Next come a series of litanies, or petitions, and finally a concluding praise-song. While its earliest use seems to have been congregational, implying a simple, formulaic style, the Glorias preserved in Frankish manuscripts are neumatic chants with occasional melismas, and (once past the celebrant's intonation) are clearly intended for the clerical or monastic *schola*. Ex. 2-10 is a ninth-century Gloria melody, one of the earliest of the forty or so surviving Frankish settings. (Its number, IV, is the one assigned to it in modern chant books.)

The Sanctus is a biblical acclamation (from the book of Isaiah). Under its Hebrew name, *Kedusha*, it has been part of the Jewish worship service since ancient times, whence it was taken over by the earliest Christians as the congregation's part of the "eucharistic" (thanksgiving) prayer. Even in its Latin form, the text retains a pair of Hebrew words: *Sabaoth* ("hosts") and *Hosanna* ("save us"). The earliest Frankish settings, like Ex. 2-11, date from the tenth century. By then, like the Gloria, it was sung not by the entire congregation but by the trained *schola*.

The Agnus Dei has a much shorter history in the liturgy than the Sanctus, having been introduced to the Mass only in the seventh century, to accompany the breaking of bread before communion. At first it was cast as litanies, with an unspecified number of repetitions of the acclamation to the Lamb of God, answered by the congregational prayer, "have mercy on us." Later the chant was standardized and abbreviated, limited to three acclamations, and with the third response changed to "grant us peace." This happened right around the time the Franks were busy composing their "ordinary" chants, and so the early melodies were in this case coeval with the text. Of the two following examples, the first (Ex. 2-12a) probably represents a survival from the older litany practice, while the second (Ex. 2-12b), a Frankish arrangement and abridgment of the earliest (Greek) surviving melody for the Agnus Dei, is cast in a rounded "ternary form" (ABA) to match the adapted text. Its neumatic antiphon-like style makes it suitable for performance by the *schola*.

Since the ordinary chants were composed precisely when the practice of antiphon-troping was at its height, they too played host to sometimes very extended tropes. Particularly rich is the repertory of Gloria tropes, many of which were proper to specific feasts or classes of feast (such as those in honor of the Blessed Virgin). These tropes often took the form of additional *laudes* or acclamations, inserted in between the

EX. 2-10 Gloria IV

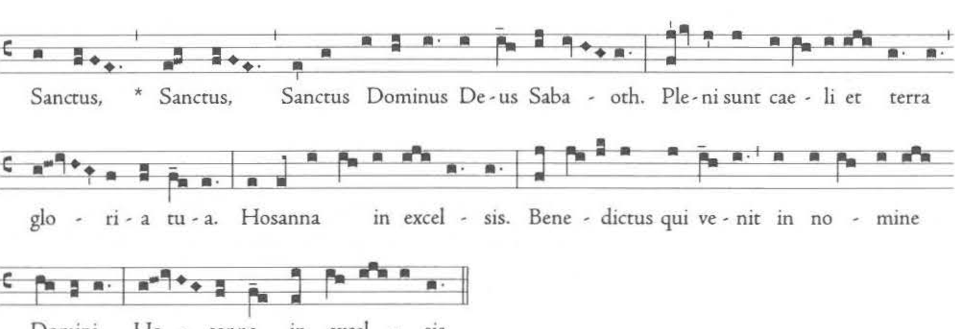
Glo - ri - a in excelsis De - o. Et in terra pax ho-mi-ni-bus bonae vo-lunta-tis. Laudamus te.
Bene - di-cimus te. Ado - ra - mus te. Glo-ri-fica - mus te. Gra - ti-as agimus
ti - bi propter magnam glo-ri-am tu-am. Domi - ne De-us, Rex caelestis, De - us Pa - ter
omni-pot-ens. Domine Fi-li uni - geni - te Je - su Chri - ste. Domine De - us,
Agnus De - i, Fi - li-us Pa - tris. Qui tollis pecca-ta mundi, mi - se - re - re no - bis.
Qui tollis pecca-ta mundi, suscipe depreca-ti-onem nostram. Qui se-des ad dexteram Patris,
mi-se-re-re no-bis. Quo-ni-am tu so-lus sanctus. Tu so-lus Dominus. Tu solus Altissimus,
Je - su Chri - ste. Cum Sancto Spi - ri - tu, in glo-ri-a De-i Pa - tris.
A - men.

Glory to God on high.
And on earth peace to men of good will.
We praise thee, we bless thee, we adore thee,
we glorify thee.
We give thee thanks for thy great glory.
O Lord God, King of heaven,
God the Father almighty.
O Lord, the only begotten Son, Jesus Christ.
O Lord God, Lamb of God, Son of the Father.
Thou who takest away the sins of the world,
have mercy on us.
Thou who takest away the sins of the world,
receive our prayer.
thou who sittest at the right hand of the Father,
have mercy on us.
For thou only art holy,
Thou only art Lord.
Thou only art most high, O Jesus Christ,
With the Holy Ghost,
In the glory of God the Father.
Amen.

standard ones. One such verse that seemed to live a life of its own in the manuscripts went *Regnum tuum solidum permanebit in aeternum* ("Your abiding reign will endure forever"). It is found following "Tu solus altissimus, Jesu Christe" in many sources, associated with many different Gloria melodies.

What is especially fascinating is the way in which *Regnum tuum solidum* itself became a site for embellishment. In some sources, an impressive *neuma* (as Amalar would have called it) has been grafted in to coincide with the first syllable of the word *permanebit* ("will endure"). This seems to be an example of what would later be called "tone

EX. 2-11 Sanctus I



Holy, holy, holy, Lord God of Hosts.
The heavens and earth are full of thy glory.
Hosanna in the highest.
Blessed is he who comes in the name of the Lord.
Hosanna in the highest.

EX. 2-12A Agnus XVIII

Lamb of God,
who takest away the sins of the world,
have mercy on us.

Lamb of God,
who takest away the sins of the world,
have mercy on us.

Lamb of God,
who takest away the sins of the world,
give us peace.

painting," since the melisma, by stretching the word out, in effect illustrates its meaning. And then, in other sources, the melisma is subjected in turn to syllabic texting in the form of a *prosula*. Thus two types of liturgical embroidery—melodic (*neuma*) and textual (*prosula*)—have been combined with a melodic/textual interpolation (*trope*) in one magnificent clump (Ex. 2-13).

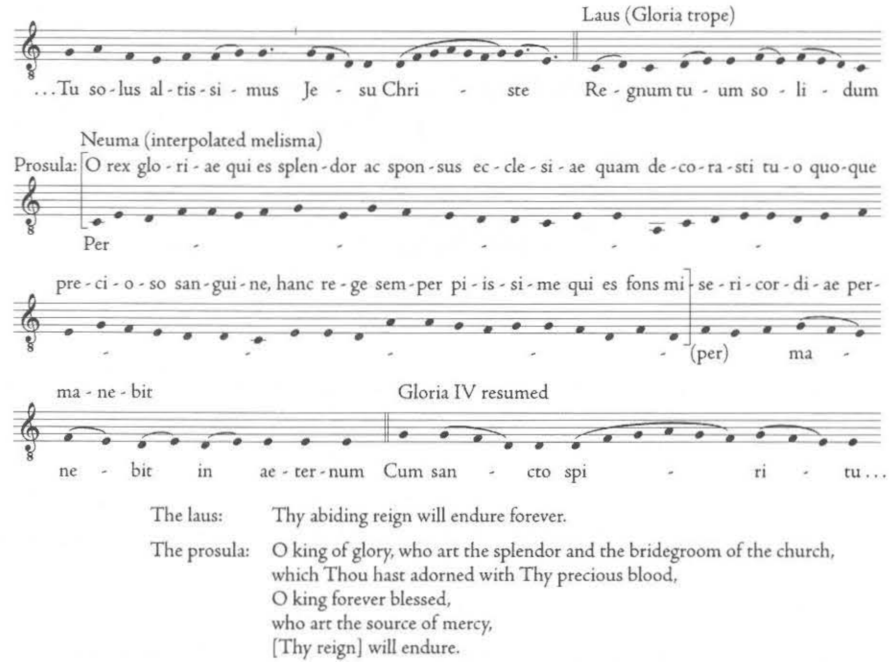
EX. 2-12B Agnus II

Lamb of God,
who takest away the sins of the world,
have mercy on us.

Lamb of God,
who takest away the sins of the world,
have mercy on us.

Lamb of God,
who takest away the sins of the world,
give us peace.

EX. 2-13 A *prosula* within a *neuma* within a *laus* within a Gloria

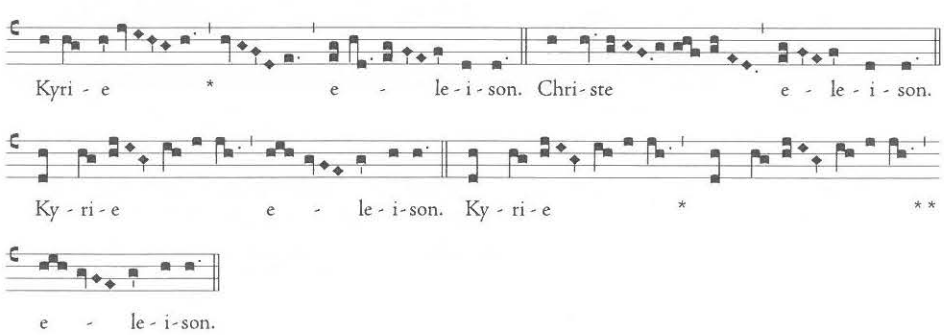


KYRIES

The remaining "ordinary" chant, the *Kyrie eleison*, has a more complex—indeed, a somewhat puzzling—history. Its special status is evident first of all from its language: the one Greek survival in the Latin Mass. *Kyrie eleison* means the same thing as *Domine, miserere nobis*: namely, "Lord, have mercy on us" (compare the middle part of the Gloria in Excelsis and the Agnus Dei refrain). It used to be a common liturgical response, especially appropriate for use in the long series of petitions known as litanies, which often accompanied processions. Pope Gregory the Great, in one of the few musically or liturgically significant acts that may be firmly associated with his name, decreed in a letter that the formula *Kyrie eleison* should alternate with *Christe eleison* ("Christ [that is, Savior], have mercy on us"). By the ninth century, when the Frankish musicians went to work on the chant, the Kyrie had been established as a ninefold acclamation: thrice Kyrie eleison, thrice Christe eleison, thrice Kyrie eleison.

As in the case of the other "ordinary" chants, there are simple Kyries that probably reflect early congregational singing, and more decorative melodies that were probably produced at the Frankish monasteries, beginning in the tenth century, for performance by the *schola*. These more artful Kyrie tunes often reflect the shape of the litany they adorn, matching its ninefold elaboration of a three-part idea with patterns of repetition like AAA BBB AAA' or AAA BBB CCC'. (In both cases the last invocation—the A' or C'—is usually rendered more emphatic than the rest, most typically by inserting or repeating a melisma.) Ex. 2-14a is one of these tenth-century tunes; note that while the words *Kyrie–Christe–Kyrie* are set to a non-repeating (ABC) pattern, the word *eleison* has an AA'B pattern. The retention of the same formula for *eleison* while *Kyrie* changes to *Christe* and back seems to be a vestige of an old congregational litany refrain.

EX. 2-14A Kyrie IV

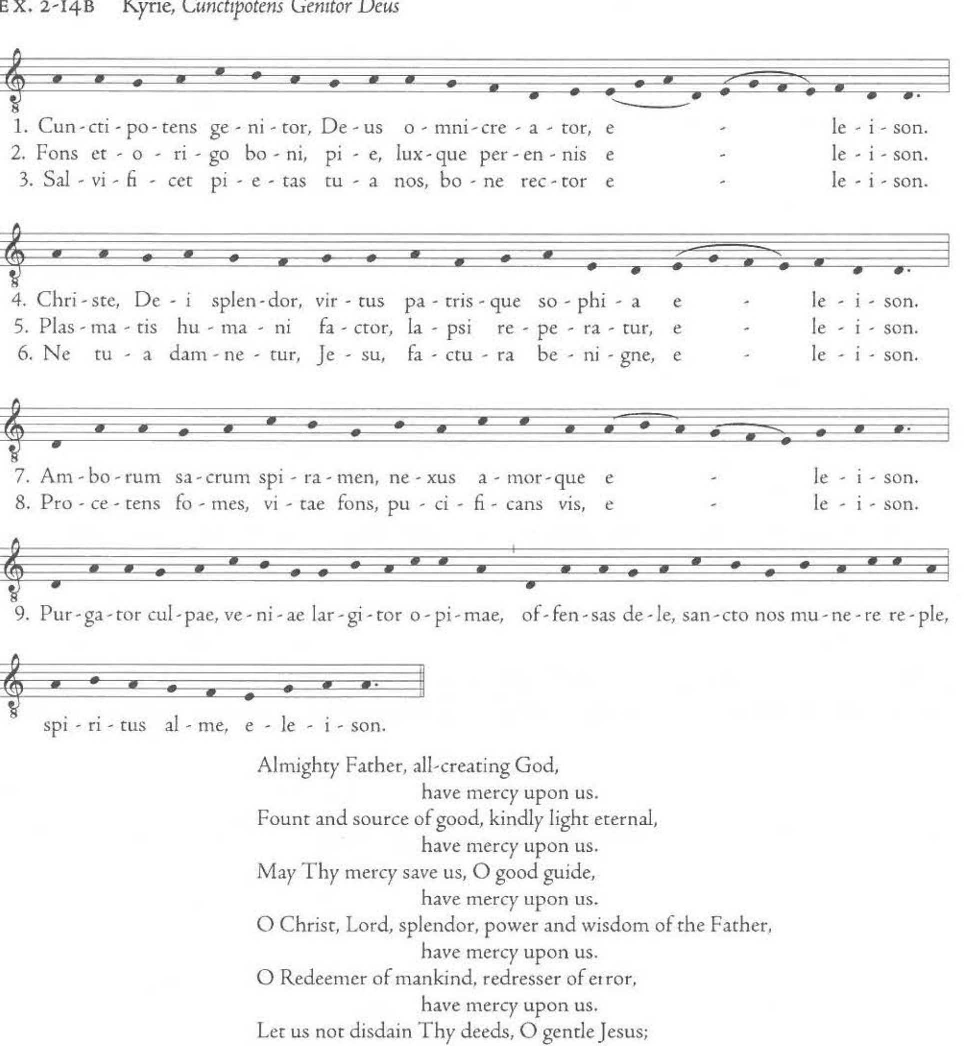


The earliest sources for ordinary chants were little books called *Kyriale*, by analogy with *Graduale*, the much bigger book that contained the Mass propers. Most Kyriales date from the tenth and eleventh centuries. One of their curious features is the way Kyrie melodies are recorded in them. They are entered twice, first in melismatic form as shown in Ex. 2-14a, and then in syllabically texted form as shown in Ex. 2-14b.

The easy explanation would be that the melismatic Kyrie is the canonical version, and the syllabically texted one has been enhanced (or corrupted) by a prosula. That, at

any rate, was the assumption made by the sixteenth-century editors of the chant who, in the purifying spirit of the Counter Reformation, purged all Kyries of their syllabic texts. (Even so, their old incipits are still used to identify the Kyrie melodies in modern liturgical books: Ex. 2-14a is now called "Kyrie IV, *Cunctipotens Genitor Deus*.") There are several reasons to question that assumption. For one thing there is no evidence that the melismatic Kyries are any older than the texted ones. They appear side by side in the sources from the beginning. Indeed, the earliest text we have for a Mass Kyrie, from Amalar of Metz himself, writing around 830, is "texted," as follows: *Kyrie eleison, Domine*

EX. 2-14B Kyrie, *Cunctipotens Genitor Deus*



Almighty Father, all-creating God,
have mercy upon us.
Fount and source of good, kindly light eternal,
have mercy upon us.
May Thy mercy save us, O good guide,
have mercy upon us.
O Christ, Lord, splendor, power and wisdom of the Father,
have mercy upon us.
O Redeemer of mankind, redresser of error,
have mercy upon us.
Let us not disdain Thy deeds, O gentle Jesus;
have mercy upon us.
Sacred spirit of both, and united love,
have mercy upon us.
Perpetual activator of life, purifying fount,
have mercy upon us.
Highest cleanser of sin, bestower of mercy, take away our offense,
fill us with Thy holy bounty,
O nourishing spirit, have mercy upon us.

pater, miserere; Christe eleison, miserere, qui nos redemisti sanguine tuo; et iterum Kyrie eleison, Domine Spiritus Sancte, miserere. [Lord have mercy on us; O Lord our father, have mercy on us; Christ, have mercy on us, O Thou who hast redeemed us with Thy blood; and again, Lord, have mercy on us; O Lord, Holy Spirit, have mercy on us.]

This, then, was a Kyrie that to a ninth-century writer looked normal, consisting as it did of a traditional Greek acclamation amplified with newer and more specific Latin ones.

Evidence concerning chronology—the age of sources, the testimony of early witnesses—counts as "external" evidence. There is "internal" evidence, too, on behalf of the primacy of texted Kyries—that is, evidence based on observation of the musical artifacts themselves (or rather, their appearance in the manuscripts we have). If the texts in the texted Kyries are indeed prosulas—that is, words added to a preexisting melismatic chant—then why is the short neuma on *eleison* left "unprosulated" every time? Would it not be more plausible to assume that the regular alternation of syllabic and neumatic prosody was part of the original conception? In the case of *Cunctipotens genitor*, the texted form must have come first for the additional reason that the text is in verse, not prose. What is not prose is no prosula. Less tautologically, there is little likelihood that the notes of a preexisting melisma will by chance accommodate the strict requirements of poetic scansion.

It has been suggested that the reason for the appearance of texted and melismatic Kyrie melodies side by side has to do with the state of notation in the tenth century, when the neumes had been well established, but the staff had yet to be invented. The syllabic notation was necessary in order to show which syllables were sung to which notes; but the melismatic notation, in which the various neume shapes indicated rise and fall much better than single notes could do, was necessary in order to record the melodies' contour accurately enough to serve even a rudimentary mnemonic purpose. The same double-entry procedure is found in early sequence manuscripts. Both the syllabic sequence melody and a melismatic counterpart, conventionally texted *Alleluia*, are frequently found side by side, or else in consecutive sections of the book. The assumption that these melismatic tunes were in every case preexisting *sequentia* melismas, to which the words of the sequence were later added, has been questioned on the same grounds of chronology as in the case of the Kyries, and this has led to a thorough revision of the history of the sequence.[4] It was probably cases like these, where double notation was necessary in order to convey all the needed information, that made it urgent to find a way of conveying all the information at once. This, in short, may have been the necessity that mothered the invention of the staff.

THE FULL FRANKO-ROMAN MASS

With the standardization of the "ordinary" chants, the Franks completed a musical enhancement of the sixth-century *ordo* (or agenda) of the western Mass that established its form for the next millennium. Their version, which was reimported back to Rome in the eleventh century and became standard almost everywhere in Europe and the British Isles, is given in Table 2-1.

TABLE 2-1 Ordo of the Western Mass

SUNG *(concentus)*		**SPOKEN OR RECITED TO A TONE** *(accentus)*	
Proper	Ordinary	Proper	Ordinary
	SYNAXIS		
1. Introit			
	2. Kyrie 3. Gloria (omitted during Lent and Advent)		
		4. Collect (call to prayer) 5. Epistle reading	
6. Gradual (replaced between Easter and Pentecost by an Alleluia) 7. Alleluia (replaced during Lent and Advent by the Tract) 8. Sequence (ubiquitous and fully canonical from the tenth to the sixteenth centuries; only four survived the Counter Reformation*)			
		9. Gospel reading	
		(Sermon)	
	EUCHARIST		
	10. Credo		
11. Offertory			
			12. Offertory prayers
		13. Secret (Celebrant's silent prayer) 14. Preface to the Sanctus	
	15. Sanctus		
			16. Canon (Celebrant's Prayer consecrating wine and bread) 17. Lord's Prayer (congregation)
	18. Agnus Dei		
19. Communion			
		20. Postcommunion prayer	
	21. Dismissal (*Ite, missa est*, replaced during Lent and Advent by *Benedicamus Domino*, "Let us bless the Lord")		

*The fortunate four were the sequences for Easter (*Victimae paschali laudes*), Pentecost (*Veni sancte spiritus*), Corpus Christi (*Lauda Sion*, by St. Thomas Aquinas), and the funeral or Requiem Mass (*Dies Irae*). During the eighteenth century a new one (*Stabat mater dolorosa*) was added upon the creation of a new feast, the "Seven Sorrows of the Blessed Virgin Mary." Its text is by the fourteenth-century Italian poet Jacopone de Todi; the music in modern chant books was composed in the nineteenth century by a choirmaster from the Benedictine abbey of Solesmes.

"OLD ROMAN" AND OTHER CHANT DIALECTS

The reintroduction of the Frankish redaction, or adaptation, of the Roman chant back to Rome was to have marked the final stage in the musical unification of Western

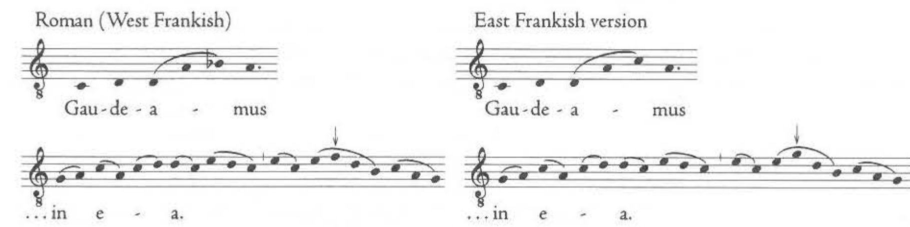
Christendom. It also entailed the importation of the Frankish neumes, which were soon adapted to the staff and became a universal European system of notation. Once neumatic chant manuscripts began to be produced in Rome, however, some surprising anomalies appeared. The most surprising consists of a small group of graduales and antiphoners, produced in Rome between the eleventh and the thirteenth centuries, containing a repertory of chants for the Mass and Office that, while clearly related to it, differs significantly from the standard Franco-Roman "Gregorian" chant. It is, generally speaking, both more formulaic and more ornamental than the standard redaction.

Most scholars agree that this variant repertory, which has been nicknamed the "Old Roman" chant, shares with Gregorian chant a common origin in the Roman church singing of the eighth century. The basic, as yet unanswered, question is whether the Old Roman chant, despite the late date of its sources, represents this original tradition, which later Roman singers (perhaps under Pope Vitalian, who reigned from 657 to 672) or even the Franks themselves radically edited and streamlined; or whether the Old Roman chant is the evolutionary result of three hundred years of oral tradition in Rome itself that took place after the original eighth-century version had gone north.

To put these matters in terms of a bald "either/or" is very much to oversimplify a complicated situation. Yet of the two alternatives just described, the second seems to accord better with what is known of the nature of oral transmission. Repertories, even those available in written form, are never wholly stable but are in a constant, indeed daily state of gradual incremental flux that comes about inescapably with use. Any living tradition, whatever its ostensible aims, is an engine of change.

Thus, although it is much more common, and certainly appropriate, to pay tribute to the Carolingians' centralizing achievement by remarking on the high degree of uniformity among the earliest Frankish manuscripts containing the Gregorian chant, the fact remains that there are also many small discrepancies among them — indeed, between any two of them. There are also distinct, recognized local or geographical "dialects" within the tradition of Gregorian chant. East Frankish (that is, German) sources often turn the semitones in West Frankish (that is, French) sources into minor thirds, possibly reflecting the habits of ears and throats accustomed to a pentatonic (or, more precisely, an *anhemitonic* — that is, semitoneless) folk idiom (see Ex. 2-15).

EX. 2-15 Incipit of the *Gaudeamus* Introit and the climactic phrase of the *Haec dies* gradual in West Frankish and East Frankish versions



To ignore these differences in favor of the uniformity (or, contrariwise, to de-emphasize the uniformity in favor of the differences) is a decision one makes depending

on the kind of story one wants to tell. Stories that emphasize sameness are, in the first place, shorter and more manageable than stories that emphasize difference. The tendency in a book like this is to minimize exceptions and get on with things. But one pays a price for the space or the time one saves. One can form the mental habit of looking for sameness instead of difference, which can lead to an actual (perhaps unconscious) preference for simplifying sameness, and a concomitant (equally unconscious) antagonism toward complicating difference.

In the case of the history of Gregorian chant, such an antagonism toward difference recapitulates on the apparently innocuous plane of historiography the ruthless political program of the Carolingians and the papacy. (This seems to be one reason why the Old Roman chant, whose existence — or persistence — makes for a pesky complication of an otherwise simple and triumphant narrative, has received from many scholars a very negative "aesthetic" assessment.[5]) To generalize even further, antagonism toward difference implies sympathy with the interests of elites. This tendency is particularly characteristic of histories of the fine arts, for the fine arts have always depended upon political, social, and religious elites for support.

That is why it seems appropriate, as a way of ending a chapter about the propitious musical achievements of the ninth- and tenth-century Franks who succeeded in establishing and canonizing one particular repertory of plainchant, briefly to cast an eye at some pockets of resistance — chant repertories that, like the Old Roman, managed to hold out (at least for a while) against the Gregorian tide.

The most successful of these was (or is) the liturgical chant of the archdiocese of Milan, which has lasted to this day, although, like the Gregorian chant, it is falling out of use (or where still used, sung in Italian translation) in the wake of the liturgical reforms instigated by the Second Vatican Council in the 1960s. Milan, as we know, was the fourth-century seat of St. Ambrose, a figure with a legend and an authority equal to St. Gregory's; and so the myth of Ambrose has legitimized the survival of the Milanese (or "Ambrosian") rite and sustained it even as the myth of Gregory legitimized the ascendency almost everywhere else of the Franco-Roman.

Like the Old Roman chant, the Ambrosian entered the written tradition later than the Gregorian; most manuscripts containing it were notated in the twelfth century or later. Whether because of its actual age or because of its longer preliterate tradition, the Ambrosian chant tends to be more melismatic than the Gregorian and, in the Mass propers, more given to responsorial psalmody, in which a soloist sings verses in alternation with melismatic choral refrains, a practice largely confined to the Office in Gregorian psalmody. Since they were never mediated by Frankish editors, the Ambrosian melodies conform only vaguely with the familiar system of medieval "church modes" (the subject of our next chapter).

Also notated in the tenth and eleventh centuries was the chant sung on the Iberian peninsula, sung at least since the seventh century, but called Mozarabic (a term referring to Christians living under Islamic domination) because it continued to be sung after the Moorish invasion of 711, which ushered in a period of Muslim political rule that lasted almost until the end of the fifteenth century. The Mozarabic chant was officially

suppressed in favor of the Gregorian in 1085 following the Christian reconquest of Toledo, the seat of the Spanish church. Hence almost all of the Mozarabic sources are notated in nondiastematic neumes that cannot now be read for their precise pitch content. But even so, the makeup of the liturgy, the style of its constituent melodies (whether syllabic or melismatic, etc.), and hence its relationship to other rites can be assessed; and because they are the largest body of liturgical manuscripts to preserve an authenticated pre-Carolingian Latin rite, the Mozarabic sources have attracted a good deal of scholarly attention, if not as much as they deserve. The rite underwent a spurious nationalistic revival in the late fifteenth century, when the Moors were expelled from Spain. Printed books of "Mozarabic chant" were then prepared, but the melodies they contain (some of them still sung at the Cathedral of Toledo) bear no discernible relation to the neumes in the authentic Mozarabic sources.

The so-called Beneventan chant, a repertory sung at various locales in southern Italy (Benevento, Monte Cassino, etc.) was another rite that lasted just long enough alongside the Gregorian to make it into neumatic notation. Beneventan manuscripts dating from the tenth to the thirteenth centuries survive, but only the oldest layer (mainly consisting of chants for Easter and Holy Week) is free of Gregorian infiltration. Judging from what little remains of it, it is possible that the Beneventan repertory was largely a Latinized import from the Byzantine church. The same may be said for the rite of Ravenna, the ex-Byzantine city that Pepin conquered and bestowed on Pope Stephen II. It survived into the manuscript age in shreds and was mostly extinct by the end of the eleventh century.

WHAT IS ART?

As has been observed frequently and well, the forms of Frankish musical composition, the earliest composition in the literate tradition we habitually call our own, often contradict the assumptions that we habitually make about musical compositions — assumptions we do not usually even know we are making, precisely because they are habitual. We normally neither reflect upon them nor consider alternatives. Very old music often asks us to consider alternatives, and to reflect.

Regarding tropes to the Introit, for example, one might well ask in what sense a series of interpolations into a preexisting piece can itself be considered "a piece." It is neither continuous nor coherent nor unitary nor independent, all of these adjectives naming qualities that we tacitly expect pieces of music to exemplify. Indeed, the Introit itself, once it plays host to the trope, loses its continuity, its coherence, its unity, and its independence. Does it lose its piecehood when invaded by the other? And if its piecehood is so easily lost, how genuine was it to begin with?

Rather than judge the trope or its host on the basis of their conformity with our casual expectations (for such a judgment can only be invidious), we might take the opportunity the trope affords us to critique those expectations. For it would indeed be surprising if musical expectations had not changed over a period of a thousand years.

The first criterion that might be questioned is the notion from which all the others stem — namely, that a piece of music worthy of consideration as such ought to be able

to stand timelessly on its own two feet. What is demanded is that it have an existence independent of its context, its observers, and particularly its users. This is called the principle of autonomy, and it is pretty universally regarded today as a requirement for aesthetic appreciation — that is, for evaluation as a work of art. A trope certainly fails this test, but then so do all the other musical artifacts of its time.

For music only became autonomous when it stopped being useful; and this did not happen until conditions allowed such a thing to happen. Some of those conditions were beginning to exist a thousand years ago. The potential for autonomy existed as soon as the means of recording music in writing existed. Until then, music was only an activity — something you did (or that others did while you did something else). All of the music we have been considering thus far falls into that category. It is both literally and figuratively service music: music for the divine service and music that serves a divine purpose. And yet the divine service was after all a human activity, and the music that both accompanied this activity and gave it shape was a music that functioned in symbiosis with a social framework as yet undivorced from daily life. A lot of music is still like that; we call it "folk." But some music has since been objectified as "art." It happened in stages, of which the first, as we know, was writing. In written form music at last possessed (or could possess) some sort of physical reality independent of the people who made it up and repeated it. It could outlive those who remembered it. (And it could reach us, who no longer have a use for it.) It could be silently reproduced and transmitted from composer to performer, thus for the first time completely distinguishing their roles. With the advent of printing, almost exactly five hundred years ago (and also almost exactly five hundred years after the introduction of music writing), reproduction became easy and cheap. Music could be disseminated much more widely than before, and much more impersonally. In the form of a printed book, music could be all the more readily thought of not as an act but as a thing. Philosophers have a word for this conceptual transformation: they call it *reification* (from *res*, Latin for "thing"). The durable music-thing could begin to seem more important than ephemeral music-makers. The idea of a classic — a timeless aesthetic object — was waiting to be born.

For reasons that we will later need to consider in detail, its birth had to await the birth of "aesthetics," which was a by-product of romanticism, an intellectual and artistic movement of the late eighteenth century. Only then do we encounter notions of transcendent and autonomous art — art that was primarily for contemplation, not for use, and for the ages, not for you or me. Since then the reification of music has reached new heights (and depths) with the advent of actual sound recording, leading to new sorts of music-things like compact discs and digital audiotapes. Thanks to these, music was commercialized in the twentieth century to an extent previously unimaginable, yet it has also been more completely classicalized than ever before. A recording of a piece of music is more of a thing than ever before, and our notion of what "a piece" is has been correspondingly (and literally) solidified.

So if a set of interpolated tropes — or a vagrant melisma, or a now-you-see-it-now-you-don't prosula — challenges or "problematizes" the notion of a piece of music as an

autonomous work of art, we should realize that the problem thus created is entirely our problem, and that it arises out of an anachronism. Our casual assumptions about music and art are no longer congruent with those that motivated the Frankish musicians of a thousand years ago. Realizing this can help us approach more realistically not only the art products of the distant past but also the ones with which we are most familiar — precisely because, in a context of alternative views, the familiar is no longer quite so familiar. When things are no longer taken for granted they can be more clearly and meaningfully observed; when we allow our values to be challenged by different ones, they can be more fully and discerningly understood. They are in fact more our own once we have reflected on them.

None of this should imply that the musicians of a thousand years ago, and the people who heard them, could not enjoy their work sensuously. Indeed, Saint Augustine admits to just such an enjoyment of liturgical singing in his *Confessions*. And yet although he admits *to* it, he does not admit it. Recognizing that "there are particular modes in song and in the voice, corresponding to my various emotions and able to stimulate them because of some mysterious relationship between the two," he maintains a special guard "not to allow my mind to be paralyzed by the gratification of my senses, which often leads it astray."[6] That ambivalence, expressed by Saint Augustine in the fourth century, has remained a characteristic of Western religious thinking about music.

But if the early medieval Christians did not recognize our category of the "aesthetic," which anachronistically implies a "pure" (that is, disinterested) contemplation of beauty, that does not mean that we cannot now apprehend a musical product of the ancient church — say, a troped Introit — with aesthetic appreciation. (Indeed, if we did not know how the process of troping worked, we would never have had an aesthetic problem with a troped Introit; it would just be a longer Introit.) As Saint Augustine implies, and as a hackneyed proverb confirms, the religious or sensuous or aesthetic "content" of works of art (or, to be careful, works capable of being regarded as art) is not an inherent property of such works but the result of a decision taken by the beholder, and defines a relationship between the observer and the observed. When such decisions are not consciously taken but are the result of cultural predisposition, they can easily seem to be attributes of works, not of observers.

By now, the aesthetic reception of ancient service music is well established. Gregorian and medieval chants can be for us (and, indeed, have definitely become) a form of concert music, which we now experience in new surroundings (concert halls, our homes, our cars) and for new purposes. In 1994, the year this chapter was first drafted, a compact disc of Gregorian chants sung by a *schola* of Spanish monks unexpectedly rose to the top of the popular music sales charts, betokening a wholly new way of apprehending (and using) them. Or maybe not so new: the pop reception of chant may not be so much an aesthetic phenomenon as a renewed form, mediated and modified by the pacifying objectives of "New Age" meditation, of the *intellectus* Amalar celebrated at the very beginning of our story.

Be that as it may, putting ourselves imaginatively in the position of the chant's contemporaries gives us access to meanings we might otherwise never experience. And perhaps even more important, it gives us a distanced perspective on our own contemporary world, a form of critical awareness we would otherwise never gain. These are among the most potent reasons for studying history.

Retheorizing Music

New Frankish Concepts of Musical Organization and Their Effect on Composition

MUSICA

When musicians thought "theoretically" about music—that is, made systematic generalizations about it—before the tenth century, they usually did so in terms of the *quadrivium*, the late-classical postgraduate curriculum, in which music counted as one of the arts of measurement. What was measurable was what was studied: abstract pitch ratios (we call them intervals) and abstract durational ratios (we call them rhythms, organized into meters). Reducing music to abstract number was a way of emphasizing what was truly "real" about it, for late-classical philosophy was strongly influenced by Plato's doctrine of forms. A Neoplatonist believed, first, that the world perceived by our sense organs was only a grosser reflection of a realer world, God's world, that we perceive with our God-given capacity for reasoning; and, second, that the purest form of reasoning was numerical reasoning, because it was least limited to what our senses tell us. Education meant the development of one's capacity to transcend the limitations of sense and achieve comprehension of "essences," purely rational, quantitative concepts untouched by any "stain of the corporeal."[1] A medieval treatise on music theory, then, emphasized *musica speculativa* (we may call it Musica for short), "music as reflection of the real" (from *speculum*, Latin for looking glass or mirror).[2] Such a treatise had as little to do as possible with actual "pieces of music," or ways of making them, for such music was merely music for the senses—unreal and (since real meant divine) unholy. The two most-studied late-classical texts on Musica were *De musica* ("About Musica") by none other than St. Augustine (Aurelius Augustinus, 354–430), the greatest of the Fathers of the Christian Church, and *De institutione musica* ("On the organization of musica") by Anicius Manlius Severinus Boethius (ca. 480–ca. 524), the Roman statesman and educational reformer who first proposed the division of the liberal arts curriculum into the trivium and the quadrivium. Both of these books, but especially the one by Boethius (which was virtually rediscovered by the Franks), were mainstays of the Carolingian academic curriculum instituted by Alcuin.

St. Augustine's treatise, completed in 391, is the sole survivor from an enormous projected set of treatises that would have encompassed the whole liberal arts curriculum. It covers nothing but rhythmic proportions (quantitative metrics) and contains a famous definition of music—as *bene modulandi scientia*, "the art of measuring well—"—that

FIG. 3-1 St. Augustine, depicted in an eleventh-century French manuscript of his treatise "On Baptism," disputing in 411 with Felicianus of Musti, a Donatist bishop, who represented a schismatic sect that practiced rebaptism of the righteous (comparable to the "rebirth" of Protestant fundamentalists in later periods).

was quoted as official doctrine by practically every later medieval writer. The treatise ends with a meditation, reminiscent of Plato's dialogue *Timaeus*, on the theological significance of the harmonious proportions with which it deals, and the way in which they reflect the essential nature of the universe. (The *Timaeus*, translated by Cicero, was the only Platonic text known to late-classical Latin writers.) Boethius's treatise covers much more ground than Augustine's. It consists largely of translations from the Hellenistic writers Nicomachus and Ptolemy. (The term "Hellenistic" refers to the Greek-influenced culture that flourished in the non-Greek territories conquered by Alexander the Great.) It thus became the sole source of medieval knowledge of Greek music theory, which included the Greater Perfect System, a scale constructed out of four-note segments called tetrachords; and also the Pythagorean classification of consonances (simultaneous intervals). The treatise also contained directions for representing pitch intervals in terms of spatial ratios, which made possible the construction of "laboratory instruments" called monochords (later to be described in more detail) for demonstrating number audibly, as sound.

While Greek music theory still involved practical music for Nicomachus and Ptolemy (who lived in the second century CE in Arabia and Egypt, respectively), by the time of Boethius the actual music practiced by the ancient Greeks had fallen into oblivion, along with its notation. Accordingly, Boethius's treatise concerns not practical music but abstract Musica, as the author declares quite explicitly.

Boethius inherited two transcendent ideas from the Neoplatonists: first, that Musica mirrored the essential harmony of the cosmos (an idea we have already encountered in Augustine); and, second, that owing to this divine reflection it had a decisive influence on human health and behavior. This was known as the doctrine of *ethos*, from which the word "ethics" is derived. Audible music (*musica instrumentalis*, "music such as instruments produce") is thus only a gross metaphor for the two higher and "realer" levels of Musica, perhaps best translated in this context as "harmony." At the top there was the harmony of the cosmos (*musica mundana*), and in the intermediate position there was the harmony of the human constitution (*musica humana*), which *musica instrumentalis*—depending on its relationship to *musica mundana*—could either uplift or put awry. All of this is most effectively expressed not in words but in a famous

manuscript illumination of the thirteenth century, fully seven hundred years after Boethius (Fig. 3-2). In each of the three panels of this illumination, "Musica"points to a different level of her manifestation. In the top panel Musica points to a representation of the universe with its four elements: earth, air, fire (the sun), and water. The sun and moon further represent the periodic movements of the heavens, an aspect of measurable "harmony." In the middle panel Musica points to four men representing the four "humors," temperaments, or basic personality types[[em dash]]that is, the four types of "human harmony." The proportions of these humors were thought to determine a person's physical and spiritual constitution: the "choleric" temperament was ruled by bile, the "sanguine" by blood, the "phlegmatic" by phlegm, and the "melancholic" by black bile. The four humors mirror the four elements; thus, human harmony is a function of the celestial. In the bottom panel we find musica instrumentalis, the music that we actually hear. Musica is reluctant to point; instead, she raises an admonishing finger at the fiddle player, obviously no disciple of hers but a mere sensory titillator. Whatever its relation to actual sounding music, the idea of Musica had remarkable staying power.

One who has mastered Musica, Boethius concluded, and only such a one, can truly judge the work of a musician, whether composer or performer. The composer and performer are after all concerned only with music, a subrational art, while the philosopher alone knows Musica, a rational science. The stringent differentiation between music and Musica, and their relative evaluation, were easily translatable from Platonist into Christian terms and remained standard in music treatises until the fourteenth century and even beyond. The idea that music was ideally a representation of Musica remained current in certain circles of musicians, and in certain genres of music, even longer than that.

At the height of the Carolingian renaissance, the liberal arts were studied at the great Benedictine abbeys, such as St. Gallen (where the Irish monk Moengal instructed the likes of Notker and Tuotilo), St. Martin at Tours (where Alcuin himself taught beginning in 796), St. Amand at Tournai (now in the southern, French-speaking part of Belgium), and Reichenau (on an island in Lake Constance, Switzerland). The libraries of all of these monasteries contained copies of Boethius's treatise on

FIG. 3-2 Frontispiece of a mid-thirteenth-century manuscript—Florence, Biblioteca Medicea Laurenziana, MS Pluteo 29.I—representing the musical cosmology described by Boethius in *De institutione musica*.

music, and Neoplatonist ideas about Musica were incorporated as theological underpinning into liturgical music study. At the same time, however, the pressures of liturgical reorganization and chant reform created the need for a new kind of theoretical study, one that served the purposes not of theological or ethical indoctrination but of practical music making and memorization. Beginning very modestly, this new theoretical enterprise, and the documents it generated, led to a complete rethinking of the principles not of Musica but of actual music, as we understand the term today. Its repercussions were nothing short of foundational to the tradition of "Western music," however we choose to define that slippery term.

TONARIES

Among the earliest documents we have for the Carolingian reorganization of the liturgy and the institutionalization of Gregorian chant are the manuscripts, which begin to appear soon after Pepin's time, that group antiphons (represented by their incipits or opening words) according to the psalm tones with which they best accord melodically. These lists, which began to appear long before the Franks had invented any sort of neumatic notation, at first took the form of prefaces and appendices to the early Frankish graduals and antiphoners that contained the texts to be sung at Mass and Office. (The earliest appendix of this kind is found in a gradual dated 795.) By the middle of the tenth century, these lists had grown large enough to fill separate books for which the term *tonarius* or "tonary" was coined.

These books served an eminently practical purpose, since in every service newly learned antiphons had to be attached appropriately to their full cursive psalms (in the Office) or at least to selected stichs (in the Mass) as a matter of basic operating procedure. In the Vespers service, for example, there were for any given day of the week five unchanging "ordinary" psalms and literally hundreds of ever-changing "proper" antiphons that had to be matched up with them in daily worship. To achieve this practical goal, large stylistic generalizations had to be made about the antiphons on the basis of observation. Classifying the Gregorian antiphons was thus the earliest European exercise in "musical analysis," analysis being (literally and etymologically) the breaking down of an observed whole (here, a chant) into its functionally significant parts. The generalizations thus produced constituted a new branch of "music theory."

The earliest analysts and theorists, like the earliest composers of medieval chant, were Frankish monks. The most extensive early tonary was the one compiled around 901 by Regino of Prüm, the abbot of the Benedictine monastery of St. Martin near the German town of Trier. It contains the incipits of some thirteen hundred antiphons as well as five hundred introits and offertories (performed in those days with psalm verses), all keyed to the ending formulas (*differentiae*) of the eight psalm tones. To achieve this abstract classification of melody types, the compiler had to compare the beginnings and endings of the antiphons with those of the psalm tones.

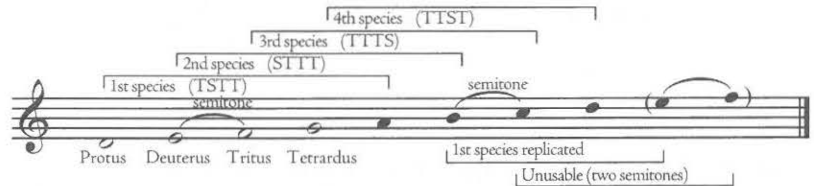
In effect, a corpus of actual melodies inherited from one tradition (presumed to be that of Rome, the seat of Western Christianity) was being compared with, and assimilated to, an abstract classification of melodic turns and functions imported

from another tradition (the *oktoechos*, or eight-mode system, of the Byzantine church). The result was something neither Roman nor Greek but specifically Frankish—and tremendously fertile, a triumph of imaginative synthesis. What was actually abstracted through this process of analysis by observation and assimilation was the intervallic and scalar structure of the chant.

Specifically, antiphons were compared with psalm tones to see how the interval was filled in between their ending note (*finalis*) and the pitch corresponding to the psalm tone's reciting tone (*tuba*), normally a fifth above. (Since most often the last note of a Gregorian chant is the same as the first, Regino actually classified antiphons—or so he said—by their first notes; the concept was refined slightly later.) There are four ways a fifth can be filled in within the aurally internalized diatonic pitch set, with its preset arrangement of tones (T) and semitones (S). In the order of the tonaries these were (1) TSTT, (2) STTT, (3) TTTS, and (4) TTST. What is identified in this way are scale degrees. The notion of scale degrees, and their identification, thus constitutes from the very beginning—and, one is tempted to add, to the very end—the crucial "theoretical" generalization on which the concept of tonality in Western music rests.

These intervallic "species," as they came to be called, could be demonstrated in various ways. One method was by the use of the monochord, the medieval theorist's laboratory instrument, which consisted of a sound-box surmounted by a single string, under which there was a movable bridge. The surface of the box was calibrated, showing bridge placements vis-à-vis one end of the string or the other, by means of which one could exactly measure off (or "deduce") the various intervals. Another, more abstract, way of demonstrating the species was notation—at first by means of Daseian signs as illustrated in the previous chapter (see Fig. 2-2), later (from the eleventh century) by means of the staff. When one writes things down, one can demonstrate or discover that the diatonic scale segment descending from A to D (or ascending from A to E) corresponds with the first species of fifth listed above; that the segment descending from B to E corresponds to the second species; that the segment descending from C to F corresponds to the third species; and that the segment descending from D to G corresponds with the fourth (Ex. 3-1).

EX. 3-1 The four species of fifth and the "four finals"



The ending notes of these four species-defining segments—D, E, F, and G—were dubbed "the four finals" in Frankish tonal theory and named (in keeping with the Byzantine derivation of the mode system) according to their Greek ordinal numbers: *protus* (first), *deuterus* (second), *tritus* (third), and *tetrardus* (fourth) respectively. (The fifth A–E was considered a doubling, or transposition, of the first segment; hence

A was functionally equivalent to D as a final.) Full correspondence between the chant-classification and the preexisting eightfold system of psalm tones was achieved by invoking the category of *ambitus*, or range. Chants ending on each of the four finals were further broken down into two classes. Those with the final at the bottom of their range were said to be in "authentic" tonalities or modes, while those that extended lower than their finals, so that the final occurred in the middle of their range, were called "plagal," from the Greek *plagios*, a word derived directly from the vocabulary of the *oktoechos*, where it referred to the four lower-lying scales.

Thus the four finals each governed two modes (*protus authenticus*, *protus plagalis*, *deuterus authenticus*, and so on), for a total of eight, in exact accordance with the configuration (but only in vague accordance with the content) of the eightfold system of psalm tones. In elaborating this system, the basic fifth (or modal *pentachord*, from the Greek) whose diatonic species defined the final's domain was complemented with a fourth (or *tetrachord*) to complete the octave. (According to the terminology of the day, the tetrachord was said to be *conjunct*—rather than disjunct—with the pentachord because its first pitch coincided with the last one in the pentachord rather than occupying the next scale degree.) The authentic scales were those in which the pentachord was placed below its conjunct tetrachord, so that the final was the lowest note. In the plagal scales the tetrachord was placed below the pentachord, so that the final came in mid-range. The result was a series of seven distinct *octave species* or scales with particular orderings of the diatonic tones and semitones. There are only seven possible octave species but eight modes; hence the last scale in Table 3-1 (tetrardus, plagal) has the same order of intervals as the first (protus, authentic), but they are split differently into their component pentachord and tetrachord. Although their octave species coincide, the modes do not, for they have different finals: D and G, respectively.

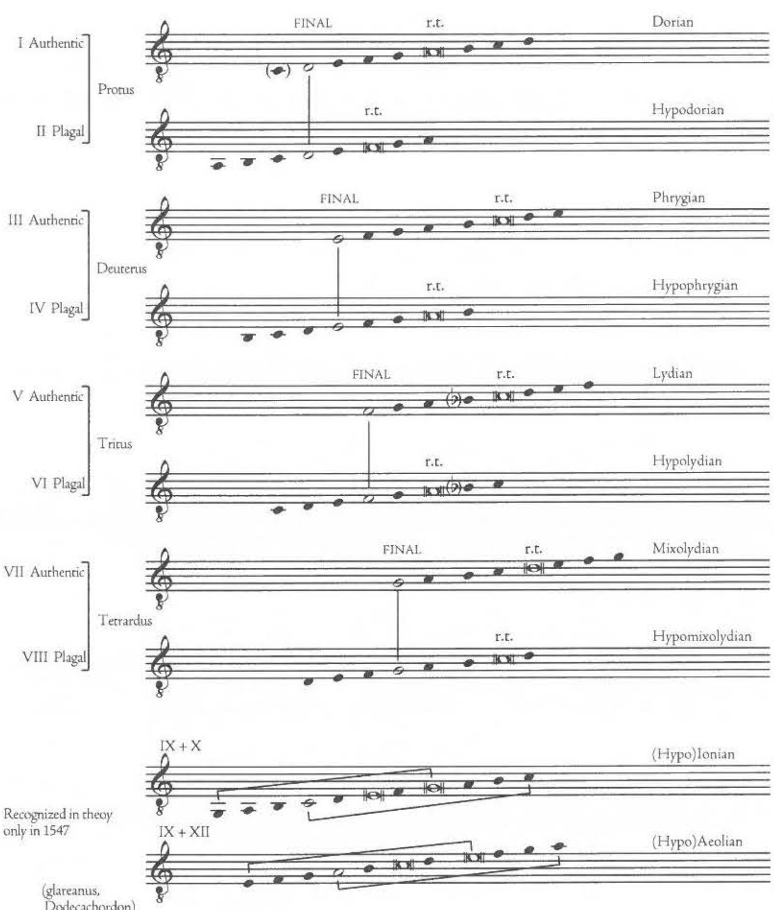
TABLE 3-1 Modes and Octave Species

		TETRACHORD	—	PENTACHORD	—	TETRACHORD
Protus (D)	Authentic			T-S-T-T	—	T-S-T
	Plagal	T-S-T	—	T-S-T-T		
Deuterus (E)	Authentic			S-T-T-T	—	S-T-T
	Plagal	S-T-T	—	S-T-T-T	—	
Tritus (F)	Authentic			T-T-T-S	—	T-T-S
	Plagal	T-T-S	—	T-T-T-S		
Tetrardus (G)	Authentic			T-T-S-T	—	T-S-T
	Plagal	T-S-T	—	T-T-S-T		

In Ex. 3-2 this table is translated into modern staff notation, giving the full array of so-called "medieval church modes." They will henceforth be numbered from one to eight, as they are in the later Frankish treatises, and they will be given the Greek geographical names that the Frankish theorists borrowed from Boethius, the authority of authorities. Boethius had adopted these names from late Greek (Hellenistic) sources, where they had referred not to what we would call modes but to what the Greeks called *tonoi*, transpositions of a single scale rather than different diatonic scales. Thus the familiar Greek nomenclature of the medieval modes was actually a misnomer, first

perpetrated by an anonymous ninth-century treatise called *Alia musica* (literally, "More about Music"); but there is not much point in trying to rectify that now. (Note that the Greek prefix *hypo-*, attached to the names of the plagal scales, is roughly synonymous with the word plagal itself: both mean "lower.") Ex. 3-2 also includes the *tubae* of the corresponding psalm tones, for these were sometimes claimed by contemporary theorists to pertain to the church modes as well. The tuba of an authentic mode lies a fifth above the final, as already observed in chapter 1. The tuba of a plagal mode lies a third below that of its authentic counterpart. Note that wherever, according to these rules, the tuba would fall on B, it is changed to C. This was evidently because of an aversion to reciting on the lower note of a semitone pair. Note, too, that the tuba of the fourth tone is A rather than G by the regular application of the rules: it is a third lower than its adjusted counterpart (C in place of B transposes to A in place of G).

EX. 3-2 The eight medieval modes



Perhaps the most important thing to bear in mind regarding this array of medieval modal scales is that the staff positions and their corresponding "letter names" *do not* specify actual pitch frequencies, the way they do in our modern practice. Thus one must try to avoid the common assumption that the Dorian scale represents the piano's

white keys from D to D, the Phrygian from E to E, and so on. Rather, the "four finals" and their concomitant scales represent nothing more than the most convenient way of notating intervallic patterns, relationships between pitches that can be realized at any actual pitch level, the way singers (unless cursed with "perfect pitch") can at sight — or rather, by ear — transpose the music they are reading, wherever it happens to be notated, to a comfortable *tessitura* or "placement" within their individual vocal ranges. What we are now conditioned to regard as fixed pitch associations (e.g., "A-440") were at first no more than notational conventions.

If this is a hard idea to get used to, imagine a situation in which all pieces in the major were written "in C" and all pieces in the minor "in A," regardless of the key in which they would actually be performed. Only instrumentalists, whose physical movements are coordinated with specific pitches, or singers with perfect pitch, who have memorized and internalized the relationship between specific frequencies and the appearance of notated music, would be seriously discommoded by such an arrangement. Such musicians can only transpose by mentally changing clefs and signatures. And as we shall see, it was the rise of an extensive independent repertory of instrumental music in the seventeenth century that brought about our modern "key system," in which actual pitches were specified by notation and in which key signatures mandated specific transpositions of the standard scales.

A NEW CONCEPT OF MODE

Thanks to the work of the "tonarists" who coordinated the Roman antiphons with the psalm tones, and the theorists who drew general conclusions from the tonarists' practical observations, a new concept of mode arose. Instead of being a formula-family, a set of concrete, characteristic turns and cadences arising out of long oral tradition, a mode was now conceived abstractly in terms of a scale, and analytically in terms of functional relationships (chiefly range and finishing note or final). We owe this change, on which all our own theoretical notions of musical "structure" ultimately depend, and the classifications and terminology outlined above, primarily to the work of two Frankish theorists of the ninth century.

Aurelian of Réôme, the earlier of them, was a member of the Benedictine abbey of St. Jean de Réôme in what is now the Burgundy region of France, southeast of Paris. His treatise, *Musica disciplina* ("The discipline of music"), was completed sometime around 843. Beginning with its eighth chapter, subtitled "De octo tonis," it consists of the earliest description (or at least the earliest naming, for it is impressionistic and nontechnical) of the eight church modes with their pseudo-Greeky tribal names. Aurelian changed the order of the tones from what it was in Byzantine theory. Instead of grouping the four authentic modes together and following them with the four plagal modes, Aurelian paired authentic modes with plagal ones that shared the same finals, thus enhancing the role of what we now call the "tonic" in establishing a tonality. Aurelian's chapter on psalm recitation contains the oldest extant notations in early Frankish neumes.

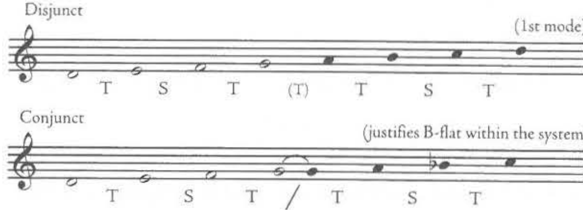
Hucbald (d. 930), a monk from the abbey of St. Amand, was the real genius of medieval modal theory. His treatise, *De harmonica institutione* ("On the principles of music"), thought to have been completed around 880, is a far more original work than Aurelian's and far less dependent on the received academic tradition. It was the earliest treatise to number the modes, following the order established by Aurelian, straight through from one to eight. It is also the earliest treatise we have that replaces the relative-pitch or interval/degree nomenclature of ancient Greek music — the so-called Greater Perfect System, transmitted by Boethius — with the alphabet letter names still in use. The name of the lowest note of the Greek system, *proslambanomenos*, was mercifully shortened to "A," and the rest of the letters were assigned from there. Hucbald did not, however, recognize what we now call "octave equivalency," but continued the series of letters through the full two-octave compass of the Greeks, all the way to P. Modern usage, in which A recurs after G and so on, was established by an anonymous Milanese treatise of ca. 1000 called *Dialogus de musica*, once attributed erroneously to Abbot Odo of Cluny.

Hucbald sought to ground his theory as far as possible in the chant itself. He grasped that the "four finals" used in actual singing formed a tetrachord in their own right (T – S – T), and he showed how the scale of the first mode could be built up from it by means of disjunct replication: TST – (T) – TST. He defined the four finals in a manner that resonates fully with our modern notion of a tonic: "Every song," he wrote, "whatever it may be, however it may be twisted this way and that, necessarily may be led back to one of these four; and thence they are termed 'final,' because all things which are sung may take an ending in them." By relocating the tetrachord of the four finals (D – E – F – G) on its fourth note rather than its first (or, to speak technically, by conjunctly replicating it: T – S – T/T – S – T), he deduced the tetrachord G – A – B♭ – C.

FIG. 3-3 The Abbey of St. Amand, where Hucbald lived and worked, as it looked in the eighteenth century. This painting was made by J. F. Neyts shortly before the abbey was destroyed, an early casualty of the French Revolution.

Thus he was able to rationalize within the new modal system the old singer's practice of adjusting the note B to avoid the tritone with F. In effect he admitted two versions of B (the hard and the soft, as they came to be known) into the system (Ex. 3-3) to account for the pitches actually called for by the Gregorian melodies.

EX. 3-3 Disjunct and conjunct replication of the T-S-T tetrachord (the tetrachord of the four finals) as described by Hucbald



MODE CLASSIFICATION IN PRACTICE

As continually emphasized in this discussion, modal theory arose out of an attempt at classifying the existing Gregorian chant, particularly the antiphons, as an aid to mastering an enormous body of material that had somehow to be committed to melodic memory. Modal theory was thus one of the very many aspects of medieval music-making that originated, very humbly, as *mnemotechnics* (memory aids). Every chant was eventually assigned a modal classification in the tonaries, and eventually in the graduals and antiphoners themselves, including the modern chant books from which some of the examples in the previous chapters were taken. Let us now cast an eye back over some of those examples and see how modal classification worked in practice.

In Ex. 1-1 an actual pairing of antiphon and psalm tone was given. Even though the psalm tone covers no more than the modal pentachord (D descending to G, as it was first theoretically abstracted), the use of C as the tuba identifies the tone as plagal, not authentic (Ex. 3-1). The antiphon is even easier to identify as being in the eighth mode, the Hypomixolydian: its final is G, but the range extends down as far as the D below (and exactly as far up as the D above), establishing the octave species as D to D with cadence in the middle, on G.

Approaching the antiphon in Ex. 1-2 with a tonarist's eye, we notice that it basically outlines the pentachord A-down-to-D, and dips down one note below the final into the lower tetrachord. We have no hesitation, therefore, in assigning it to the second mode, the Hypodorian. And yet the Introit antiphon in Ex. 1-4 is unequivocally assignable to mode 1, the authentic Dorian, even though it, too, frequently makes use of the lower neighbor to the same final. That is because the melody extends above the limits of the modal pentachord as well, reaching the C above. The final is thus clearly located near the bottom of the total range. The psalm verse, chosen expressly to conform to the antiphon, confirms the modal classification. Besides the tuba on A, note the similar approaches to the high C. Here we have a case of modal affinity of the older kind (involving turns of actual phrase) working in harness with the newer classification: the very thing the tonarists and theorists sought to ensure.

As a matter of fact the compilers of the tonaries, and the theorists who followed them, made special allowance for the lower neighbor to the final (called *subtonium modi*), especially in the *protus* or Dorian tonality. As the anonymous author of *Alia musica* put it, "and if a note is added on to some song, above or below the species of the octave, it will not be out of place to include this as being in the tune, not out of it." Thus we are to regard the low C in Ex. 1-4 to be a "note added on below" rather than a full-fledged member of the modal tetrachord. This seeming exception to the rule about mode classification was based on the observed behavior of mode 1 antiphons, as they existed in Pope Gregory's inspired (and therefore not-to-be-tampered-with) chant. Again we see the influence, even within the characteristically rationalistic Frankish mode theory, of the older concept of mode as formula-family.

The Offertory antiphon in Ex. 1-5, although it ends on E, is only arbitrarily assigned to mode 4 (rather than 3) by the tonarists. Clearly, it was (orally) composed with no awareness of the eventual criteria of modal propriety, for its range partakes of tetrachords both below and above the tetrachord that descends to the final, and it "repercusses" more on F than on either of the "Phrygian" reciting tones. Many of its phrases, moreover, seem to belong to a different octave species altogether. Consider the second ("ut palma florebit"), for example: it begins and ends on D, and it introduces B-flat as upper neighbor to A, emphasizing the A as an apparent upper limit to a pentachord. This phrase by itself would unequivocally be assigned to the first mode. Thus, where the Introit in Ex. 1-4 was a case of close correspondence between the old Roman melody and the new Frankish theory, Ex. 1-5 shows a poor fit between the two. Both hits and misses are equally fortuitous, for the chant evolved long in advance of the theory and quite without premonition of it.

Proof of that fortuity comes in Ex. 1-6, the Alleluia. Phrases that closely resemble that second phrase of Ex. 1-1d abound here (for example, the famous melisma on *cedrus*). Since there is no contradiction between the internal phrases and the final cadence, it is easy to assign the melody to mode 1. (Here is the reasoning: the lower neighbor to the final counts less as a representative of a complementary tetrachord than does the upper neighbor to the fifth above; hence we may conceptualize the octave species with the pentachord below the tetrachord; and in additional confirmation, the vast preponderance of melody notes lie above the final, establishing the mode as authentic.) With the two Graduals in Ex. 1-7, we are back in ambiguous territory. The final, A, is accommodated to the theory of the four finals by the back door, as we have seen, on the basis of the congruence between its modal pentachord (TSTT) and that of the protus final, D. Its complementary tetrachord (STT) differs from that of the protus modes, however, resembling the deuterus instead. So the assignment of these melodies to the second mode is more or less arbitrary, especially in view of that pesky B-flat—over *cedrus* in Ex. 1-7a, and over the very opening word, *Haec*, in Ex. 1-7b—preceding a cadence on A that would seem to invoke (if anything) a transposed deuterus or Phrygian scale. There is a considerable gap here between the reality of the chant and the theoretical abstraction of a modal system.

It was noted in chapter 1 that these Graduals come from an old, distinguished formula-family that is suspected of being among the most ancient on record. Thus it

is really no surprise that its melody conforms so little with a body of generalizations (that is, a theory) that arose many centuries later—the more so as Graduals, not being antiphons, were not much taken into account by the tonarists. The Frankish mode theory did have a way of accounting for melodies that were wayward by its standards: they were classified as being of "mixed mode" (*modus mixtus*), meaning that some of their constituent phrases departed from the basic octave species of the melody as a whole. But that is just another effort to dispel an anomaly by giving it a name—something on the order of an exorcism.

MODE AS A GUIDE TO COMPOSITION

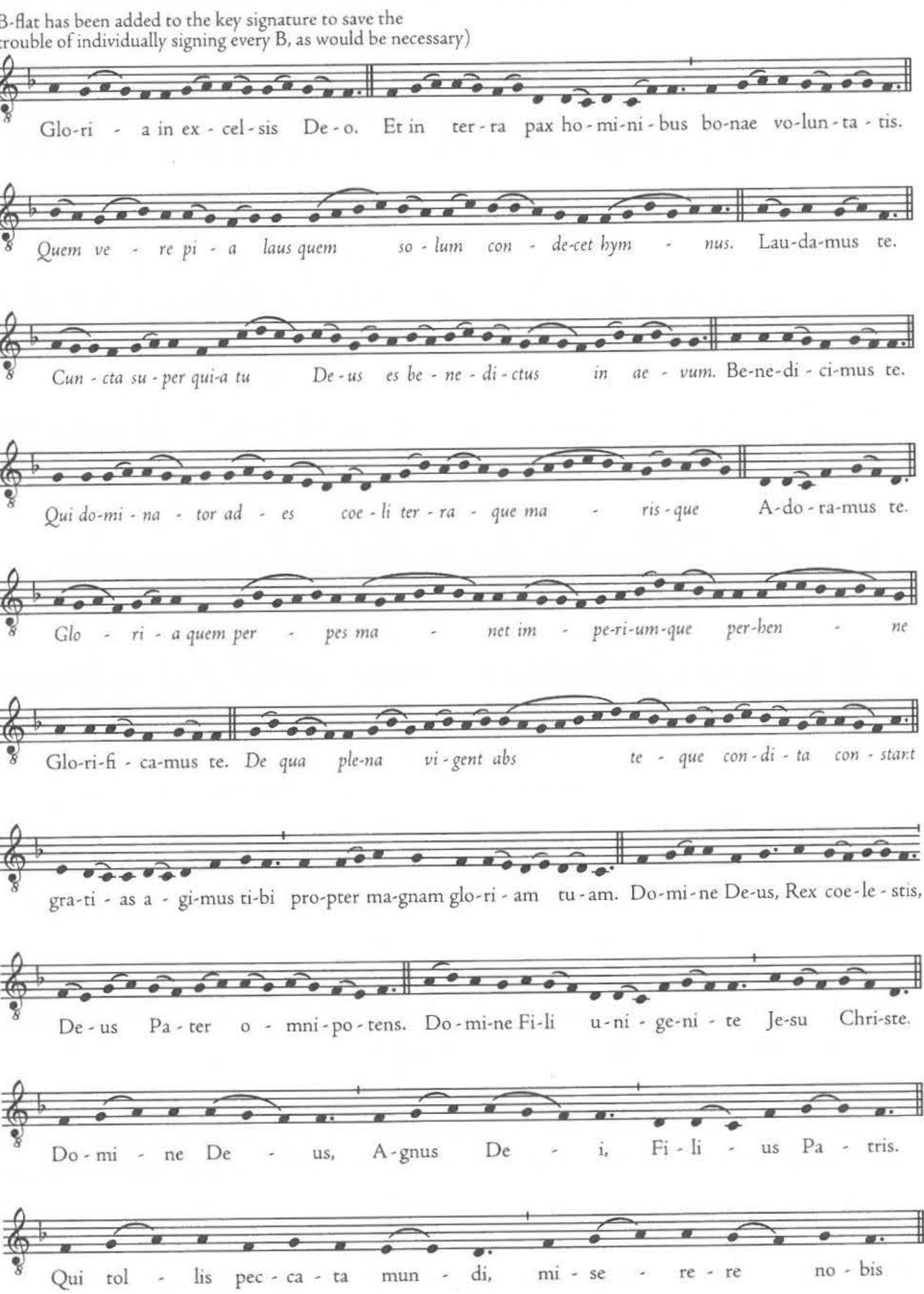
What a difference we will observe when we look at melodies written after the Frankish chant theory had been formulated! For that theory, modest in its intention, was huge in its effect. While it may have begun as a way of improving the efficiency with which a body of ancient music was mastered and memorized, it quickly metamorphosed into a guide to new composition, achieving a significance its early exponents may never have envisioned for it. From a description of existing music it became a prescription for the music of the future.

The first composer whom the chant theory "influenced" may have been Hucbald himself, its chief early exponent. His surviving compositions include a set of antiphons for the Office of St. Peter, as well as the famous set of *laudes* or Gloria tropes. They are all modally systematic in a way that earlier chant had never been. The Office antiphons, for example, are arranged in a cycle progressing through the whole array of church modes in numerical order—Hucbald's own numerical order! The trope, *Quem vere pia laus*, does not employ the common melodic formulae of the existing Gloria chants—in other words, it eschews the old concept of mode as a formula-family—but instead exemplifies the more abstract features of scalar construction.

In Ex. 3-4, Hucbald's set of laudes is embedded in a Gloria that shares its mode (the sixth, or Hypolydian) and seems, on the basis of its sources as well as its style, to date from within, or shortly after, Hucbald's lifetime. In both, the tonal focus is sharp, with the final, F, located in the middle of the melody's range, providing a clear line of demarcation between the modal pentachord and the plagal tetrachord below. Hucbald uses three pitches to end the constituent (and, remember, nonconsecutive) phrases of his laudes. Only the last ends, as might be expected, on the final. A plurality, five, end on the reciting tone, namely A. The other four, which end on G, seem to have picked up the influence of some secular genres, especially dance songs, which, as we will see in the next chapter, frequently use the "supertonic" degree to create half (or "open") cadences, to be fully closed by the final at the end of the next phrase of the original chant. That is what happens in Hucbald's second, third, and fourth phrases, all of which end on G. The second phrase is answered and "closed" by the full cadence on "Benedicimus te"; the fourth by the close on "Glorificamus te." The one in between (*Qui dominator* . . .) is answered strategically by "Adoramus te" with a cadence on D, so that a tonally closed ABA pattern sets off the three parallel acclamations from the rest of the Gloria. This kind of tonally articulated formal structure was the great Frankish innovation.

The same regular features can be discerned in many of the trope melodies discussed in chapter 2. That is because the authors of tropes had to be music analysts as well as poets and composers. They had to determine and reproduce the mode of the chant to which they were setting their prefaces and interpolations, whether or not they actually intended to imitate the style of the earlier chant. (In practice, it seems, some did so intend and some evidently preferred their new melodies to stand out from the old;

EX. 3-4 Gloria in mode 6, with laudes by Hucbald of St. Amand (texted in italics)



EX. 3-4 *(continued)*

Qui tol-lis pec-ca-ta mun - di, su - sci - pe de-pre-ca - ti - o-nem no - stram.

Es qui - a tu cle - mens mi - tis pi - us at - que be - ni - gnus.

Qui se - des ad dex - te - ram Pa - tris, mi - se - re - re no - bis.

Stat ti - bi nam pro-pri-um mi-se - re - ri vel - le mi - sel - lis. Quo-ni-am tu so-lus san - ctus.

San - cti - fi-cans o - mnes tu - a quos ti-bi gra - ci - a ne-ctit. Tu so-lus Do-mi-nus,

Tri - na ge - nu - fle - ctit cu - i sub - di - ta ma - chi - na re-rum.

Tu so-lus al - tiss-i-mus Je-su Chri - ste *Cun-cta vi - dens et cun-cta re - plens*

per se - cu - la re-gnans.

Cum san - cto spi - ri - tu in glo - ri - a De - i Pa-tris. A - men.

all, however, understood the requirement of modal conformity.) Consider the preface to the Easter Introit in Ex. 2-8a. The mode of the Introit antiphon itself is given as the fourth (*Deuterus plagalis* or Hypophrygian), and one can immediately see why: it begins with D, a note in the lower tetrachord (and the first phrase, "Resurrexi," actually cadences there); the range will later touch bottom on the C below that. The highest note in the melody is A, which means that the full modal pentachord above E is never expressed at all. Only the final cadence on E (something that could hardly be predicted at the outset) justifies the assignment of the melody to the Phrygian tribe. The gap between the reality of the chant and the utopia of mode theory yawns.

"Psallite regi," the little prefatory trope shown in Ex. 2-8a, resolutely closes the gap. It begins on E, precisely so that the beginning of the newly augmented antiphon will conform to the end (and so that the end, so to speak, can now fulfill the implications of the beginning). It sounds the B above the final so that the full modal pentachord of mode 4 is represented. It expressly avoids a modal cadence at the end, of course, so that

it will flow imperceptibly into the antiphon it is introducing. But it has very perceptibly enhanced the conformity of the actual Gregorian antiphon with the Frankish definition of its mode.

Although it is the shorter and the simpler of the introit tropes for Easter shown in chapter 2, "Psallite regi" is by far the most radical in its transformation of the melody to which it is appended. Ex. 2-8b is more obviously an imitation of the Gregorian antiphon. Its prefacing phrase begins, like the antiphon, with a feint toward D, and ends, again like the antiphon, with a cadence on the final. It even mimics the Introit's ambitus (C up to A) instead of, like Ex. 2-8a, completing the modal pentachord with a B.

The *Quem quaeritis* trope (Ex. 2-9) is modally whimsical. It actually takes the initial feint to D at its word, so to speak, and prepares it with an actual melody in mode 2 (Hypodorian). It is the descent to the bottom of the lower tetrachord at the very beginning of the "Interrogatio" that establishes the melody as plagal, even though the "Responsorium," as befits the heavenly voice that sings it, ascends into the upper tetrachord (though not all the way to the top of it). Melodies that encompass more than two primary scale segments (or that have ranges of more than an octave) exemplify what medieval theorists called *commixtio*, or *modus commixtus*. The term is often "translated" into a nonexistent English cognate: "commixture" or "commixed mode." In any case, it needs to be distinguished from the *modus mixtus* defined above. "Mixed mode" denotes a mixture of different octave species. "Commixture" refers to the extension of a melody so as to encompass both authentic and plagal scales.

The hymn melodies in Ex. 2-7 were chosen, among other reasons, to exemplify "modern" Frankish melodies in various modes. *Ave maris stella* (Ex. 2-7a) is a wonderfully clear example of post-Gregorian Dorian melody. Its composer most assuredly knew all about abstract modal syntax, and about the relationship between antiphon modes and psalm tones as laid out in the tonaries. Note how the first phrase leaps up from the final to the upper tetrachord, which it fully describes, meanwhile emphasizing the note dividing the pentachord and tetrachord (the tuba, so to speak) with a turn figure. The second phrase completely describes the pentachord. The third phrase cadences on the "note added on below," introducing it with a veritable flourish. And the fourth phrase returns to the uncluttered pentachord for the final cadence. This kind of clearly delineated structure can hardly be found in the original corpus of Gregorian chant. It is the product of "theory," and of a single composer's shaping hand. For the first time, it seems, we are looking at a piece not merely maintained but composed within the literate tradition—composed, that is, in the sense we usually have in mind when we use the word.

Pange lingua (Ex. 2-7b), in the third mode (authentic Phrygian), also gives its "modernity" away, this time by giving cadential emphasis to the note C, high above the final. (Third mode melodies in the original Gregorian corpus often emphasize this C, but not as a cadence.) By the time *Pange lingua* was composed, theoretical rationalization had made such emphasis common. The same point may be made, even more emphatically, about *Veni creator spiritus* (Ex. 2-7c). It is assigned to the eighth mode (rather than the seventh), but not for any reason having to do with its ambitus or

final. The final, G, is common to all *tetrardus* melodies. The range could be described as the modal pentachord with a "note added on" either above or below, again suggesting that the authentic and the plagal scales have an equal claim on the tune's allegiance. What clinches things for the plagal is the cadential emphasis on C, the tuba of the corresponding psalm tone. (The authentic tuba, D, also gets a cadence, but C gets two.)

Thus these hymn melodies graphically illustrate the synthesis of Roman and Byzantine elements that made up Frankish mode theory and its perhaps unforeseen compositional influence. (The regularity of structure in the hymns may of course also reflect the influence of popular genres that have left no written trace and are consequently beyond our historical ken.) The style and the effect of these tunes is altogether different from those of the true Gregorian corpus. Where the older melodies were discursive, elusive, and ecstatic, these are dynamic, strongly etched, and therefore highly memorable (as congregational songs need to be). The influence of "theory" on them was in no way an inhibition. Quite the contrary; it seems to have been an enormous spur to the Frankish musical imagination, leading to a great burst of indigenous musical composition in the north of Europe, contributing a new (and lasting) kind of musical beauty.

To savor this new Frankish style at its best and most characteristic, let us have a look at a melody composed around 1100, after mode theory had a century or more in which to establish itself in singers' consciousness: Kyrie IX, which bears the subtitle *Cum jubilo* ("with a shout") after its perhaps original texted form (Ex. 3-5). Never yet have we seen a melody that, by so clearly parsing itself into the "principal parts" of its mode, advertises the fact that the mode, as a concept, preceded and conditioned the composition of the melody.

EX. 3-5 Kyrie IX, *Cum jubilo*

Consider first the opening threefold acclamation. The first eight notes of the opening "Kyrie" exactly stake out the modal pentachord. The rest of the phrase decorates the final with the characteristic "Dorian" lower neighbor. The second acclamation begins by staking out the lower tetrachord just as the first had staked out the pentachord. It then proceeds like the first. The third is a full repetition of the first. Summing up the pattern

of repetitions, we find that the opening threefold litany mirrors in melodic microcosm the shape of the entire ninefold text: a melodic ABA or "sandwich" form nested within a textual ABA (threefold Kyrie/threefold Christe/threefold Kyrie). At the same time, the melisma on "-e," plus the "eleison" (into which the melisma flows smoothly by vowel elision), are the same every time, reflecting the old practice of choral refrains. Hence, the overall shape of the opening threefold acclamation could be represented as A(x) B(x) A(x). So far the melody conforms closely to the principal parts of mode 2, the Hypodorian (with the refrain dwelling significantly on F, the tuba).

The first "Christe," consisting for the most part of turn figures around A, substitutes the tuba of the authentic Dorian for that of the plagal and similarly emphasizes it; this gives us an inkling that the chant is going to encompass a mixed mode. As to overall shape, the threefold Christe is also cast, like the previous threefold acclamation, in an ABA design that mirrors in melodic microcosm the overall form of the text. But note one playful detail: what fills the Christe sandwich is a variant of what was the "bread" in the Kyrie sandwich.

The concluding threefold acclamation begins by confirming the impression that this will be a mixed-mode chant. Compare the new intonation on "Kyrie" with the "filling" of the first Kyrie sandwich. It is the same motive an octave higher, now staking out the upper tetrachord and completing the authentic Dorian scale. (Because of the many repetitions this motive will receive in the higher octave, the complete melody is classified as a mode 1 chant.) And now notice that the continuation on "eleison" is a variant of the continuations of the first and last "Christe" phrases. This brings about another playful switch of functions between "filling" and "bread," and it also means that the "eleison" phrases following the first and last "Christe" phrases were another detachable refrain, alternating with the first. Wheels within wheels!

The last threefold acclamation, like the others, is a sandwich; its filling is the same as that of the second sandwich (namely a variant of the bread in the first). The final acclamation is augmented by an internal melisma that repeats the melody of the entire first Kyrie; but then, in order to end on the final rather than the tuba, the second Kyrie is recapitulated, too, so that the last word is sung to the original "eleison" refrain. The entire subtly interwoven and integrated formal scheme looks like Table 3-2.

Thus a sort of "rondo" scheme (***AbAcAcdAdA***) crosscuts the trio of sandwiches, and a single dynamic pitch trajectory, from the bottom of the Hypodorian tetrachord

TABLE 3-2 Structure of Kyrie IX

A.	Kyrie eleison	A(x)		
	Kyrie eleison	B(x)		
	Kyrie eleison	A(x)		
B.	Christe eleison	C(y)	=	A
	Christe eleison	A′(x)		B
	Christe eleison	C(y)		A
A.	Kyrie eleison	D(y′)	=	A
	Kyrie eleison	A′(x)		B
	Kyrie eleison	D(y′) – D(y′) – A′(x)		A

to the top of the authentic Dorian tetrachord, seems to describe a progression from darkness to light (or, in terms of mood, from abjection to rejoicing) that accords with the implied (or hoped-for) answer to the prayer, the more so as the peak of the melodic range coincides with the peak of melismatic "jubilation." Finally, the melody's tonal regularity, with its alternation of cadences on final and tuba a fifth apart, was a permanent "Western" acquisition. It would outlast the modal system that gave rise to it.

For a final indication of the Frankish passion for formal rounding and regularity, compare the concluding item in the Ordinary formulary initiated by Kyrie IX, the dismissal formula (Ex. 3-6). It is set to the same melody as the opening "Kyrie eleison" in Ex. 3-4, the phrase designated "A(x)" in Table 3-2, which recurred throughout the litany and came back out of retirement to conclude it. The whole Mass service is thus effectively rounded off the same way the Kyrie was, with a significant melodic refrain. The Frankish ambition to use music as a shaping and a unifying force is exercised here at the highest possible level.

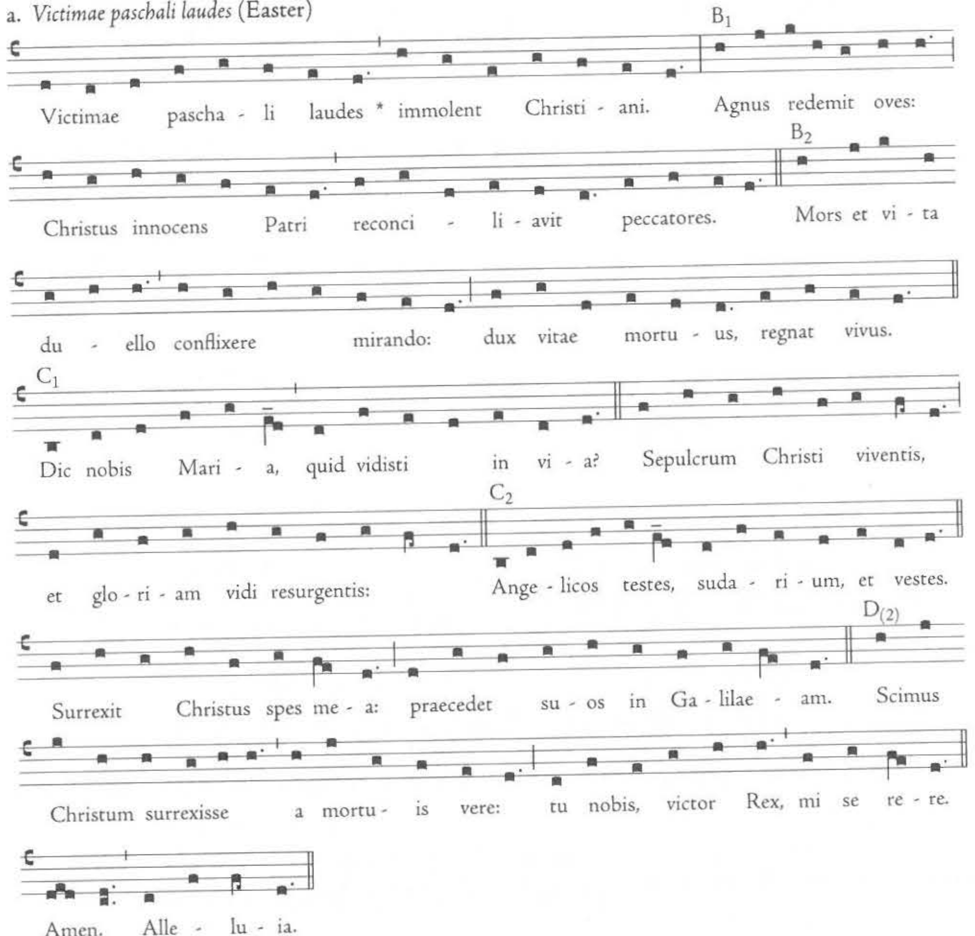
EX. 3-6 *Ite/deo gratias* from Mass IX

VERSUS

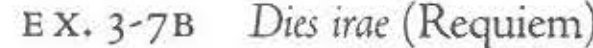
The same urge to regularize tonally and formally, and to use the two stabilizing dimensions to reinforce one another, can be seen in late Frankish sequences as well, together with the additional regularizing element of metrical verse, eventually replete with rhyme. Settings of such texts, especially rhymed metrical sequences, are often called *versus* to distinguish them from the older *prosa*. Ex. 3-7 contains two of the sequences that have survived into the modern liturgy. The Easter sequence, *Victimae paschali laudes* ("Praises to the Paschal victim"), is attributed in both words and music to the German monk Wipo, chaplain to the Holy Roman Emperor Conrad II (reigned 1024–39). It has the paired versicle structure common to the form: A, BB, CC, DD. The constituent phrases describe the principal parts of the modal scale with great regularity. The two phrases of verse A describe the modal pentachord, with the first phrase darkened by the Dorian lower neighbor, and the second compensating by adding the previously withheld top note. Verse B makes a steady descent from the authentic tetrachord (cadencing on the tuba) through the pentachord, through the darkened pentachord with lower neighbor and no tuba. Verse C extends downward, like the second Kyrie in Ex. 3-5, to describe the plagal tetrachord, proceeding through the "darkened" pentachord to the full pentachord. Phrase D, which resembles phrase B, begins like it with the authentic tetrachord at the top of the modal ambitus, and again gradually descends to the final, with the final phrase (and also the paschal alleluia) colored dark by the use of the *subtonium* (the lower neighbor).

Ex. 3-7 gives the musical text of *Victimae paschali laudes* exactly as it is found in the *Liber usualis*, a practical edition of Gregorian chant first published in 1934 for the use of modern Catholic congregations. It lacks a repetition of the D phrase because the text has been officially expurgated. The omitted verse, the first of the pair sung to phrase D, had read: *Credendum est magis soli Mariae veraci/quam Judeorum turbe fallaci* ("More trust is

EX. 3-7 Two sequences in modern use



To the Paschal Victim, hymns of praise, come, ye Christians, joyous raise:
Lamb unstained, unmeasured price hath paid, ransom for the sheep that strayed.
To a father kind, rebellious men sinless Son hath led again.
Life and death in combat fierce engage, marvel dazzling every age.
Price of life by hellish monster slain living now shall ever reign.
Tell us, Mary, thou our herald be, what in passing thou didst see?
Empty tomb, where Christ, now living, lay.
Angels saw I in bright array: shroud and vesture loosely cast aside
Prove he's risen glorified.
Yea! my Hope hath snapped the fatal chain, smiting Death hath risen again:
quick before you, sped to Galilee.
Know we now that Christ hath truly risen.
Glorious King, help us while we sing:
Amen. Alleluia.



EX. 3-7B *Dies irae* (Requiem)

Dreaded day, that day of ire,
When the world shall melt in fire,
Told by Sybil and David's lyre.

Fright men's hearts shall rudely shift,
As the judge through gleaming rift
Comes each soul to closely sift.

Then, the trumpet's shrill refrain,
Piercing tombs by hill and plain,
Souls to judgment shall arraign.

Death and nature stand aghast,
As the bodies rising fast,
Hie to hear the sentence passed.

Then, before him shall be placed,
That whereon the verdict's based,
Book wherein each deed is traced.

When the Judge his seat shall gain,
All that's hidden shall be plain,
Nothing shall unjudged remain.

to be put in honest Mary [Magdalen] alone than in the lying crowd of Jews"). Sensible to its nastiness, and aware of its bearing on a history of persecutions, the Council of Trent, the mid-sixteenth century congress of church reform that evicted almost all the other sequences from the liturgy, pruned the offending verse from *Victimae paschali* as a gesture of reconciliation with the Jews.

Dies irae ("Day of wrath"), from the Requiem Mass (Ex. 3-7b), is probably the most famous of all medieval liturgical songs, and a very late one. It may even be a thirteenth-century composition, for the text is attributed to Thomas of Celano (d. ca. 1255), a disciple and biographer of St. Francis of Assisi. Thomas's poem is a kind of meditation or gloss in rhymed three-line stanzas (tercets) on the second verse—"Dies illa, dies irae"—of the responsory *Libera me, Domine, de morte aeterna* ("Deliver me, O Lord, from eternal death"), which is sung at the graveside service that follows the Requiem Mass. Even the melody begins as a parody (or gloss, or takeoff—but not a trope, except in the loosest possible use of the term) on that of the responsory verse (Ex. 3-8).

EX. 3-8 *Libera me* (responsory verse)

O that day, that day of wrath, of sore distress and of all wretchedness, that great and exceeding bitter day.

Like *Rex caeli* (Ex. 2-1), in its full form the *Dies irae* has a melodic repetition scheme that exceeds the normal allotment of a sequence. (There can be no doubt about its status, though, because within the actual liturgy it occupies the place and accomplishes the business of a sequence.) Its three paired versicles go through a triple cursus—a threefold repetition like that of a litany: AABBCC/AABBCC/AABBC, with the last C replaced by a final couplet, to which an additional unrhymed couplet and an Amen were added by an anonymous reviser. (Ex. 3-7b contains only the first cursus.) The various constituent phrases have many internal repetitions as well: the second phrase of B, for example, is an embellished variant of the responsory-derived opening phrase of A, which (like the opening acclamation in Kyrie "Cum jubilo") thus assumes the role of a refrain.

Once again, as by now we may expect to find in a late medieval Dorian chant, the melody delineates the principal parts of the mode with great clarity. The A phrase occupies the Hypodorian ambitus, minus the highest note; the B phrase stakes out the upper tetrachord (but again minus the highest note); and the C phrase sinks back into Hypodorian space (this is, after all, a funereal chant). Only the final couplet (on "judicandus . . . .") manages to reach the top of the authentic octave, vouchsafing a mode 1 classification for the melody. Until the "coda," moreover, with a pair of half cadences on A (the mode 1 tuba), every one of the melody's frequent cadences has been to the final, imparting an additional, very heavy-treaded, dimension of repetition.

Despite its formal peculiarities, the *Dies irae* is a very typical late sequence in its verse structure. By the middle of the twelfth century, rhymed tercets composed of eight-syllable lines with regularly alternated accent patterns were very much the norm, not only for sequences but for new Office formularies as well. This verse pattern (especially in a modified tercet with syllable count 8+8+7) is often associated with Adam Precentor, alias Adam of St. Victor (d. 1146) a much-venerated Parisian churchman and an "outstanding versifier" (*egregius versificator*) who is credited with churning out between forty and seventy sequences of this type, most of them set to a small repertory of stereotyped and interchangeable tunes. These sequences were composed not only for the Augustinian abbey of St. Victor, where Adam was resident, but also for the newly consecrated Cathedral of Notre Dame, where he served as cantor. The most famous melody associated with Adam is the Mixolydian tune to which St. Thomas Aquinas's sequence *Lauda Sion Salvatorem* ("Praise the Savior, O Zion") is still sung at traditional Catholic churches on the feast of Corpus Christi. In Ex. 3-9 the first two

melodic phrases are given both with St. Thomas Aquinas's words and with Adam's original poem, *Laudes crucis attollamus* ("Praises to the cross we bear"), composed about a hundred years earlier. Mixing and matching texts and tunes (especially new texts and familiar tunes) was a common practice, called *contrafactum*, that throve especially in genres that exhibited the kind of rigorous regularity of form and meter that we find in the late Parisian (or "Victorine") sequence.

EX. 3-9 *Lauda Sion Salvatorem/Laudes crucis attolamus*

1. Laud, O Zion, thy salvation,
laud with hymn and exaltation,
Christ, thy king and shepherd, too.

2. Spend thyself, honor raising,
who surpasseth all thy praising;
never canst thou reach his due.

3. Sing today, the mystery showing
of the living, life-bestowing
Bread from heaven before Thee set.

4. Even the same of old provided,
where the Twelve, divinely guided,
at the holy table met . . .

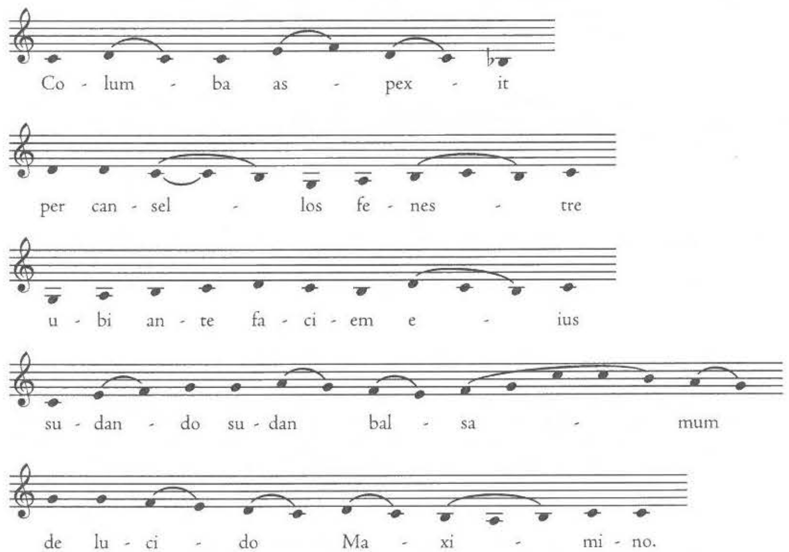
Altogether different were the contemporaneous sequences of Hildegard of Bingen (1098–1179), Abbess of the Benedictine convent of Rupertsberg in the Rhine valley near the German city of Trier. In its formal, modal, and metrical clarity, the Parisian sequence accorded with the scholastic tradition of Augustine and Boethius; scholastic thinkers sought, through orderly and cogent argument, to make faith intelligible to reason. Hildegard, by contrast, used poetry and music to express a visionary "symphony of the harmony of heavenly revelations" (*symphonia armonie celestium revelationum*), as she called her collected poetical works, assembled by the late 1150s. Besides her famous sequences, the book contains antiphons, responsories, hymns, and Kyries.

Hildegard's melodies often have an extraordinary ambitus (up to two and a half octaves!), and they are not easily parsed into abstract modal functions. Rather, they exhibit the older formula-family notion of modal identity, just as their verbal patterns, avoiding both rhyme and regular accentuation, revert to the older, Notker-style notion of *prosa*. Her fantastic diction and imagery are all her own.

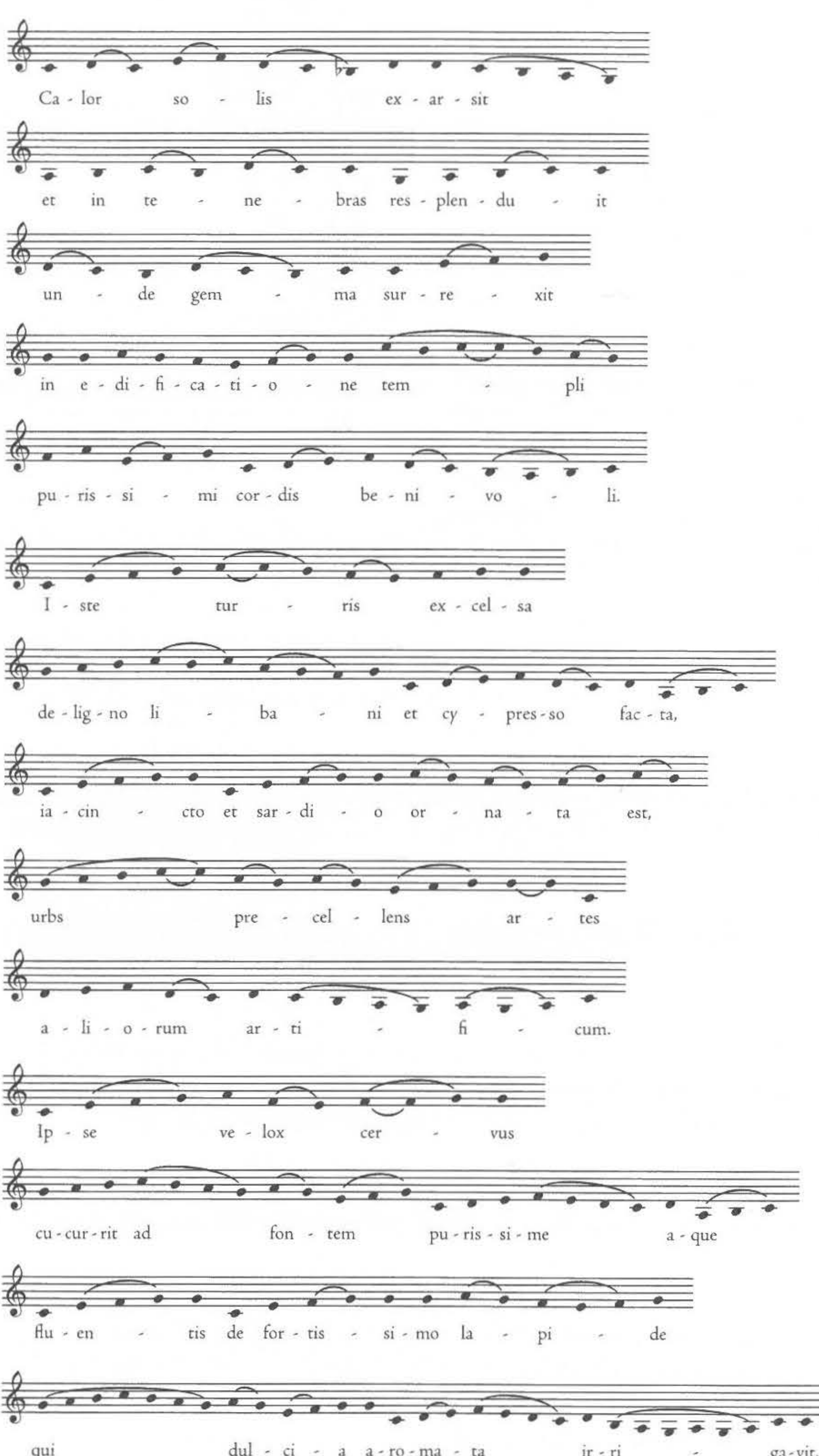
In the sequence *Columba aspexit* ("The dove looked in") for the commemoration feast of St. Maximinus, a local saint of Trier, the versicles are paired in the traditional way, but loosely. (Ex. 3-10 shows the first two pairs.) The members of a pair do not always correspond exactly in syllable count. Compared with the literal strophic repetition we have become used to in the late medieval sequence, Hildegard's melodic parallelism seems more to resemble a process of variation. (Some of her sequences avoid parallelism altogether, something unheard of since the ninth century and probably unknown to Hildegard as a precedent.) The result of all these irregularities is a relatively difficult melody to comprehend rationally or memorize. That lack of easy grasp, which induces a passivity of mind, combined with a flamboyant imagery, much of it derived from the Song of Songs, that evokes strong sensory impressions (specially implicating the sense of smell), conspire to produce an immensity of feeling one associates with revelation rather than reflection. Unlike the elegant, urbane creations of the Victorines, Hildegard's is a lyricism of mystical immediacy. (Nor is this the last time French and German "schools" will be so differentiated.)

FIG. 3-4 Hildegard of Bingen, the twelfth-century abbess of Rupertsberg, writing down her visions (or, possibly, her chants). The illustration comes from a manuscript of her treatise *Scivias* ("Know the ways of the Lord") called the Codex Rupertsberg. It disappeared during World War II.

EX. 3-10 Hildegard of Bingen, *Columba aspexit*



EX. 3-10 *(continued)*



LITURGICAL DRAMA

Hildegard's largest work is a play with music called *Ordo virtutum* ("The enactment of the virtues"). In it, the Devil and the sixteen virtues do battle for the possession of a Christian soul. It is by far the oldest extant example of what is now called the "morality play," a form of allegorical drama (chiefly popular between the fourteenth and the sixteenth centuries) in which the actors personify virtues and vices. In terms of content, then, Hildegard's play was unusual and, it could be said, prophetic. In terms of its genre, however, it was not unusual at all.

By Hildegard's twelfth century, the sung verse play in Latin was a veritable craze in northern Europe and England, and church space was increasingly given over on major festivals to dramatic representations of various kinds. Such plays begin to appear in written sources in the tenth century, and it is probably no accident that the earliest ones of all enact the same episode — the visit of the women (or the Magi) to Christ's tomb (or the manger) and their meeting with an angel — that we encountered in the previous chapter in the form of tropes to the Easter and Christmas Introits. While it would be misleading to allege (as scholars once believed) that the so-called liturgical drama (performed at matins) grew directly or "organically" out of the earlier tropes (performed at Mass), it is clear that the church plays were a part — the crowning part, it is fair to say — of the same impulse to adorn and amplify the liturgy that produced the trope, the sequence, and all the other specifically Frankish liturgical genres that we surveyed in the previous chapter.

One of the most fully worked out of these early plays, with detailed directions for the costumes and the movements of the actors, is found in the *Regularis concordia* of 973, a code of monastic law produced by a council of bishops under Ethelwold (ca. 908–984) at the cathedral of Winchester. Its music is preserved in the famous Winchester Tropers, two great books of liturgical supplements, the earlier of them roughly contemporaneous with the council. (Unfortunately the Winchester Tropers are both notated in staffless neumes, and their contents cannot be reliably transcribed for performance.)

Like the tropes and sequences, the church plays evolved — between the tenth and twelfth centuries — from a prose into a verse genre. Twelfth-century liturgical dramas were elaborate composites of newly composed *versus* (music set to verse texts in the latest Frankish style), older hymns and sequences, and Gregorian antiphons, these last being retained as a kind of scriptural allusion or invocation. Their subjects included *Peregrinus* plays (dramatizations of the risen Christ's appearances to his disciples), shepherds' plays for Christmas, the Slaughter of the Holy Innocents (sometimes called the "Play of Herod"), the Wise and Foolish Virgins, the Raising of Lazarus, the miracles of St. Nicholas, and the so-called *Ludus Danielis*, the "Play of Daniel."

The largest single source of these twelfth-century verse plays is the so-called Fleury Play-book, a manuscript copied at the Benedictine monastery of St. Benoit at Fleury-sur- Loire near Orleans, the burial place of King Philip I of France (d. 1108). The best-known single item in the repertory is the Play of Daniel, thanks to its spectacular revival in 1958 by Noah Greenberg's New York Pro Musica ensemble, a milestone in the "early music" performance movement (a recording was still in print as of 2001).

It was composed by students at the Cathedral school of Beauvais for the Feast of the Circumcision (January 1): "In your honor, Christ, this Daniel play was written at Beauvais, the product of our youth," the first words proclaim. In this treatment, the Old Testament story of the prophet Daniel and his deliverance from the lion's den (vividly evoked in prescribed sets and costumes) is turned at the end into a prophecy of the coming of Christ: *Ecce venit sanctus ille, / sanctorum sanctissimus,* Daniel sings: "Behold, he comes, the Holy One, the Holiest of Holies," followed by a traditional Christmas hymn and the ancient hymn of thanksgiving, *Te Deum laudamus,* the concluding chant at matins, to which the whole foregoing complement of dramatic verses, processional songs, and expressive lyrics could be interpreted as a huge explanatory preface or trope.

The processional songs that accompany the entrances and exits of the *dramatis personae* in the Play of Daniel are labeled *conductus* (escorting-song) in the manuscript rubrics, one of the earliest uses of a term that later became synonymous with *versus,* or freely composed Latin song in verse. Ex. 3-11 gives the first of these *conducti,* to the verse *Astra tenenti / cunctipotenti,* which accompanies the entrance of King Belshazzar at the very beginning of the play, and then Daniel's lyrical petition after King Darius sentences him to die in the lions' den. (In order to accompany the actual procession of actors more effectively in performance, Noah Greenberg decided on the basis of the word-accents to impose a regular compound-triple meter on the five-syllable lines of text in the conductus; there is no evidence to gainsay him.) Between them, these two samples will give an idea of the extraordinary range of poetic and musical style encompassed by post-Gregorian *versus* settings.

MARIAN ANTIPHONS

The very latest genre of medieval chant to be incorporated (in some part) into the canonical liturgy was the votive antiphon. Votive antiphons were psalmless antiphons—that is, independent Latin songs—attached as riders onto the ends of Office services to honor or appeal to local saints or (increasingly) to the Virgin Mary. As a human chosen by God to bear His son, Mary was thought to mediate between the human and the divine. One fanciful image casts her as the neck connecting the Godhead and the body of the Christian congregation. As such she was the natural recipient of personal prayers or devotional vows (and it is from "vow" that the word "votive" is derived). From the cult of Mary arose the Marian antiphon or "anthem to the Blessed Virgin Mary." Our English word "anthem," meaning a song of praise or devotion by now as often patriotic as religious, descends (by way of the Old English *antefne*) from "antiphon." These ample songs of salutation to the Mother of God appear in great numbers in written sources beginning early in the eleventh century. By the middle of the thirteenth, a few had been adopted for ordinary use in monasteries to conclude the Compline service (hence the liturgical day itself). At English cathedrals they enhanced the Evensong service, which lay worshipers attended. It was to keep these prayers for intercession going in perpetuity that the "choral foundations"—endowments to fund the training of choristers—were set up at English cathedrals and university chapels. They have lasted to this day.

EX. 3-11A The Play of Daniel, *Astra tenenti* (conductus)

Conductus: as written (British Library, MS Egerton 2615, 12th century.

As - tra te-nen - ti cun-cti-po-ten - ti tur - ba vi-ri - lis et pu - e - ri - lis con - ti - o plau - dit.

As performed by Noah Greenberg, et al.

As - tra te-nen - ti cun-cti-po-ten - ti tur - ba vi-ri - lis et pu - e - ri - lis con - ti - o plau - dit.
Nam Da - ni - e - lem mul - ta fi - de-lem Et su - bi-is - se At - que tu-lis - se Fir - mi-ter au - dit.
Con - vo - cat ad se Rex sa - pi - en - tes Gra - ma - ta dex-trae Qui si - bi di-cant E - nu-cle-an - tes.
Quae qui - a scri - bae Non po - tu - e - re Sol - ve - re, re - git I - li - co mu - ti con - ti - cu - e - re.
Sed Da - ni - e - li, scrip-ta le - gen - ti, Mox pa - tu - e - re Quae pri - us il - lis clau - sa fu - e - re.
Quem qui - a vi - dit Prae-va - lu - is - se Bal - tha - sar il - lis Fer - tur in au - la Prae-po - su - is - se.
Cau - sa re - per - ta, non sa - tis ap - ta, De - sti - nat il - lum O - re le - o - num Di - la - ce-ran - dum.
Sed, De - us, il - los An - te ma - li-gnos, In Da - ni - e - lem Tunc vo - lu - i - sti Es - se be - ni - gnos.
Huic quo-que pa - nis, Ne sit i - na - nis, Mi - ti - tur a te Prae-pe - te va - te Pran - di - a dan - te.

To the almighty holder of the firmament
This throng of men and boys
Assembled gives praise.

For it listens attentively
To the many things faithful Daniel
Underwent and suffered.

The King calls before him the wise men
To explain the meaning of the letters
Written by that hand.

Since the wise men were not able to solve them,
Silent before the King
They held their tongues.

But to Daniel, upon reading the writing,
It became clear at once
What had been hidden to them.

When Belshazzar saw how he excelled the others
He placed him above them in the hall,
So it is related.

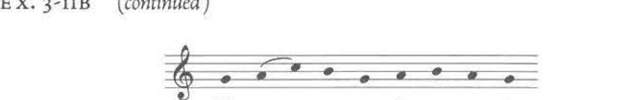
A case, not very solid, found against him,
And sentenced him to be torn
By the teeth of the lions.

But, O God, it was then your wish
That those who had been cruel to Daniel
should become kind.

And to him, lest he fall faint,
You sent bread by the angel-borne prophet,
Bringing him food.

EX. 3-11B The Play of Daniel, *Heu heu* (Daniel's lament)

EX. 3-11B (*continued*)



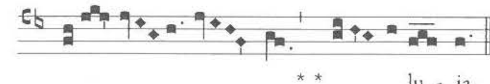
Alas, Alas, Alas!
By what fate am I condemned to death?
Alas, Alas, Alas!
O unspeakable crime!
Why does this crowd of cruel men
Give me to be torn in the wild beasts' den?
Is it thus, O King, that you wish me to perish?
Alas! By what death do you doom me to die?
Spare your anger.

At first the Marian antiphons were sung, like the psalms, in a weekly cursus. In the modern liturgy, only four have been retained, and they follow a seasonal round. In winter (that is, from Advent until the Feast of the Purification on February 2), the seasonal anthem to the Blessed Virgin Mary is the penitential *Alma Redemptoris Mater* ("Sweet Mother of the Redeemer . . . have pity on us sinners"). In spring (from Purification until Holy Week), it is the panegyric *Ave Regina coelorum* ("Hail, O Queen of the heavens"). For the exultant fifty-day period between Easter and Pentecost, known as Paschal Time, *Regina caeli, laetare* ("O Queen of heaven, rejoice") is the prescribed antiphon (Ex. 3-12a); and during the remaining (biggest) portion of the year, encompassing late summer and fall, it is *Salve, Regina* ("Hail, O Queen"), the most popular of the Marian antiphons (Ex. 3-12b) and the only one for which a plausible author has been proposed: Adhémar, Bishop of Le Puy and a leader of the First Crusade (d. at Antioch, 1098).

These eleventh-century melodies, the one exultant and the other penitent, exemplify in their contrast of modes the persistence of the doctrine of *ethos*, alive even today

EX. 3-12A Marian antiphon, *Regina caeli, laetare*

EX. 3-12A (*continued*)



O Queen of heaven, rejoice, alleluia.
For He whom thou didst merit to bear, alleluia,
has risen, as He said, alleluia.
Pray for us to God, alleluia.

EX. 3-12B Marian antiphon, *Salve, Regina*

Hail, holy Queen, Mother of mercy;
hail, our life, our sweetness, our hope!
To thee do we cry, poor banished children of Eve;
to thee do we send up our sighs,
mourning and weeping in this vale of tears.
Turn then, most gracious advocate,
thine eyes of mercy towards us;
and after this our exile,
show unto us the blessed fruit of thy womb, Jesus.
O clement, O loving, O sweet Virgin Mary.

in our conventional assignment of contrasting moods to the major and the minor. *Regina caeli*, in fact, *is* in the major mode to all intents and purposes. Its final, F (tritus), became ever more prevalent in the later Frankish genres; and when it appeared, it was usually given a "signature" of one flat to "soften" progressions from B to F (of which *Regina caeli* is especially full). The resulting "Lydian" octave species, TTST–TTS, is identical to what we would call the major scale. (Its "natural" diatonic occurrence, beginning on C, was not recognized as a mode in its own right until the middle of the sixteenth century,

but it was obviously in practical use for centuries before its theoretical description.) The mode here works in tandem with other traditional earmarks of rejoicing, notably "jubilation" (melismas on *portare* and, especially, *alleluia*, replete with internal repeats clearly modeled on those of the Mass Alleluia).

Salve Regina is dark. Like so many late Dorian chants it covers the combined (or "commixed") plagal-authentic ambitus, but its tessitura favors the lower end. (Its official assignment to mode 1 was due, most likely, to the repeated cadences of the concluding acclamations — *O clemens: O pia: O dulcis* — on A.) Although there are no real melismas, there is a great deal of melodic parallelism; indeed, the first two main phrases ("Salve Regina . . ." and "Vita dulcedo . . .") are nearly identical. This last, it turns out, is a common feature of many medieval songs, although it is not found in many chants. (It should not be confused with the paired versicles of a sequence, because the first line of a sequence was the one line that was not usually paired.) Compare the melody in Ex. 3-13. This is a *canso*, a song of "courtly love." Its language is Provençal, then the language of what is now central and southern France. The composer, Raimon de Miraval (d. ca. 1215), was a troubadour, that is, a member of the first school of European poets to use for creative purposes one of the then "modern" languages of Europe. Their line began with Guillaume IX, Duke of Aquitaine and Count of Poitiers (1071 – 1127), a younger contemporary of Adhemar, the putative author of the *Salve Regina*. Like Adhemar, Guillaume took part in the Crusades, as did many other troubadours.

EX. 3-13 Raimon de Miraval, *Aissi cum es genser pascors*

For from the one who is the essence of all virtues
I wish to seek mercy,
And not on account of the first difficulty,
That causes me many sighs and many tears,
Do I despair of the noble succor
That I have long awaited.
And if it pleases her to aid me,
Above all loyal lovers
I shall be blessed with joy.

Raimon's *canso* begins, like the *Salve Regina*, with a repeated melodic phrase. Like the *Salve Regina*, it is a song of devotional praise to a remote, idealized lady. Like the *Salve Regina*, it is a Dorian tune in a lightly neumatic style. The *Salve Regina*, in effect, may thus be looked upon as a canso to the Blessed Virgin. There is no inherent or intrinsic difference between the idioms of sacred and of "secular" devotion, and no stylistic difference between the sacred verse-music of the eleventh and twelfth centuries and such "secular" verse-music as was deemed worthy, beginning in the twelfth century, of preservation in writing.

THEORY AND THE ART OF TEACHING

Before exploring the implications of these statements, though, or taking a closer look at music set to vernacular poetry, or discussing the reasons why the word "secular" is being set off in this context by quotation marks, let us return briefly to the original subject of this chapter, the formulation of new theoretical concepts and their influence on musical practice. There is one more tale to tell.

For a long time, two of the Marian antiphons, *Alma Redemptoris mater* and *Salve Regina*, were attributed to Hermannus Contractus (Hermann the Lame, 1013 – 1054), a monk at the Swiss abbey of Reichenau. That attribution is no longer credited, but Hermann was a notable poet-composer (of sequences and Offices for local saints) and a major theorist. In his treatise, *Musica*, Hermann proposed surrounding the tetrachord of four finals (D, E, F, G) with a tone on either end, thus producing a six-note diatonic segment or hexachord from C to A, and with symmetrical intervallic content TTSTT.[3] This module, Hermann implied, sums up with the greatest possible economy the tonal range of Gregorian chant. The tetrachord beginning with the first note, C, gives the beginning of the Mixolydian scale as well as that of the adjusted Lydian with B-flat: TTS. (In view of what we have observed about the F mode with B-flat, we could call this the major tetrachord.) If one begins on the second note of the hexachord, one gets the beginning of the Dorian scale, TST (we can call it the minor tetrachord). And by beginning on the third note one derives the essence of the Phrygian, STT. For all practical purposes, this model implies, there are only three finals — not four — and their scales are best thought of as beginning on C, D, and E. It was a step in the direction of what we call major-minor tonality.

Hermann appears to have been unaware of the fact, but his conceptual module had already been abstracted from the chant itself as part of a great pedagogical breakthrough — perhaps the greatest in the history of the literate tradition of music in the West. For it was precisely this breakthrough that at last made "sight-singing" possible and put Western music on a literate footing in truly practical terms. Its importance would be hard to overestimate.

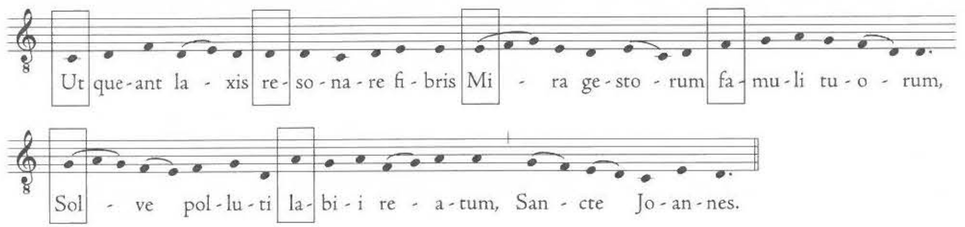
The man responsible for this signal achievement was the same Italian monk, Guido of Arezzo, who around 1030 (in the prologue to an antiphoner) first proposed placing neumes on the lines and spaces of a ruled staff to define their precise pitch content. Guido used special colors, later replaced by alphabet signs, to denote the C and F, "key" lines — *claves* in Latin — that have semitones below them; these letters survive as our

FIG. 3-5 Guido of Arezzo instructing his pupil Theodal at the monochord, from a twelfth-century manuscript in the Austrian National Library, Vienna.

modern "clefs." We, who still rely on his inventions nearly a thousand years later, owe him a lot, as did all the generations of Western musicians preceding us. No wonder he was a legend in his own time, and by now is something of a myth, a musical Prometheus.

The actual Guido lived from about 990 to about 1033 and specialized for most of his fairly brief life in the training of choirboys. Like many teachers of ear training, he was ever on the lookout for melodies (in his case, chiefly chant antiphons) with which to exemplify the various intervals. Imagine his excitement, then, when (as he tells us) he chanced upon a tune that could exemplify all of them. This was the hymn *Ut queant laxis* ("So that tongues might loosen"), composed in the late eighth century by Paul the Deacon, a monk at the Benedictine abbey of Monte Cassino, in honor of the abbey's patron saint, John the Baptist. This hymn tune is so constructed that the first syllable in each half-line is one scale degree higher than the one that precedes it, the whole series exactly tracing out the basic hexachord from C to A (Ex. 3-14). So well does it fit the pedagogical bill that scholars now suspect that Guido actually wrote the melody himself on the familiar words of the hymn.

EX. 3-14 Hymn, *Ut queant laxis*; words by Paul the Deacon, music possibly by Guido d'Arezzo



That thy servants may freely proclaim the wonders of thy deeds,
absolve the sins of their unclean lips, O holy John.

Guido's hexachord

This module gave a syllable-name (or *vox*, "voice") to each degree (or *locus*, "place") in the hexachord. Once internalized, the set of "musical voices" (*voces musicales*) served a double purpose for ear training. In the first place any interval, ascending or descending, could be demonstrated in terms of a *vox* combination (thus: ut–re, the tone; ut–mi, the major third; ut–fa the perfect fourth; re–fa the minor third; etc.). And, second, the difference between the tone and the semitone, the all-important definer of mode quality, could be mastered by drilling the interval mi–fa.

Around the beginning of the seventeenth century, the syllable *si*, derived from the initials of "Sancte Ioannes," was added by some singing teachers to the Guidonian module so that a full major scale could be sung with model ("solmization") syllables. (In modern practice, as every music student knows, *si* has been replaced by *ti*, and the closed syllable *ut* has been replaced by the open syllable *do*, sometimes spelled "doh" in English speaking countries to avoid confusion with the verb "to do.") Guido, however, who did not as yet have or need the concept of the major scale, managed to complete the octave by transposing the basic module so that it began on G, the hexachord G–E being intervallically identical (or "affined," to use Guido's vocabulary) with C–A. In this new placement, the progression mi–fa corresponds with the semitone B–C. To solmize the full scale from C to c, one "mutates" at some convenient point (either on sol–ut or la–re) from one location of the module to the other, thus (dashes denoting semitones):

C D E — F G A B — C......
ut re mi — fa sol la
ut re mi — fa sol la

To take care of the F-with-B-flat situation, later theorists recognized another transposition of the module, beginning on F, that would place the mi–fa pair on A and B-flat. The whole range of hexachord transpositions thus achieved, mapping out the whole musical space within which Gregorian chant was habitually sung, finally looked like Ex. 3-15.

EX. 3-15 The gamut, or full range of pitches represented on the Guidonian hand, together with the seven hexachords that are required for its solmization. The recurrent pitch names across the bottom of the diagram are called claves in medieval music theory; the recurrent solmization syllables are the voces. An individual pitch, or locus ("place" within the gamut), is specified by a combination of clavis and vox, from Gamma ut (whence "gamut") to E la. What we now call "middle C" was C sol-fa-ut to medieval singers

In order to gain an *ut* at the bottom on which to begin the first set of *voces*, Guido placed a G below the A that normally marked the lower end of the modal system. This extra G was represented by its Greek equivalent, gamma. Its full name within the array

of voces was "Gamma ut," which (shortened to *gamut*) became the name of the array itself. (The word "gamut," of course, has entered the common English vocabulary to denote the full range of anything.) The two versions of B (the one sung as *mi* over G, corresponding to our B natural, and the one sung as *fa* over F, corresponding to B-flat), were assigned to a single mutable space, whose actual pitch realization would depend on the context. The higher B was known as the hard one (*durus*), and was represented by a square-shaped letter that eventually evolved into the modern natural sign. The hexachord containing it was also known as the "hard" hexachord (*hexachordum durum*). The lower one, which softened augmented fourths into perfect ones, was known accordingly as soft (*mollis*) and was represented by a rounded letter that eventually evolved into the modern flat sign. The hexachord containing B-flat (*B-mollis*) was known as the "soft" hexachord (*hexachordum molle*; the original module, derived from the hymn, was called the "natural" hexachord.)

Eventually, the use to which Guido put the C–A hexachord module and the concepts that arose from it, began to influence the more theoretical notion of the hexachord as expounded by Hermann. One now could distinguish pieces ending "on ut" (*Regina caeli*, for example) from pieces ending "on re" (like *Salve Regina*). A whole interval-species could be summoned up by a single syllable. This, too, reinforced the tendency to simplify the concept of mode and reduce it all the more to our familiar major-minor dualism. Eventually the "ut" modes (like G with a B natural) were called *durus*, and "re" modes (like G with a B flat, a "transposed" Dorian) were called *mollis*. This terminology survives to this day in some languages, like German and Russian, as equivalents for major and minor (thus in German *G-dur* means "G major" and *g-moll* means "G minor.") In French and Russian, the word *bémol* (from "B-mollis") denotes the flat sign.

As an aid toward internalizing the whole set of *voces* and applying them to the actual notes written on Guido's other invention, the staff, Guido—or, more likely, later theorists acting in his name—adopted a mnemonic device long used by calendar makers and public speakers, whereby items to be memorized were mapped spiralwise onto the joints of the left palm (Fig. 3-6). (The once widespread use of such devices is still reflected in our daily language by expressions like "rule of thumb" and "at one's fingertips.") In its fully developed musical form (not actually reached until the thirteenth century, two hundred years after Guido), each location on the "Guidonian hand" (and one in space, above the middle finger) represented a musical *locus*, defined by the conjunction of two overlapping cycles: the octave-cycle naming the notes as written (the *claves*, or letter names), and the series of hexachord placements that assigned *voces* to each of the *claves*. A specific locus, then, represents the product of a *clavis* and a *vox*. C *fa ut* (lowest joint of index finger), for example, is the C below middle C (C), and only that C: it can be solmized only in the hard hexachord (in which it is *fa*) and the natural (in which it is *ut*); there is no F below it in the gamut, so it cannot be solmized as sol. Middle C (*c*, top joint of ring finger) is C *sol fa ut*: it can be solmized in all three hexachords. The C above middle C (*cc*, second joint of ring finger), and only that C, is C *sol fa*, for it can only be solmized in the soft and hard hexachords. To sing it as *ut* would imply that the gamut (or "hand," as it was fondly called) continued past its upper limit.

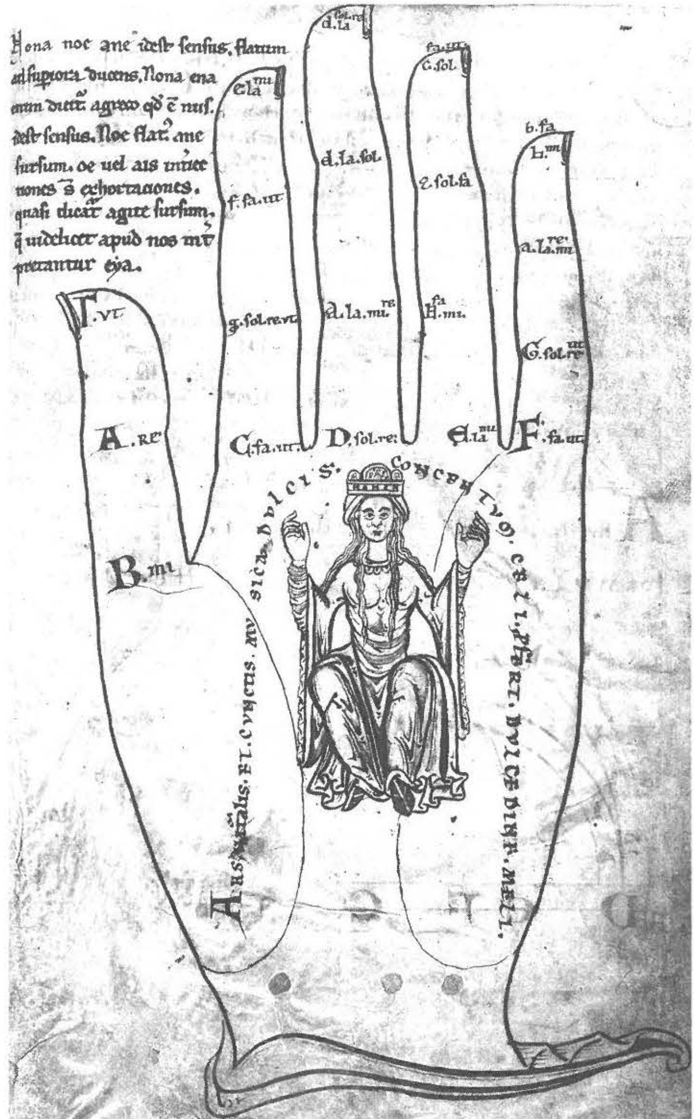


FIG. 3-6 The "Guidonian hand" as represented in a thirteenth-century Bavarian manuscript.

Armed with the memorized and internalized gamut, a singer could parse a written melody into its constituent intervals without hearing it or hunting for it on a monochord. The first phrase of *Salve Regina* (Ex. 3-10b), for example, could be seen at a glance to lie exactly within the compass of the natural hexachord, in which it would be solmized with these *voces*: **/la sol la re/ (Salve); /la sol fa mi fa sol fa mi re/ (Regina); /ut re re ut re mi fa sol re mi ut re / (mater misericordiae).** All of *Regina caeli* (Ex. 3-10a) lies within a single soft hexachord. The beginning of the second phrase ("Quia quem meruisti"), the first that encompasses the entire range of the chant, would take these *voces*: **/ut sol sol la la sol fa mi re ut re mi mi/.** Finally, here are the *voces* for the first "Kyrie" acclamation and the first "Christe" in Kyrie IX (Ex. 3-4):

Kyrie: **/re fa sol la sol fa mi re fa re ut re ut re fa sol fa mi re/**(natural hexachord).

Christe: **/mi mi re fa mi re re ut re fa re mi/**(soft hexachord).

Except for the beginning of the second "Kyrie" invocation, which extends down into the first hard (or "gamma") hexachord (syllables: **re fa sol sol**), the whole of Kyrie IX can be solmized using one natural and one soft hexachord. It would be a good exercise for the reader. Another good exercise would be to seek out phrases in the chants used as examples in this book so far that exceed the interval of a sixth, and that therefore require a mutation for their proper solmization. *Salve Regina* contains a number of interesting

examples of this type. The phrase "Ad te suspiramus, gementes et flentes" requires a mutation from natural to soft and back again, thus: /**re fa la** (think *mi*) **sol re re ut re mi** (think *la*), **re fa sol sol re fa mi re ut**/. The phrase "Eia ergo, Advocata nostra, illos tuos misericordes oculos" is tricky: it begins in the soft hexachord, and descends into the natural; but when the upper range is regained, mutation must be not to the soft hexachord but to the hard, since the melody (as the alert singer will have scanned ahead to notice) has a B-natural, not a B-flat, thus: /**ut ut re ut re mi mi, sol re mi re ut** (think *fa*) **re sol la** (think *re*), **sol sol fa mi fa sol re sol fa re ut** (think *fa*) **la sol fa mi fa mi re ut**/. At "nobis," however, where the B-flat is called for, so is the soft hexachord: /**re la** (think *mi*) **fa mi**/.

Armed with these techniques, and with Guido's hand stored in memory for ready reference, a singer could truly sing at sight, or (as Guido put it in the title of his famous epistle of 1032) "sing an unknown melody." Reinforced over centuries of practice, this pedagogical aid wrought enormous changes in the way music was disseminated and thought about. When transmission from composer to performer could take place impersonally, without direct oral/aural contact, music became that much less a process or a social act, and that much more a tangible, autonomous thing. The notion of a "piece" of music could only arise when music began to be thought of in terms of actual pieces of paper or parchment. For these far-reaching conceptual changes, we have the legendary Guido, the greatest ear trainer of them all, to thank. He turned out to be even more a trainer of eyes and minds than of ears.

CHAPTER 4

Music of Feudalism and *Fin' Amors*

The Earliest Literate Secular Repertories: Aquitaine, France, Iberia, Italy, Germany

BINARISMS

One of the lessons the study of history can teach us is to appreciate the futility of rigidly oppositional distinctions and to resist them. Hard and fast antitheses, often called binarisms, are conceptual rather than empirical: that is, they are more likely to be found in the clean laboratories of our minds than in the messy world our bodies inhabit. (And even to say this much is to commit several errors of arbitrary opposition.) One can hardly avoid categories; they simplify experience and, above all, simplify the stories we tell. They make things intelligible. Without them, writing a book like this—let alone reading it!—would be virtually impossible. And yet they involve sacrifice as well as gain.

The invention of staff notation, placed at the climax of the previous chapter and presented as a great victory, is a case in point. The gain in (apparent) precision was accompanied by a definite loss in variety. The staff is nothing if not an instrument for imposing hard distinctions: between A and B, between B and C, and so forth. These distinctions are gross as well as hard; singing from a staff is like putting frets on one's vocal cords. One has only to compare the staffless neumes of early chant manuscripts with the staved notations of the "post-Guidonian" era to see how much more stylized notation had to become—and how much farther, one must conclude, from the oral practice it purported to transcribe—in order to furnish the precise information about pitch that we now prize. A whole category of ornamental neumes (called *liquescent*, implying fluidity, flexibility of voice, and, most likely, intonation "in the cracks") was sacrificed, and eventually lost from practice. No one knows today just what they once signified. The precision of staff notation, like the precision of the modal theory that preceded and preconditioned it, regularized certain aspects of music and made many developments possible. Yet at the same time they foreclosed other aspects and potential developments that other musical cultures have continued to prize and to cultivate. Anyone who has heard the classical music of Iran or India will have an idea of what may have been lost from the European tradition.

On a more conceptual plane, consider the distinction between sacred and secular. Up to now only the former has figured in our story, simply because only it was available for description. Now we are about to encounter the earliest available secular

them ancient. But the same reservations proposed above — against calling the Florentine musical plays operas — apply to Cavalieri's Roman one.

The *sacra rappresentazione* or sacred play with music had a long history, even if we do not attempt to trace it all the way back to the medieval liturgical dramas described in chapter 3. In the fifteenth century it had developed out of the singing of *laude* that embodied dialogues. Most of the fifteenth- and sixteenth-century *rappresentazioni* were declaimed, aria-style, to melodic formulas or over ground basses, with frottolas, madrigals, and instrumental pieces interspersed. Some surviving instrumental works by Henricus Isaac, including a wild Moorish dance and a *battaglia*, are thought to be remnants from such plays, possibly from Lorenzo de' Medici's own *SS. Giovanni e Paolo*.

Cavalieri's *Rappresentatione* was very much in the existing tradition, since it was basically an expansion of an old lauda, *Anima mia che pensi*, that took the form of a dialogue between body and soul. It was, however, the first such play to sport continuous music, some of it in the new dramatic style that the composer had pioneered in his pastorals. The first dialogue between the title characters (some of it shown in Fig. 19-3) is actually a setting of the old lauda, of which a polyphonic version had been published in 1577 (Ex. 19-10a). What had merely been two successive strophes in the lauda now becomes a highly contrasted colloquy (Ex. 19-10b): the question, posed by the body in recitative style, is answered by the soul in a dancelike aria.

At its first performance it was a play in the full sense of the word, but since it was performed immediately before Lent in the assembly hall of an Oratory, it prefigures the specifically Lenten genre of Biblical *favole in musica*, scriptural musical tales in dramatic "*recitar cantando*" form but nonstaged. That genre, which came to be called *oratorio* after its performance venue, arose a few decades later in response to the institution of public musical theaters, which had to close during Lent. It will be the subject of a later chapter.

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4 Jacques Paul Migne, ed., *Patrologiae cursus completus, Series Latina*, Vol. XXXVII (Paris, 1853), p. 1953, trans. Gustave Reese in *Music of the Middle Ages* (New York: Norton, 1940), p. 64.
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