1 Language, music and notation

> Songs are thoughts which are sung out with the breath when people let themselves be moved by a great force . . . When the words that we need shoot up of themselves, we have a new song.
>
> Orpingalik, an elder of the Netsilingmiut (Netsilik Eskimo) (cited in Adams 1997: 15)

On the distinction between speech and song

The problem I seek to resolve in this chapter stems from a puzzle about the distinction, and the relation, between speech and song. Those of us, like myself, brought up in the Western 'classical' tradition are inclined to contrast these uses of the voice along the axis of a distinction between language and music. When we listen to music, whether vocal or instrumental, it is surely to the sound itself that we attend. And if we were to ask after the meaning of this sound, the answer could only be in terms of the feeling it evokes in us. As musical sound permeates the awareness of listeners, it gives shape or form to their very perception of the world. But most of us, I think, are convinced that when we listen to speech it is quite otherwise. The meanings of spoken words, we say, are to be found neither in their sounds nor in the effects that they have on us. They are rather supposed to lie *behind* the sounds. Thus the attention of listeners is not drawn to the sounds of speech in themselves but rather to the meanings conveyed by them and which they serve, in a sense, to deliver. It seems that, in listening to speech, our awareness penetrates through the sound to reach a world of verbal meaning beyond. And by the same token, that world is absolutely silent – as silent, indeed, as are the pages of a book. In short, whereas sound is of the essence of music, language is mute.

How do we come to have this peculiar view of the silence of language or, for that matter, of the non-verbal nature of musical sound? It is not one that would have made sense to our predecessors of the Middle Ages or classical Antiquity. In an oft-cited passage of *The Republic*, Plato has Socrates assert that music 'is composed of three things, the words, the harmony, and the

rhythm'.[1] The words, then, are not just an integral part of music; they are its leading part. 'The harmony and the rhythm', continues Socrates, 'must follow the words.' Evidently for Plato and his contemporaries, serious music was an essentially verbal art. To take the words out of music, they thought, is to reduce it to a mere embellishment or accompaniment. This, in turn, accounts for the lowly status accorded at the time to instrumental music. But by the same token, the sounds of words, whether recited or sung, were central to their meaning.

Jumping ahead in time to the churchmen of the medieval period, we find much the same idea. As Lydia Goehr has observed, most early church music was sung 'in a declamatory style designed to give priority to the word' (Goehr 1992: 131). The human voice, since it was uniquely capable of articulating the Word of God, was considered to be the only properly musical organ. Yet it was, so to speak, a mouthpiece for the word, not its creator. St Jerome, in the fourth century, advised worshippers to sing 'more with the heart than with the voice'. One should sing, he explains, 'not through the voice, but through the words he pronounces' (Strunk 1950: 72). Jerome's point, which strikingly echoes the aphorism of the Netsilingmiut elder Orpingalik that heads this chapter, was that the word is intrinsically sonorous, and that the role of the voice is not so much to produce the sounds of words but, in song, to let them go forth – to 'shoot up of themselves', as Orpingalik put it.

This was a view that persisted throughout, and indeed beyond, the Middle Ages. Plato's rule, for example, was cited with approval by the Venetian choirmaster Gioseffe Zarlino, by far the most influential musical theorist of the Renaissance, in his *Istituzioni armoniche* of 1558, as well as in a text, dating from 1602, of the Florentine Giulio Caccini, composer of the first opera ever to be printed (Strunk 1950: 255–6, 378). It seems strange, however, to modern sensibilities. To exemplify the modern understanding of language and speech, I turn to the work of one of the founding fathers of contemporary linguistics, Ferdinand de Saussure, as set out in his celebrated courses of lectures delivered at the University of Geneva between 1906 and 1911 (Saussure 1959).

At first glance, Saussure seems as committed as his pre-modern forebears to the principle of the sonority of the word. 'The only true bond', he insists, is 'the bond of sound' (1959: 25). By means of a diagram (Figure 1.1), he explains that, in language, thought or consciousness hovers over sound like air over water. But on closer inspection it turns out that words, for Saussure, do not exist in their sounding. After all, he remarks, we can talk to ourselves or recite verse without making any sound, and even without moving the tongue or lips. Understood in a purely physical or material sense, therefore, sound cannot belong to language. It is, says Saussure, 'only a secondary thing, substance to be put to use' (1959: 118). In language, then, there are no sounds as such; there are only what Saussure calls *images* of sound. Whereas sound is physical, the sound-image is a phenomenon of psychology – it

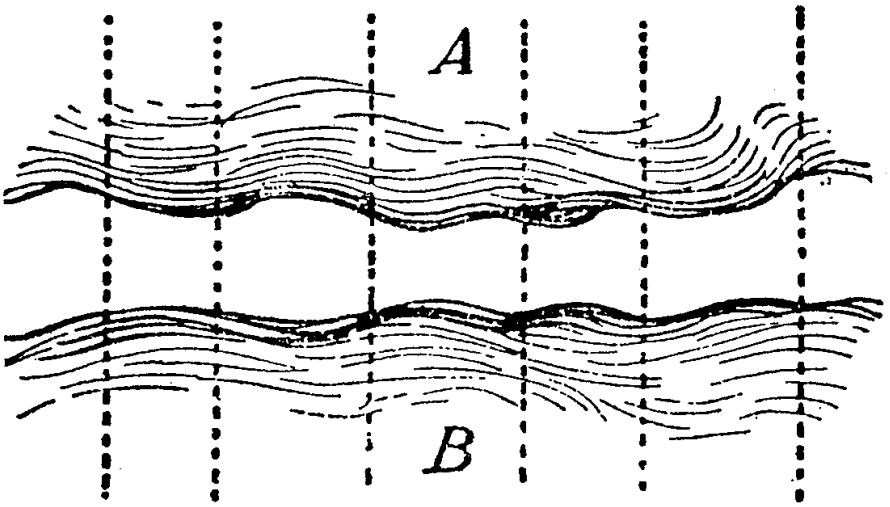

Figure 1.1 Saussure's depiction of language at the interface between a plane of thought (A) and a plane of sound-imagery (B). The role of language is to cut the interface into divisions, indicated by vertical dashed lines, thereby establishing a series of relations between particular ideas and particular sound-images. Reproduced from Saussure (1959: 112).

exists as an 'imprint' of the sound on the surface of the mind (ibid.: 66). Language, according to Saussure, maps one configuration of differences, on the plane of sound-imagery, on to another, on the plane of thought, such that for every segment of thought – or concept – there corresponds a specific image. Every coupling of concept and sound-image is a word. It follows that language, as a system of relations between words, is internal to the mind, and is given independently of its physical instantiation in acts of speech.

The implication of Saussure's argument is that, in so far as words are incorporated into music, as in song, they cease to be words at all. They no longer belong to language. 'When words and music come together in song', writes Susanne Langer, 'music swallows words' (Langer 1953: 152). By the same token, so long as sounds are subservient to verbal expression, they remain alien to music. As the contemporary Japanese composer Toru Takemitsu puts it, 'When sounds are possessed by ideas instead of having their own identity, music suffers' (Takemitsu 1997: 7). In a complete reversal of classical and medieval conceptions, pure music came in the modern era to be regarded as song *without* words, ideally instrumental rather than vocal. Thus the question I posed a moment ago can be rephrased as follows: how did it come about that the essential musicality of song was transferred from its verbal to its non-verbal components of melody, harmony and rhythm? And conversely, how was the sound taken out of language?

One possible answer has been persuasively argued by Walter Ong (1982: 91). It lies, he claims, in our familiarity with the written word. Apprehending words as they are seen on paper, both motionless and open to prolonged inspection, we readily perceive them as objects with an existence and meaning

quite apart from their sounding in acts of speech. It is as though listening to speech were a species of vision – a kind of seeing with the ear, or 'earsight' – in which to hear spoken words is akin to looking at them. Take the example of Saussure. As a scholar, immersed in a world of books, it was only natural that he should have modelled the apprehension of spoken words upon his experience of inspecting their written counterparts. Could he, however, possibly have come up with his idea of the sound-image, as a 'psychological imprint', had he never encountered the printed page?

Ong thinks not, and it is on precisely this point that he takes issue with Saussure. In common with a host of other linguists in his wake, Saussure regarded writing as merely an alternative medium to speech for the outward expression of sound-images. What he failed to recognize, Ong thinks, was that the sight of the written word is necessary for the formation of the image in the first place (Ong 1982: 17; Saussure 1959: 119–20). The effects of our familiarity with writing do indeed run so deep that it is quite difficult for us to imagine how speech would be experienced by people among whom writing is completely unknown. Such people, inhabiting a world of what Ong calls 'primary orality', would have no conception whatever of words as existing separately from their actual sounding. For them, words *are* their sounds, not things *conveyed* by sounds. Instead of using their ears to see, in the fashion of people in literate societies, they use them to hear. Listening to words as we would listen to music and song, they concentrate on the sounds themselves rather than on meanings that are supposed to lie behind the sounds. And for precisely this reason, the distinction that *we* – literate people – make between speech and song, and which seems obvious enough to us, would mean nothing to them. In both speech and song, for people at a stage of primary orality, it is the sound that counts.

The script and the score

Now if Ong is right to claim that the effect of writing is to establish language as a separate domain of words and meanings, detached from the sounds of speech, then the division between language and music would have been installed at the very origin of writing itself. Thenceforth the history of writing would have developed along its own path, so that it could reasonably be treated – as it generally has been – as a chapter in the history of language. Ong's claim has, however, been widely disputed. Indeed there is a good deal of evidence to suggest that the distinction between language and music, at least in the form in which it has come down to us, has its source not in the birth of writing but in its demise. I shall explain later what I mean by the end of writing. My immediate point is this. If, during much of the history of writing, music was a verbal art – if the musical essence of song lay in the sonority of the words of which it was composed – then the written word must also have been a form of written music. Today, for those of us schooled in the Western tradition, writing seems very different from musical notation,

though as we shall see in a moment it is no easy matter to specify exactly where the difference lies. But it appears that this difference was not given from the outset. It has rather emerged in the course of the history of writing itself. To put it another way, there can be no history of writing that is not also a history of musical notation, and an important part of that history must be about how these two came to be distinguished. What we cannot do is retroject onto the past a modern distinction between language and music, and assume that in understanding how the one came to be written we need take no account of the writing of the other. Yet by and large, this is precisely the assumption that has been made. In my reading on the history of writing, I have rarely found more than marginal reference to musical notation. Usually there is none at all.

My contention, then, is that any history of writing must be part of a more comprehensive history of notation. Before turning to consider the form this history should take, let me first take up the question of how – according to contemporary Western conventions – the written text is distinguished from the notated musical composition, or the script from the score. This question was addressed by the philosopher Nelson Goodman in his lectures on 'Languages of Art' (Goodman 1969). At first glance the answer might seem obvious. Is it not possible to propose, assert or denote by means of written words in a way that would be impossible in a score? And by the same token, does not the decipherment of a script call for a level of understanding beyond what is needed to recognize a performance as issuing from a score? As Goodman shows, however, neither of these criteria of differentiation withstands closer scrutiny. Instead, the issue seems to him to hinge upon where we would locate that essence of a composition or text that allows us to regard it as a 'work'. I shall not dwell on the intricacies of Goodman's argument, but merely restate his conclusion, namely that, whereas 'a musical score is in a notation and defines a work, . . . a literary script is both in a notation and is itself a work' (Goodman 1969: 210). The writer uses a notational system, just as a composer does, and what he writes is a work of literature. But the composer does not write a musical work. He writes a score, which in turn specifies a class of performances compliant with it. The musical work is that class of performances. To complete the picture, Goodman considers the cases of sketch drawing and etching, which are contrasted in the same way: the drawing is a work; with etching the work is a class of impressions compliant with the original plate. But unlike both the script and the score, neither drawing nor etching employs any kind of notation (see Figure 1.2). Setting aside the question, to which I return in Chapter 5, of what it takes for a drawn line to be part of a notation, why should there be this difference between the arts of music and literature in the location of the work?

The answer, I believe, has its roots in the way in which, in the modern era, music came to be purified of its verbal component and language purified of its component of sound. Both the writer, in the production of a script, and the composer, in the production of a score, are making graphic marks of one

	Notational	Non-notational
The work itself	SCRIPT	DRAWING
Work as class of compliant performances	SCORE	ETCHING

Figure 1.2 The differences between script, score, drawing and etching, according to Nelson Goodman.

kind or another on a paper surface. In both cases, these marks could be regarded as representations of sounds. But when we encounter these marks, they take us off in opposite directions. With the script, we recognize the marks as letters and words – that is, as projections of the Saussurian sound-image – imprinted on the surface of the paper just as they are supposed to be imprinted upon the surface of the mind. And they direct us immediately to what they are supposed to stand for, namely ideas or concepts. Recognizing the marks on the musical score, however, as notes and phrases rather than letters and words, they are taken to stand not for ideas or concepts *but for the sounds themselves*. In short, in comparing language and music we find that the direction of signification is reversed. Reading a script is an instance of cognition, of *taking in* the meanings inscribed in the text; reading music is an instance of performance, of *acting out* the instructions inscribed in the score. The former, if you will, takes us ever inward, into the domain of reflective thought; the latter takes us ever outward into the surrounding ambience of sound (Figure 1.3). We may read a text in order to discover the thoughts and intentions of its author, but we read the intentions of the composer, as indicated on the score, in order to experience the music as such. Of course, no system of musical notation can be complete: the orthodox system of notation for Western music, for example, focuses on pitch and rhythm to the exclusion of other features of tone and timbre. These latter features, if they are to be specified, have to be added in another format – for example as written words or abbreviations, or as numbers. Nevertheless the purpose of the notation is to describe the sound with sufficient accuracy to allow a musician reading it to produce a fair copy of the original work.

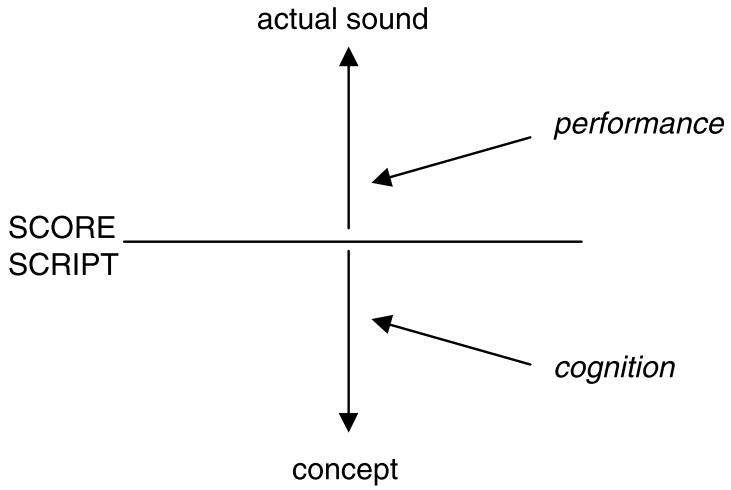

Figure 1.3 Script and score as 'taking in' and 'acting out'.

Once language and music are rigidly partitioned in this way, anomalies inevitably arise on the interface between them. Even Goodman has to admit that, if the script is written for performance as a play, it is halfway to being a score. The actor reads the lines of the play in order to be able to recite them on stage, so that considerations of voice are all-important. And the work, in the case of theatrical production, of course consists not in the script itself but in the class of performances compliant with it (Goodman 1969: 210–11). The same goes for poetry of the kind that has been expressly written to be read aloud. In so far as the poet exploits the sonority of the spoken word to achieve his effects, the poem is closer to music than language, but in so far as it remains an essentially verbal composition, it remains closer to language than music. The poetic text is thus at once script and score, or purely neither the one nor the other. While the anomalous status of dramatic and poetic performance, however, may be a problem for us, it was not a problem for our pre-modern forebears. So far as the musical aspect is concerned, as Lydia Goehr has shown, the very idea of the work as a constructed artefact – with its connotations of monumentality and architectural form – has its roots in a conception of composition, performance and notation that emerged, around the close of the eighteenth century, alongside the separation of music as an autonomous fine art (Goehr 1992: 203). Before that time, the actual *work* of music was understood to lie in the labour of performance, not of pre-composition. The idea that every performance should comply with detailed specifications, set out in advance in the notation, simply did not exist.

Writing that speaks

A parallel shift occurred, around the same time or earlier, in the field of literary production. Michel de Certeau, in *The Practice of Everyday Life* (1984), imagines the modern writer as the isolated Cartesian subject, standing

aloof from the world. A master of all he surveys, the writer confronts the blank surface of a sheet of paper much as the colonial conqueror confronts the surface of the earth, or the urban planner confronts a wasteland, in preparation for the superimposition upon it of a construction of his own making. Just as a society is created in the space of colonial rule, or a city erected in the space encompassed by the plan, so the written text is produced in the space of the page (Certeau 1984: 134–6). Thus the text is an artefact – a thing fabricated or made – that is built where before there was nothing (or, if anything was there beforehand, it is eradicated in the process). José Rabasa, commenting on the journals of Christopher Columbus, compares writing on the blank page with sailing in uncharted waters:

> The ship's rostrum and the pen's stylus draw patterns on surfaces devoid of earlier traces. This lack of precedents, the fiction of a 'blank page', enables the writer and mariner, as in the case of Columbus, to claim 'ownership' of both text and territory.
>
> (Rabasa 1993: 56)

But it was not always thus. As Rabasa points out with acknowledgement to de Certeau, the post-Renaissance writing that lays claim to a surface, and to the constructions imposed upon it, is fundamentally different from the scripture of medieval times, for the latter was understood not as something made, but as something that *speaks* (Certeau 1984: 136–7).

At that time the exemplary instance of writing was the Bible. Readers, according to de Certeau, were expected to listen to the voices of the biblical scriptures and thereby to learn from them (1984: 136–7). This was to do no more than follow precedents described in the Old Testament itself. A celebrated instance comes from the book of the prophet Jeremiah, who has his scribe Baruch write down in the 'roll of a book' (that is, a scroll) the words of God that had been spoken to him concerning the punishment to be meted out on the people of Judea for their bad behaviour. Scroll in hand, Baruch went to the people, who promptly asked him to 'read it in their ears'. This he did, much to their discomfort. 'Tell us now', the assembled audience asked him, 'how didst thou write all these words?' To this, Baruch replied: 'He [Jeremiah] pronounced all these words unto me with his mouth, and I wrote them with ink in the book.'[2] The connections here are direct and unmediated: in writing, from the prophet's mouth to the scribe's inky traces; in reading, from the latter to the ears of the people.

If writing *speaks*, and if people *read it in their ears*, then Ong's claim – that a familiarity with the written word necessarily leads people to listen to speech as though they were looking at it – cannot be correct. Indeed literate folk in medieval times, like their predecessors whose stories they were reading in the scriptures, were doing just the opposite of what we do today. Instead of using their ears to look, they were using their eyes to hear, modelling their perception of the written word upon their experience of the spoken one,

rather than vice versa. 'Thus it is', wrote St Augustine in the fifth century AD, 'that when a word is written it makes a sign to the eyes whereby that which pertains to the ears enters the mind' (cited in Parkes 1992: 9). If medieval people perceived the word differently from ourselves, this is not because they lived in a world of primary orality, having had only limited exposure to the written forms of either speech or song. It was, to the contrary, because they had a quite different understanding of the activities of reading and writing in themselves. This understanding goes back at least to Greek Antiquity. Eric Havelock has shown how early inscriptions had the quality of oral pronouncements, addressed to particular persons on particular occasions. By having inscriptions placed upon them, even artefacts could be given a voice, allowing them to proclaim to whom they belonged, by whom they were dedicated, or what would happen to anyone who misappropriated them. 'Whoso steals me', says a pot discovered from the Italian coast near Naples and dating from the seventh century BC, 'shall go blind' (Havelock 1982: 190–1, 195).

Now if writing speaks, then to read is to listen. In his inquiry into the etymological derivation of the verb 'to read' from the Anglo-Saxon *ræd* and its Germanic cognates, the medievalist Nicholas Howe shows that its primary meanings centred on the idea of 'giving advice or counsel', from which it was subsequently extended through 'explaining something obscure' (such as solving a riddle) to 'the interpretation of ordinary writing' (Howe 1992: 61–2). Thus, someone who is *ready* is prepared for a situation by virtue of having 'read' it properly or, in other words, of having taken due counsel. That notoriously incompetent Anglo-Saxon king Ethelred the Unready was so nicknamed because he took no counsel, failing in that most basic of kingly obligations. He did not listen. In short, far from being the silent and solitary contemplation of the written word so familiar to us today, reading at that time meant 'a public, spoken act within a community' (ibid.: 74). It was a performance, a matter of reading *out*. Just how well established was this sense of reading in the early Middle Ages is attested by the astonishment that Augustine recorded in his *Confessions* when, arriving in Milan in the fourth century, he observed the reading practices of Ambrose, then Catholic bishop of the city. To Augustine's utter dismay, Ambrose read without making a sound. Though his eyes followed the text, 'his voice and tongue were silent'. Augustine was at a loss to know why, but speculated that it might have been simply 'to preserve his voice, which used easily to become hoarse', for more public occasions (Augustine 1991: 92–3; see also Howe 1992: 60; Parkes 1992: 10). Even Ambrose, moreover, wrote of the *sonus litterarum*, 'the sounds of the letters' (Parkes 1992: 116, fn. 6).

More usually, monastic readers would follow the text with their lips as much as with their eyes, pronouncing or murmuring the word sounds as they went along. The sounds that came forth were known as *voces paginarum* – the 'voices of the pages' (Leclercq 1961: 19; Olson 1994: 183–5). The more they read, the more their heads would be filled with a chorus of such voices. Now

present-day readers, accustomed to thinking of sound as a purely physical phenomenon, might be inclined to dismiss these voices as figments of the imagination. Of course, we reassure ourselves, they do not *really* exist. All that exist are images of vocal sound, their psychological imprints upon the surface of the mind. This division between the materiality of sound – its physical substance – and its ideal representation is however a modern construct. It would have made no sense in terms of a philosophy of being according to which, as we shall see, bodily performance and intellectual comprehension are as viscerally linked as eating and digestion. A man who feeds himself will feel as sated, on finishing his meal, as one who has been spoon-fed by another. Who is to say, then, that as the medieval cleric traces the inscriptions written on the page, following them with his eyes and perhaps with his fingers as well, and murmuring to himself as he does so, his mind is not just as much filled with voices as it would have been had the words been read out to him?

Yet of course, he only hears the words because he has heard them sung or spoken before, and because, through their practised reiteration, they have left their mark in both aural and muscular consciousness. To read, then, is not just to listen but to remember. If writing speaks, it does so with the voices of the past, which the reader hears as though he were present in their midst. As the historian Mary Carruthers (1990) has shown with an abundance of examples, from late Antiquity right through to the Renaissance writing was valued above all as an instrument of memory. Its purpose was not to close off the past by providing a complete and objective account of what was said and done, but rather to provide the pathways along which the voices of the past could be retrieved and brought back into the immediacy of present experience, allowing readers to engage directly in dialogue with them and to connect what they have to say to the circumstances of their own lives. In short, writing was read not as a record but as a means of recovery. Carruthers notes that the word used in Greek Antiquity for reading – *anagignosko* – literally meant 'to recollect', and that the corresponding word in Latin – *lego* – likewise referred to a process of gathering or collecting. One classical author after another would describe this process by means of allusions to hunting and fishing, and to tracking down prey (Carruthers 1990: 30, 247). As André Leroi-Gourhan put it, in his massive treatise on *Gesture and Speech*, 'each piece of writing was a compact sequence, rhythmically broken up by seals and marginal notes, around which readers found their way like primitive hunters – by following a trail rather than by studying a plan' (Leroi-Gourhan 1993: 261).

This distinction between trail-following or wayfaring and pre-planned navigation is of critical significance. In brief, the navigator has before him a complete representation of the territory, in the form of a cartographic map, upon which he can plot a course even before setting out. The journey is then no more than an explication of the plot. In wayfaring, by contrast, one follows a path that one has previously travelled in the company of others, or

in their footsteps, reconstructing the itinerary as one goes along. Only upon reaching his destination, in this case, can the traveller truly be said to have found his way. A further elaboration of this distinction will have to await Chapter 3, where it will be my main topic. Suffice it to conclude at this point that readers of Antiquity and the Middle Ages were wayfarers and not navigators. They did not interpret the writing on the page as the specification of a plot, already composed and complete in itself, but rather saw it as comprising a set of signposts, direction markers or stepping stones that enabled them to find their way about within the landscape of memory. For this finding of the way – this guided, flowing movement from place to place – medieval readers had a special term, *ductus*. As Carruthers explains, '*ductus* insists upon movement, the con*duct* of a thinking mind on its *way* through a composition' (Carruthers 1998: 77, original emphases).

It would be wrong, however, to think of this mnemonic conduct as an exclusively cognitive operation, as though the text, story or route already existed as a complex composition that had first to be accessed and retrieved in its totality, prior to its bodily execution in writing, speech or locomotion. Though medieval thinkers did imagine that the work of memory inscribes the surface of the mind much as the writer inscribes the surface of the paper with his pen and the traveller inscribes the surface of the earth with his feet, they thought of these surfaces not as spaces to be surveyed but as regions to be inhabited, and which one can get to know not through one single, totalizing gaze, but through the laborious process of moving around. In reading, as in storytelling and travelling, one remembers as one goes along. Thus the act of remembering *was itself conceived as a performance*: the text is remembered by reading it, the story by telling it, the journey by making it. Every text, story or trip, in short, is a journey made rather than an object found. And although with each journey one may cover the same ground, each is nevertheless an original movement. There is no fixed template or specification that underwrites them all, nor can every performance be regarded as a compliant token that is simply 'read off' from the script or route-map (Ingold 2001: 145).

The reader's digest

With this conclusion in mind, let me return to our earlier distinction between the script and the score. Recall that, in terms of this distinction, the graphic marks on the page refer to concepts in the one case, and to actual sounds in the other: thus the script is read 'inwardly' in cognition, whereas the score is read 'outwardly' in performance. It should now be clear that, while the scribes of Antiquity and the Middle Ages were undoubtedly writing letters and words, the resulting literature could hardly qualify as scriptural in this sense. For one thing, the written marks directed readers, in the first place, to audible sounds rather than to abstract verbal meanings lying behind the sounds. For the eleventh-century Benedictine monk Guido

d'Arezzo, to whose scheme of musical notation I shall turn shortly, it was perfectly evident that every letter, just like every note of notation, calls up a particular *vox* or sound (Carruthers 1990: 18). For another thing the act of reading, whether it involved the vocal cords or only the silent movement of the tongue and lips, was a performance in which the reader would hear and converse with the voices of his textual interlocutors. There was no idea that reading could be an operation of the solitary intellect, cut off from its grounding in the reader's sensory immersion in the world around him (Howe 1992: 74). Reading, as Dom Leclercq observes, was understood as 'an activity which, like chant and writing, requires the participation of the whole body and the whole mind'. Thus it was that Peter the Venerable, suffering from a cold and having lost his voice, could not read, for 'he could no longer perform his *lectio*' (Leclercq 1961: 19–20). Granted, then, that the writing was read in performance, and that through this it was experienced as sound, might it not better be regarded as a score?

Once more, the answer has to be negative. It is neither script nor score, for the simple reason that meaning and sound, and cognition and performance, which modern thought aligns on either side of a distinction between language and music, are in the writing of classical and medieval scribes not opposed at all, but are rather aspects of the same thing. One was expected to read a text, continues Leclercq, 'with one's whole being: with the body, since the mouth pronounced it, with the memory which fixes it, with the intelligence that understands its meaning and with the will which desires to put it into practice' (Leclercq 1961: 22). Thus reading was, at one and the same time, both an 'acting out' and a 'taking in'. As I have already intimated, performance and cognition – or declamation and meditation – were as intrinsically linked as eating and digestion. Indeed medieval scholars had frequent resort to gastric metaphor in their commentaries on how writing should be read. Readers were exhorted to mouth the words in a murmur while turning over the text in memory, just as the cow moves her mouth in chewing the cud. In a word, one should *ruminate* (Carruthers 1990: 164–5).

Of a monk much given to prayer, Peter the Venerable exclaimed that, 'without resting, his mouth ruminated the sacred words' (Leclercq 1961: 90). Likewise the cowherd Cædmon, the hero of a tale told by the Venerable Bede, having been miraculously endowed with the gift of poetic composition and taken in for further instruction by the monks of the monastery for which he worked, is said by Bede to have 'learned all he could by listening to them and then, memorizing it and ruminating over it, like some clean animal chewing the cud, he turned it into the most melodious verse' (Colgrave and Mynors 1969: 419). Memory, here, is like a stomach that feeds on the nutrient of masticated words; it is saturated through reading as the stomach is filled through eating. And just as the stomach well filled with rich food finds relief in a sweet-smelling belch or fart, so – according to a statement attributed to St Jerome – 'the cogitations of the inner man bring forth words, and from the abundance of the heart the mouth speaks' (Carruthers

1990: 166). The more divine the words, the sweeter the sound. Recall that it was Jerome who advised his flock to sing 'more with the heart than with the voice'. As with a good belch, the vocal tract does not produce the sound, but merely releases it. What is learned by heart comes from the heart.

The origins of musical notation

We have established that for much of the history of writing, at least in the Western world, speech and song were not yet split into distinct registers. There was but one register, which was described by means of letters and words. Greek Antiquity had a category of vocal art known as *mousike*, but, as Eric Havelock explains and as we have already heard Plato declare, 'music in the melodic sense is only one part of *mousike*, and the lesser part, for melody remained the servant of the words, and its rhythms were framed to obey the quantitative pronunciation of speech' (Havelock 1982: 136). It is for this reason, Havelock surmises, that the Greeks never achieved a workable notation for their 'music'. Since they were unable to conceive of music apart from words, they never had cause to isolate musical notation from writing (ibid.: 345). The possible existence and nature of Ancient Greek musical notation is however a matter of some dispute among classical scholars. Martin West, for example, asserts that, from at least the fourth century BC, the Greeks had not just one but two parallel systems of notation, one for vocal and the other for instrumental music (West 1992: 7). Yet even these notations, if such they were, had very limited functions, and knowledge of them seems to have been restricted to a small minority of professional performers. There would have been no need for a separate notation to specify rhythms or note-values, since these were already intrinsic to the metres of the verses that were sung, with their built-in alternation between sounds of longer and shorter duration (ibid.: 129–30).

Even the melody of song, West admits, was partially based in features of the spoken language, specifically in those variations of pitch that the Greeks called *prosoidia*, or 'singing along'. They described speech by means of the same vocabulary of contrasts, such as high/low and tension/relaxation, which were also applied to melody (West 1992: 198). Commenting on the similarity, Aristoxenus of Tarentumi – a pupil of Aristotle well known for his arrogant and unscrupulous disregard for the works of his predecessors – declared that no one before him had given a thought to how the melodic forms of speech and song ought to be distinguished. The difference, he argued, is that, while in both speech and song the voice moves in pitch as though it were going from place to place, in speech the movement is continuous whereas in song it is intervallic:

> We say that continuous movement is the movement of speech, for when we are conversing the voice moves with respect to place in such a way

> that it never seems to stand still. In the other form, which we call intervallic, its nature is to move in the opposite way; for it does seem to stand still, and everyone says that the person who appears to be doing this is no longer speaking, but singing.
>
> (Aristoxenus, *Elementa Harmonica*, Book I, in Barker 1989: 133)

Aristoxenus himself had little time for the idea of a distinct musical notation, pouring scorn on the very idea that the writing of melody can contribute anything whatever to its comprehension, which can only come, he declared, 'from two things, perception and memory . . . There is no other way of following the contents of music' (ibid.: 155).

Nevertheless by the third century BC, according to West, an agreed system of melodic notation for vocal music was in general use among professional singers, comprising letter symbols to indicate pitch, placed above the syllables of the text (West 1992: 254). However, their purpose seems to have been largely mnemonic. Singers learned songs simply by hearing them sung, and would not have been helped by note-symbols (ibid.: 270). And the texts of lyrics were normally copied without such symbols, which were only added afterwards, in rather the same way that a contemporary instrumentalist might add fingering and bowing marks to a printed score. This practice of 'marking up' the text, however, had wider application in the field of oratory as well as that of singing, in signs of various kinds that were added above letters and syllables of the text in order to indicate the rise or fall of the voice at important points of declamation. We have already encountered the Greek term, *prosoidia*, for these song-like variations of pitch. The term was translated by the Romans as *ad-cantus*, which subsequently became *accentus* (ibid.: 198). A systematic set of accentuation marks for Greek and Roman literature was developed by Aristophanes of Byzantium, librarian of the Museum of Alexandria, around 200 BC. They were called *neuma*, from the Greek word for 'nod' or 'sign'. There were two basic accents, the acute and the grave, indicating respectively a raising and lowering, and these could be combined, for example into a V or N shape, to represent more complex vocal inflections (Parrish 1957: 4). It was in this form that the 'neumes', as they came to be called, were introduced into the earliest precursor in the history of Western writing for a distinctively musical notation, namely that devised for Gregorian chant.

Precisely when the neumes first came into use is unknown, for, while chants were being written from the fifth century AD, the oldest surviving manuscripts to have been marked up with neumes date from the ninth (see Figure 1.4). Moreover it appears that these markings, placed above letters and syllables, were later additions to the written page. In the Gregorian notation the acute accent kept its original shape, and was called the *virga*, or 'rod', while the grave was reduced to a *punctum*, or 'dot'. By combining these two basic marks in various ways, it was possible to generate a whole vocabulary of further neumes. Thus the *podatus*, or 'foot', comprising a dot followed by

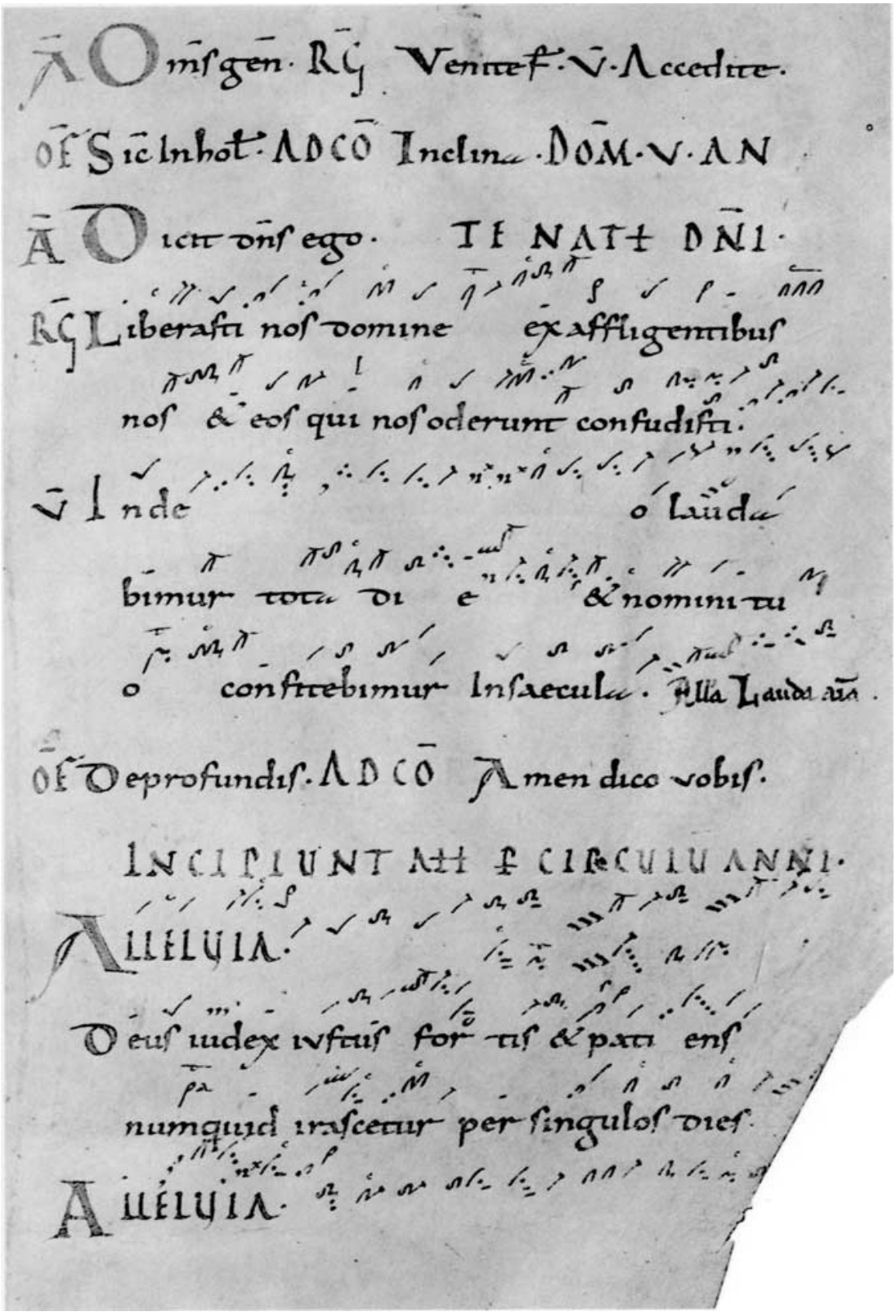

Figure 1.4 A late-ninth-century manuscript marked up with neumes, from the monastery of St Gall (St Gall, Cantatorium, Cod. 359, fol. 125).

a rod, indicated a lower note followed by a higher; the *clivis*, or 'bend', comprising a rod followed by a dot, indicated the reverse; the *scandicus*, or 'climb', comprising two dots and a rod, indicated three ascending notes; the *climacus*, or 'ladder', comprising a rod and two dots, indicated three descending ones; the *torculus*, or 'twist', comprising a dot, a rod, and another dot, indicated a lower, higher and lower note, and so on. There were different schools of neume notation, which are thought to have originated in the course of the ninth century, and these were distinguished in part by the way in which the more complex, multi-note neumes were written, whether by means of points or strokes or some combination of the two. The squaring of the figures, with thin vertical and thick lateral or oblique lines, and with individual notes distinguished as square or diamond-shaped blocks, was a consequence of the replacement of the reed-pen by the quill-pen in the thirteenth century. Figure 1.5, taken from the authoritative work on the subject by Carl Parrish, shows the most commonly used neumes of the principal schools of notation, roughly in chronological order from left to right, and in order of complexity from top to bottom. The far right-hand column shows the equivalent in modern notation.

The earliest notations gave little or no indication to their readers of what notes to sing. Indeed this was a matter of slight importance. The essence of the song, as we have seen, lay in the sonority of its words, and it was assumed that singers would have already known the words of the chants by heart. Just as melody was understood as a mere embellishment of vocal sound, so the neumes were seen as entirely accessory to the written words. They formed what Parrish calls 'a system of melodic reminders', helping the singer to remember the prosodic nuances to be adopted in the pronunciation of each syllable (Parrish 1957: 9). Some schools of notation, however, were at pains to indicate differentials of pitch by placing the neumes at various distances above an imaginary horizontal line. In manuscripts from around the tenth century, the imaginary line was replaced by a real one, actually scratched on the parchment. The decisive step towards the modern system of notation was taken in the eleventh century by Guido d'Arezzo. The neumes, Guido recommended, should be written in such a way that each sound, however often it be repeated in a melody, should always be on its own row. To distinguish these rows, lines are to be drawn close together, so that some rows of sounds are on the lines themselves and others in the intervening spaces. Thus written, a man could learn to sing a verse without ever having heard it beforehand, as Guido demonstrated on a visit to the Pope, John XIX. The Pope was reportedly so excited by Guido's invention that he insisted on trying it out himself, to his evident satisfaction (Strunk 1950: 117–20).

In hindsight, we can readily recognize this system for notating the melodic aspect of song as the precursor of the now familiar stave score. However, it would be wrong to jump to the conclusion that the system was a fully fledged musical notation. For so long as the essential musicality of song was held to lie in the intonation of its words, the neumes remained accessory to the

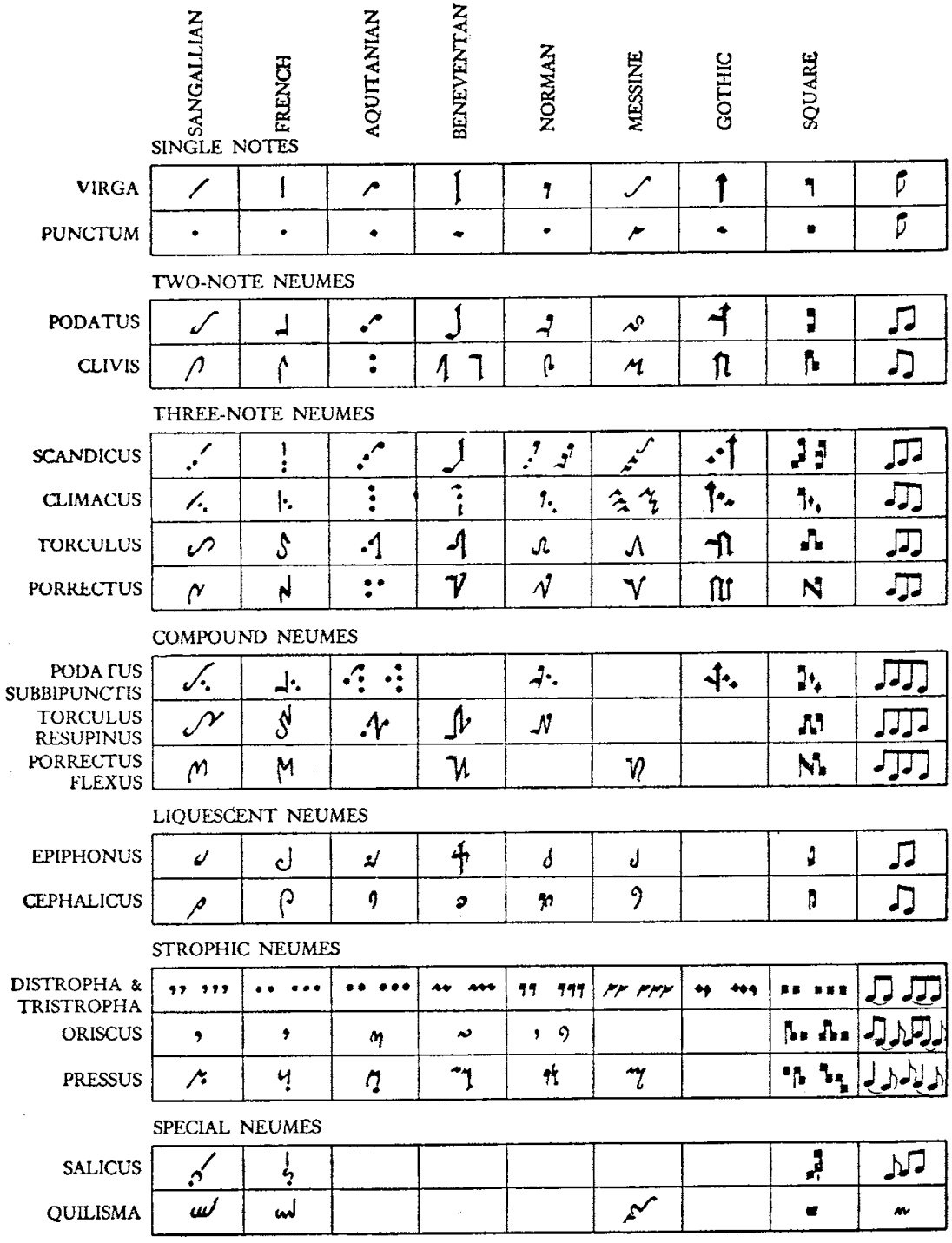

Figure 1.5 The neumes of Gregorian notation. Reproduced from Parrish (1957: 6). From *The Notation of Medieval Music* by Carl Parrish. © 1957 by W. W. Norton & Company Inc. Used by permission of W. W. Norton & Company Inc.

song itself, which was inscribed primarily in the letters of writing. Like the fingerings on a modern instrumental score, they served as annotations to assist the performer, rather than to index the music as such. Just as, on a score, one could erase all the fingerings without losing anything of the music,

so one could erase all the neumes from a medieval manuscript without losing anything of the song. What would be lost, in each case, would be something of the player's or singer's ability to perform, due to the removal of the necessary prompts, cues or reminders. Just as with the letter-based note-symbols of Ancient Greece, the written neumes served a wholly mnemonic purpose: they were there to help pupils to learn songs by heart, and especially songs that they had never heard before. 'After I began teaching this procedure to boys', Guido boasted, 'some of them were able to sing an unknown melody before the third day, which by other methods would not have been possible in many weeks' (Strunk 1950: 124). But this was not sight-reading. It still took up to three days, and the pupils could not properly perform until they had committed the song to memory. With the help of the notation, however, they could memorize it that much more quickly.

It would be many centuries before the writing of notes or ligatures upon a stave would emerge as a musical notation in its own right, for this could come about, in Goehr's words, 'only when music liberated itself completely from the text' (Goehr 1992: 133). In the modern score the neumes have undergone an immense elaboration to form a system that has cut loose from its original connection to words. In the script, by contrast, they survive in our time only in its interstices, in the form of punctuation marks. The strange and obscure history of punctuation would deserve a chapter in itself; suffice it to say here that the origins of punctuation lie in the same practices, of marking up already written manuscripts to assist the orator in the phrasing and delivery of texts to be intoned or sung, as those of neumatic notation (Parkes 1992: 36). Indeed it was Aristophanes of Byzantium who first introduced the comma, the colon and the period as part of his general scheme for annotating Greek texts that also included the precursors of the neumes (Brown 1992: 1050). Much later, from around the ninth century AD, these were joined by additional marks – the *punctus elevatus*, *punctus interrogativus* (precursor of the question mark) and *punctus flexus* – which served to indicate not just a pause but an appropriate inflection of the voice, such as at the end of a question or of a subordinate clause in an as yet unfinished sentence. The source of these new marks, according to T. Julian Brown, was none other than 'the system of musical notation, called neumes, which is known to have been used for Gregorian chant from at least the beginning of the 9th century' (Brown 1992: 1051)!

Once music had been cut loose from words, what had before been an indivisible, poetic unity, namely the song, became a composite of two things, words and sounds. Thenceforth the single register of song, written in letters and words but embellished with accents and inflections indicated by means of both neumes and punctuation marks, was split into two distinct registers, one of language and the other of music, notated respectively by separate lines of script and score which were to be read in parallel. Nowadays, the words of a song are written as a script that accompanies the score. Remove the script and there is still a voice, but it is a voice without words. Remove

the score, and there is no sound, no voice, only a chain of words, inert and silent. In the familiar example reproduced in Figure 1.6, the remaining punctuation marks – including commas, inverted commas, parentheses and a semi-colon – serve merely to indicate joints in the syntactical construction of the text and are of no assistance to the singer. Indeed, if anything, they interfere with performance, bearing no obvious relation to the melodic structure or phrasing of the song. To help the singer line up the words with the music, an irregular punctuation has to be introduced in the form of hyphens *within* the words themselves, so as to elongate them beyond their normal printed length. As Havelock puts it, we 'lay words on the rack' of music – stretching them, compressing them and modifying their intonation to conform to its rhythmic and melodic requirements (Havelock 1982: 136). Music has become the master of diction, no longer its servant. Once essential to the musicality of the song, the words are now 'added on' to the music, as accessories. But how did sound come to be expelled from the written word? How did the page lose its voice?

How the page lost its voice

For the answer we have to go back to a distinction I introduced earlier, between wayfaring and navigation. Recall that, for readers of medieval times, the text was like a world one inhabits, and the surface of the page like a country in which one finds one's way about, following the letters and words as the traveller follows footsteps or waymarkers in the terrain. For modern readers, by contrast, the text appears imprinted upon the blank page much as the world appears imprinted upon the paper surface of a cartographic map, ready-made and complete. To follow the plot is like navigating with the map. Yet the map effaces memory. Had it not been for the journeys of travellers, and the knowledge they brought back, it could not have been made. The map itself, however, bears no testimony to these journeys. They have been bracketed out, or consigned to a past that is now superseded. As de Certeau has shown, the map eliminates all trace of the practices that produced it, creating the impression that the structure of the map springs directly from the structure of the world (Certeau 1984: 120–1; Ingold 2000: 234). But the world that is represented in the map is one without inhabitants: no one is there; nothing moves or makes any sound. Now in just the same way that the journeys of inhabitants are eliminated from the cartographic map, the voices of the past are eliminated from the printed text. It bears no witness to the activity of those whose labours brought it into being, appearing rather as a pre-composed artefact, a work. Language is silenced.

This is the point at which to return to my earlier assertion that the silencing of language, and its consequent separation from music, came about not with the birth of writing but with its demise. The end of writing, I believe, was heralded by a radical change in the perception of the surface,

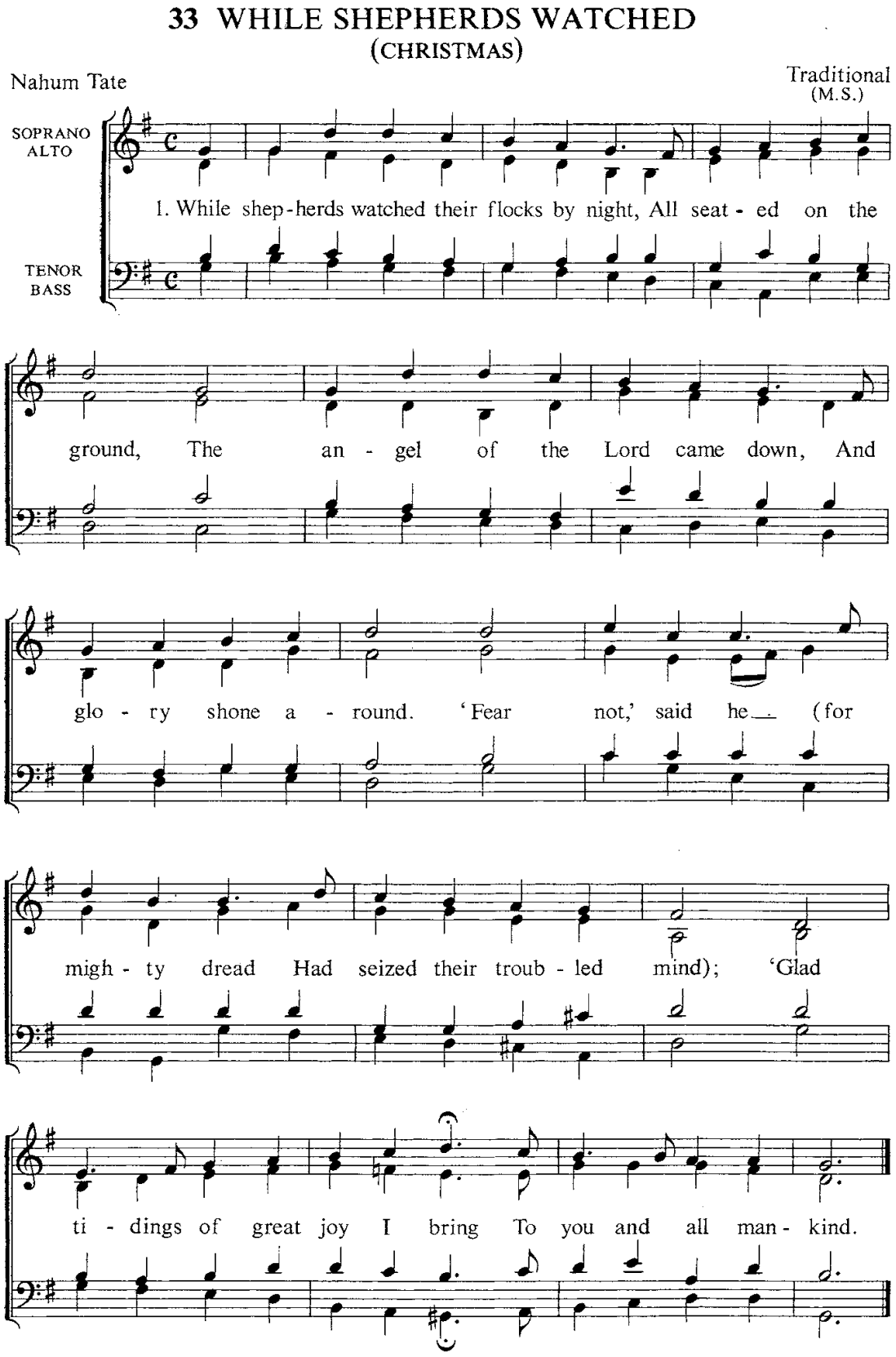

Figure 1.6 The parallel registers of words and music, from a modern book of carols: *While Shepherds Watched*, arranged by Martin Shaw. Reproduced from Dearmer, Vaughan Williams and Shaw (1964: 66). From *The Oxford Book of Carols*. © Oxford University Press 1928. Reproduced by permission.

from something akin to a landscape that one moves *through*, to something more like a screen that one looks *at*, and upon which are projected images from another world. Writing, at least in the sense in which I have been talking about it here, is a handicraft, the art of scribes. The lines inscribed on the page, whether in the form of letters, neumes, punctuation marks or figures, were the visible traces of dextrous movements of the hand. And the eye of the reader, roaming over the page like a hunter on the trail, would follow these traces as it would have followed the trajectories of the hand that made them. For example, *chironomic* neumes, found in many of the oldest manuscripts, were so called because they corresponded to the manual gestures of the choir leader (Parrish 1957: 8). In just the same way as with choral singing, following with the eye and following with the voice were part and parcel of the same process – that of making one's way, actively and attentively, through the text. Looking and listening were not then opposed, as they came to be in modernity, along the axis of a division between visual speculation and aural participation.

It was the technology of print that broke this intimate link between manual gesture and graphic inscription. I would hesitate to claim that printing was the *cause* of the changes in perception I have outlined, since parallel developments were going on in many other fields – for example in engineering and architecture. In every case, however, the outcome was the same: to split skilled handicraft into separate components of 'imaginative' design or composition and 'merely' technical execution, with the consequent reduction of manual labour – whether of the printer, builder or mechanic – to the implementation of pre-determined operational sequences that could just as well be done by machine (Ingold 2000: 349–50). I shall return to this theme in Chapter 5. For the present, we need only observe that in the field of literature the work of composition is attributed to the author. Though we say of the author that he writes, referring archaically to the result of his work as a manuscript, this is evidently the one thing he does not do. Of course he may use pen and paper to assist him in his deliberations. But this scribbling is just one of a plethora of activities entailed in composition, from talking to oneself to pacing the walls of one's study, all of which are antecedent to the transfer of the completed work onto the printed page. And if the author does not write, neither does the printer, for, whereas writing is a process of inscription, printing is one of *impression* – of a pre-composed text upon an empty surface that has been made ready to receive it. Whatever gestures may be involved in the process, whether manual or mechanical, they bear absolutely no relation to the shapes of the graphic marks they serve to deliver.

The word nailed down by print

With this I return to the thesis of Walter Ong, namely that it was writing that laid the word to rest, converting it into a quiescent object for assimilation by

vision. Now even Ong has to acknowledge that this is not entirely true, for he cannot deny that, for readers of manuscripts, words were anything but quiescent. They were perceived to throb with sound and movement. Ong attributes this perception to a 'lingering hearing-dominance' that persisted on the margins of manuscript culture and that was only finally expelled with the advent of print. It is as though handwritten lines continued to wriggle around, refusing to be quelled by the objectifying duress of visual surveillance. Only with print, it seems, was the word finally nailed down. As Ong admits, 'print suggests that words are things more than writing ever did, . . . it was print, not writing, that effectively reified the word' (1982: 119–21). Indeed it is hard to avoid the impression that Ong is trying to have it both ways. On the one hand he would have us believe that 'all script represents words as in some way things', and that in this regard print only continued a process of reification that had been initiated thousands of years earlier with the advent of writing (ibid.: 82, 91). Yet if he is right to claim, on the other hand, that it was print and not writing that *effectively* turned words into things, then what happens to his initial thesis, that words become things at the point at which they are rendered in a visible form? Are not handwritten words just as visible as printed ones?

To resolve the contradiction, we need to look again at the distinction between writing and speech. Though frequently debated in terms of a single axis of contrast between orality and literacy, on closer inspection it turns out that speech and writing are really distinguished along two quite separate axes of contrast, the first between aural and visual sensory modalities, the second between bodily gesture (which may be vocal or manual, or both) and its inscription as a trace on some material surface. Compounding these axes gives us not two alternatives but four: (1) aural–gestural, (2) visual–inscriptional, (3) aural–inscriptional and (4) visual–gestural (Figure 1.7). The first and second alternatives correspond to our contemporary understandings of ordinary speech and writing respectively. We think of speech as comprising vocal gestures that are heard, and of writing as comprising inscribed traces that are seen. Without modern recording equipment the voice does not normally leave any enduring trace, so that the third alternative, taken literally, would have become a practical possibility only in recent times. Yet let us not forget the words of the prophet Jeremiah's scribe, Baruch, who claimed to have rendered in ink the pronouncements mouthed by his mentor. This was an instance of *dictation*, an oral reading out that was indeed expected to yield a durable inscription, albeit in visible form.

The scribe, of course, works with his hands. Were it not for this manual movement nothing would ever be inscribed in writing. Yet following the precedent set by Ong, most discussions of speech and writing have bypassed the hand and its work. Focusing exclusively on the contrast between aural and visual modalities, and their respective properties, they have failed to attend to the relation between gestures and their inscriptions. Thus writing has been understood simply as a visual representation of verbal sound,

	Gesture	Inscription
Aural	SPEECH	DICTATION
Visual	MANUAL GESTURE	WRITING

Figure 1.7 Speech, writing, diction and manual gesture.

rather than as the enduring trace of a dextrous manual movement. This point brings me to the fourth alternative in Figure 1.7, namely the visual apprehension of manual gesture. Such apprehension is characteristic of most human communication in face-to-face situations. All of us gesture with our hands as we speak, and these gestures would be pointless if they could not be seen. Moreover there are forms of language, such as the signed language of the deaf, which are entirely silent and work through manual gesture alone. As the example of signed language shows, however, looking at words can be every bit as active, dynamic and participatory as listening to them. 'The idea that there is a metaphysical gulf dividing communication by visible gestures from communication by audible words', claims Jonathan Rée, 'is a fantasy without foundation, a hallucination rather than a theory' (Rée 1999: 323–4).

He is right. Signed words are no less mobile and active, and no more thing-like, than spoken ones. Moreover so long as the movement of the hand leaves an immediate trace on the page, there is no great difference between looking at signed words and looking at written ones. These observations should dispel once and for all the widespread illusion that there is something inherently reifying about vision.[3] It is not vision that reduces words to things, but rather the disconnection of the technically effective gesture from its graphic outcome that occurs when words are printed instead of written. To read a manuscript, as we have seen, is to follow the trails laid down by a hand that joins with the voice in *pronouncing* the words of a text. But there are no trails to follow on the page of print. The eye of the reader surveys the page, as I show in Chapter 3, but does not inhabit it. And it is precisely because we are already convinced that the words it finds there are things that vision is reduced, in our understanding, to a faculty of disinterested surveillance, set apart from the more dynamic and participatory sense of hearing.

Chanting with (and without) an instrument

I began with a puzzle about the distinction between speech and song. I have shown that we cannot solve this puzzle without also considering the changing relation between writing and musical notation. Both involve lines and surfaces. But in the transition from the medieval manuscript to the modern printed text, and from the ancient neumes to modern musical notation, it is not only the forms of the lines that have changed. There have also been fundamental changes in the understanding of what a line is, and of its relation to surface, to gesture and especially to vision and sound. Thus, starting from the issue of speech and song we have arrived at an entire agenda of inquiry into the nature and history of the line that will occupy us for the remainder of this book. Before proceeding, however, I should like to reassert my disciplinary identity by indulging in a favourite diversion of social anthropologists, namely the invocation of comparative examples from non-Western societies. I do this in full recognition of the dangers of drawing glib and superficial parallels between traditions of knowledge and practice of a complexity and historical depth fully equal to our own. My purpose, however, is merely to indicate that the issues we have confronted in examining the history of notation in the Western world, from Antiquity to the modern era, are by no means confined to this region but have clear resonances elsewhere. My two examples come from Japan and the Peruvian Amazon.

The music that traditionally accompanies performances of the Japanese *noh* theatre is called *shōga*, which literally means to sing or chant. But the same word can refer to the sounds of musical instruments, and to their written notations. While every instrument has its own form of *shōga*, what is common to all of them is that they can be sung or recited with the voice. In what follows I am concerned with one particular instrument, the *fue*, or flute. My information comes from the work of anthropologist Kawori Iguchi, who studied the flute in the course of her ethnographic inquiry into the learning and practice of traditional music in the Japanese city of Kyoto (Iguchi 1999). To anyone familiar with modern Western musical notation, the *shōga* for the *fue* seems very odd indeed, for it is written entirely in characters drawn from the Japanese katakana syllabary. These characters may be read aloud, as word sounds, in a kind of murmur or hum. Since every syllable in the *shōga* is like a vowel, a string of characters reads as an unbroken stream of sound, which nevertheless undergoes continuous modulation with the changes in the positions of the tongue and lips, and hence in the shape of the mouth cavity, entailed in the pronunciation of each successive syllable. For example, the section of notation illustrated in Figure 1.8 reads – from top to bottom – as *o-hya-a-a-a-a-ra*. It is in this flow of vowelic onomatopoeia, of verbal sound, that the essence of the music is held to consist. Yet the katakana syllables are pronounced in just the same way in ordinary speech. It is therefore impossible, as Iguchi points out, to draw a clear division

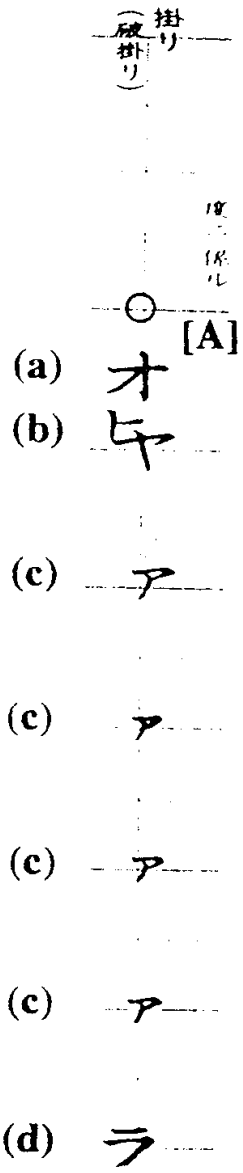

Figure 1.8 Phrase from *kakari* section of *chu-no-mai*: (a) *o*, (b) *hya*, (c) *a*, (d) *ra*. Reproduced from Iguchi (1999: 90), by permission of Kawori Iguchi.

between the sounds of speech and the sounds of music. In the chant, speaking and singing are one and the same (Iguchi 1999: 108).

Where, then, does the flute come into it? The flute is a melodic instrument, yet the melody itself is incidental to the music. It is a decorative embellishment. Thus the music is the same, whether or not the player puts the flute to his lips. If he does not, the music comes out as a vocal hum; if he does, it comes out as the tuneful sound of the flute. When an inexperienced player is called upon to give an important performance, a teacher sits behind him ready to 'stand in' by humming the *shōga* in the event that the player stumbles or fails to keep going. In a *noh* performance, it is critical that the music should continue without interruption, whatever accidents might

befall the players. If a performer were to collide on stage with the *fue* player, causing the latter to drop his instrument, he would continue with the vocal recitation of the *shōga* until he managed to pick it up. Even members of the audience may hum the *shōga* to themselves as they hear the *fue* being played (Iguchi 1999: 88, 107).

There is an uncanny parallel here between the Japanese *shōga* and the *mousike* of Greek Antiquity. Where the chant of *shōga* is written by means of the katakana characters for vowel sounds, that of *mousike* was written by means of letters of the alphabet – which were themselves products of the attempt to write the vowel sounds of Greek by means of characters taken from the script for a Semitic language in which vowels were relatively insignificant (Olson 1994: 84). With both *shōga* and *mousike*, the essence of music lay in the sonority of verbal syllables, whereas the melodic aspect was ancillary or even superfluous. It would be tempting to take the parallel one step further, observing that in both cases, too, the principal melodic instrument was the flute. This, however, would be a mistake. The Greek instrument, the *aulos*, though commonly described as a flute, was not really that at all. It was in fact a double-reed instrument, most closely resembling the medieval shawm or modern oboe (Barker 1984: 14–15; West 1992: 81). It was usual for two instruments to be played simultaneously, one held in each hand. However, as with the flute, different notes were obtained by stopping holes with the fingers.

Both Havelock and West describe an Athenian vase from around 480 BC, depicting a series of lessons in music, poetry and recitation. Figure 1.9 reproduces the scenes depicted on the vase as seen from one side. The seated

Figure 1.9 Lessons in reciting, from the Kulix of Douris, *c.* 480 BC (bpk/ Antikensammlung, Staatliche Museen zu Berlin). Photo: Johannes Laurentius. Reproduced by permission.

figures are evidently grown-ups, while the shorter, standing figures are younger pupils. The seated figure on the right could be a proud parent (Havelock 1982: 201–2) or a slave who has brought the boys to school (West 1992: 37). In the middle, the seated figure holding what every modern reader would immediately identify as a lap-top computer is supposedly writing something while the pupil waits (he cannot be correcting the pupil's work, since he is using the sharp point of the stylus rather than the flat end which would be used for erasure). Havelock (1982: 203) speculates that he is writing a text that the student will then have to recite, and thereby commit to memory. What is going on, then, between the pair of figures on the left? This looks like a music lesson. But notice that it is the teacher, seated, who plays the *auloi*. The pupil, standing, has no instrument at all! Evidently, he is reciting *mousike* to his teacher. Change the instrument, and this could almost be a depiction of a lesson in traditional Japanese music. Here, too, the novice flautist would have to learn to recite the *shōga* before even touching the instrument. Indeed it is common to the melodic instruments of traditional Japan, as Iguchi observes, 'that their melodies can be sung or recited with the mouth' (Iguchi 1999: 87).

Now melody, as we normally understand it, comprises a sequence of notes each with a determinate pitch. Yet the *shōga* gives no indication of pitch. How, then, does the flautist know which notes to play? The answer lies in the fingering. On the *fue*, every fingering – which stops a particular combination of holes – specifies a note. Figure 1.10 shows a page of *shōga* written for Kawori Iguchi by her flute teacher, Sugi Ichikazu, during an introductory lesson. It is to be read from top to bottom, and from right to left. The *shōga* itself has been written with a black pen, and the fingerings in red. To these, Ichikazu has also added diagrams of the holes of the flute, shown as circles that have been filled in for the holes to be stopped. But he never drew these diagrams again. Normally the fingering is written, as here, in Chinese characters, each of which is the name for a particular arrangement of the fingers, a particular finger-hole on the flute, and the particular tone that results. As the *fue* is a solo instrument, there is no attempt to standardize the tuning: thus the same note, played on different instruments, may register quite differently on an absolute scale of pitch. Nor, however, is there any attempt to standardize the fingering (Iguchi 1999: 106). An expert flautist could display his virtuosity by using an elaborate, decorative fingering. The melodic effect would be quite distinctive – so distinctive, indeed, that listeners unfamiliar with the *noh* would probably be unable to recognize it as a realization of the same piece as that effected through conventional fingering. Yet regardless of the fingering adopted, the underlying *shōga* remains identical.

In short, with the *shōga* as with Gregorian chant, melodic inflections embellish the music without fundamentally altering it. And by the same token, the fingerings – with their associated holes and tones – are accessory to the written katakana syllables of the *shōga* notation, just as the neumes

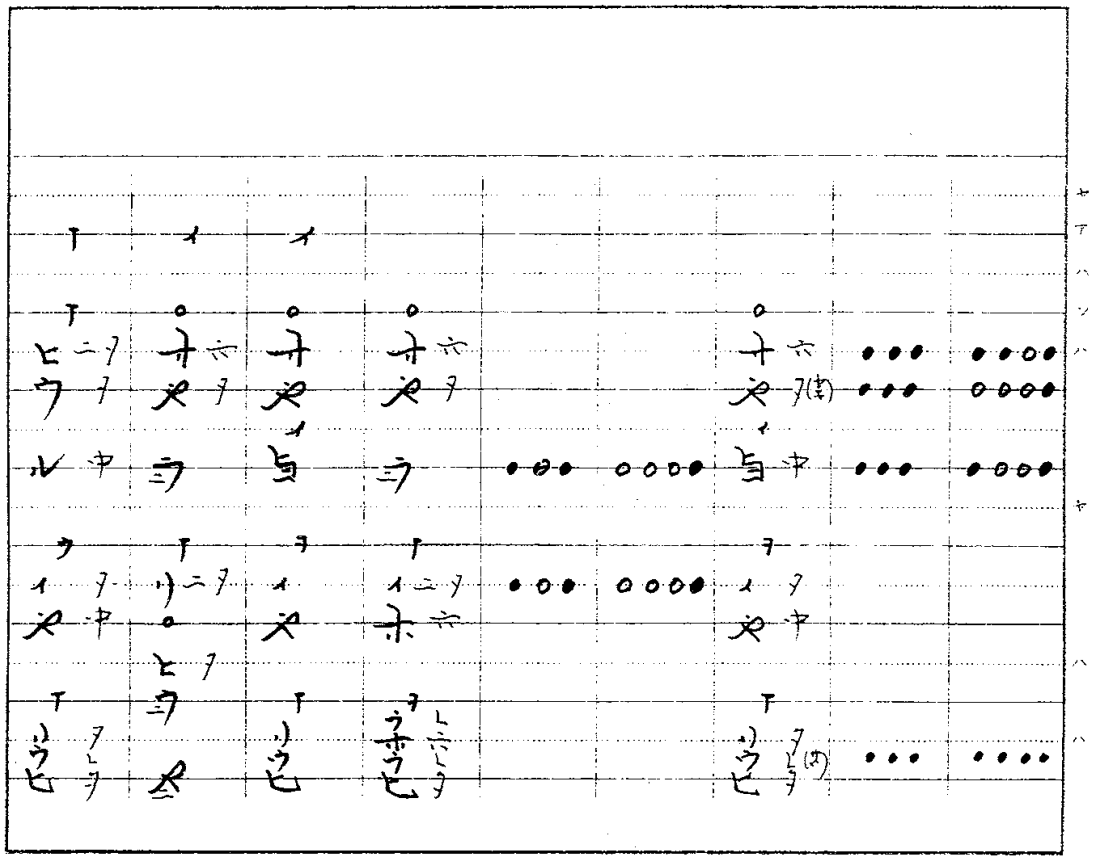

Figure 1.10 The first *shōga* written for Kawori Iguchi by her flute teacher. Reproduced from Iguchi (1999: 94), by permission of Sugi Ichikazu.

were accessory to the words and letters of the medieval song-book. They are merely annotations, and form no part of the music *as such*. As I have already observed, a stave score may be annotated with fingerings in much the same way. Like Japanese *fue* players, Western instrumental musicians, performing from a score, can develop their own idiosyncratic techniques of fingering for playing an identical passage (see Figure 1.11). But there is a critical difference. In Japanese traditional music, as we have seen, both the fingering and the melody produced by it are contingent aspects of performance, while the essence of the music lies in the component of verbal sound. On the stave score, by contrast, every note is specified without reference to how it is fingered. Thus although the fingering remains contingent, the melody is not. It is an aspect of *what* is performed, not of *how* it is performed, pertaining to the music itself rather than the technique of producing it. The difference is very similar to that which divides the Western music of the modern era from its medieval precursor. As the musicality of song was transferred from its verbal to its melodic aspect, so melody was detached from the bodily gestures – whether dextrous or vocal – involved in producing it. And by the same token, the notation of melody ceased to be a notation of gesture.

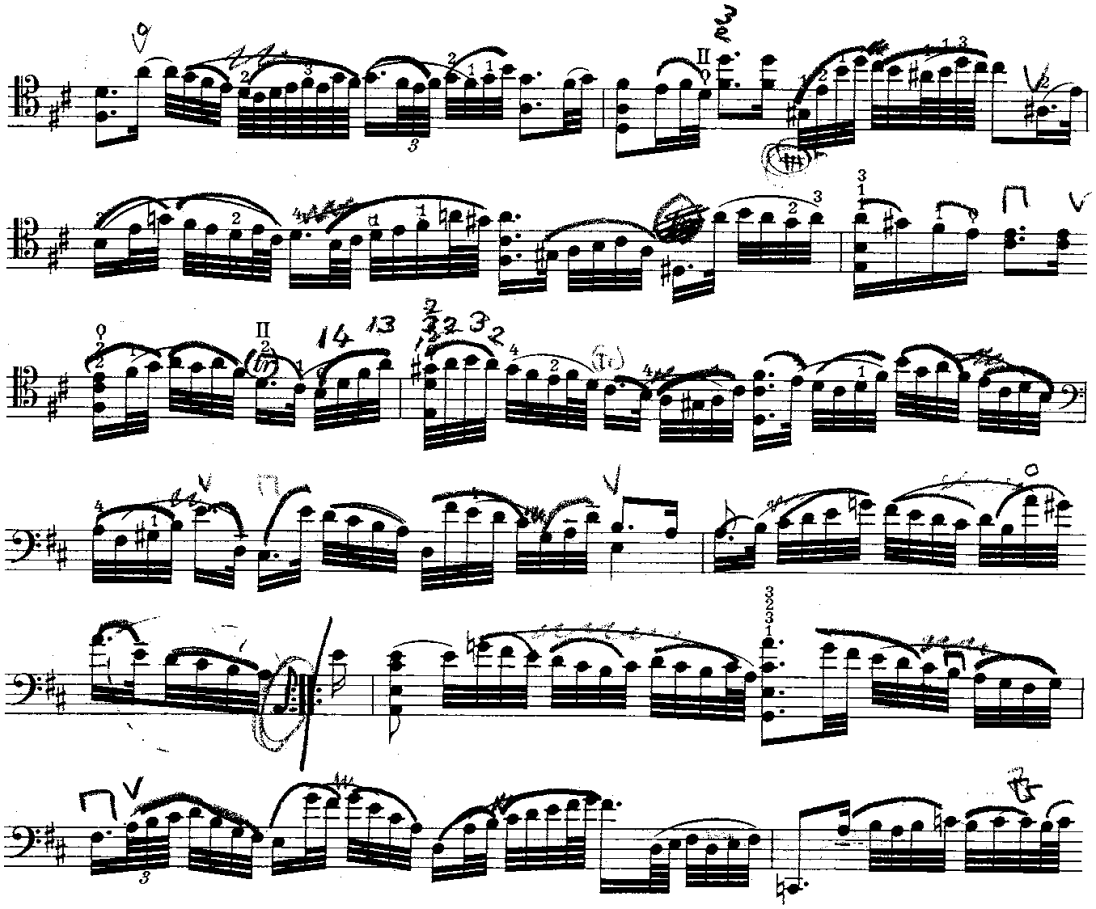

Figure 1.11 Part of a page from my copy of the score of the sixth suite for solo violoncello by Johann Sebastian Bach, showing pencilled bowings and fingerings.

Lines of sound

My second comparative example comes from eastern Peru, and I begin with a story reported and analysed by the anthropologist Peter Gow (1990), drawn from his fieldwork among the Piro people of this region. The story concerns one individual, Sangama, reputed to be the first Piro man who could read. Told by his younger cousin Moran Zumaeta, and recorded by the missionary Esther Matteson in the 1940s, the events to which the story refers may be dated to around the second decade of the twentieth century. At that time, the Piro were living alongside their white colonial bosses, on *hacienda* plantations, in a condition of debt-slavery. According to Zumaeta's account, Sangama would pick up newspapers discarded by the bosses and read from them. As he read, his eyes would follow the letters and his mouth would move. 'I know how to read the paper', Sangama professed to his cousin Zumaeta. 'It speaks to me . . . The paper has a body; I always see her, cousin . . . She has red lips, with which she speaks.' Zumaeta tells of how he too stared at the paper, but could see no one. But Sangama was insistent, going on

to interpret the behaviour of his white bosses in the same terms. 'When the white, our patron, sees a paper, he holds it up all day long, and she talks to him . . . The white does this every day' (Gow 1990: 92–3). As Gow goes on to explain, Sangama's understanding of what it means to read can only be understood if we take account of two particular aspects of Piro culture. The first concerns the significance of design in the control of surfaces; the second has to do with shamanic practice.

The word for writing in the Piro language is *yona*. This term, however, is also used for the intricate, linear designs or patterns that Piro apply to certain surfaces, especially surfaces closely associated with people and, above all, those of the face and body. Evidently for Sangama, the pattern of newsprint on the paper constituted a design in this sense. Thus he perceived the paper as a surface akin to the skin of the body. Now in the healing rituals of the Piro, as among neighbouring Amazonian peoples, the shaman – having taken an infusion of the hallucinogenic vine known as *ayahuasca* – becomes conscious of brilliant snakelike designs that appear to cover his entire field of vision. These are the initial, terrifying manifestations of the spirit of the vine. But as they reach his lips they are converted into songs, through which the spirit reveals herself in her true form as a beautiful woman. It is these songs, as they are wafted through the air and penetrate the body of the patient, that effect the cure. Sangama, it seems, was reading the newspaper with the eye of a shaman. As he gazed at the serpentine patterns formed by the printed letters, the surface of the paper melted away, and there instead was the face of a lovely woman with red painted lips. Zumaeta himself suggests that his elder cousin may have possessed shamanic powers, since he was alleged to have been born one of twins, and twins are supposed to be innately endowed with such powers.

Principles of linear design and shamanic practice very similar to those of the Piro are also found among the Shipibo and Conibo Indians, who inhabit a neighbouring region of the Peruvian Amazon. Shipibo–Conibo designs are composed of continuous angular lines that loosely interlock to form a filigree pattern covering the entire field. The designs are embroidered on textiles, and painted on the surfaces of both ceramic pots and the face. In the past they also appeared on thatched roof interiors, on house posts and beams, and on mosquito tents, boats and paddles, and kitchen and hunting equipment (Gebhart-Sayer 1985: 143–4). Moreover it appears that around the end of the eighteenth century, under the influence of Franciscan missionaries, the Indians had begun to draw their patterns on pages of cotton fabric bound by threads into 'books' with palm-leaf covers. During a stay in Lima in 1802, the explorer Alexander von Humboldt met the missionary Narcissus Gilbar, who told him of the existence of these books. One exemplar was dispatched to Lima and inspected by some of Humboldt's acquaintances, but was subsequently lost. However, a report on the subject that Humboldt published on his return has led scholars to speculate ever since on the possibility that the Indians (known then as Panoans) might have

possessed some form of hieroglyphic script. Concluding a review of these speculations some hundred years later, Karl von den Steinen drew particular attention to Gilbar's report that 'for "to read" the Panoans use the charming expression "the paper is talking to him"' (ibid.: 153–4). Unfortunately none of the original books survive today. However, during fieldwork in the Shipibo–Conibo community of Caimito in the early 1980s, the anthropologist Angelika Gebhart-Sayer was told that an old man from a nearby village, the son-in-law of a shaman, had kept a school exercise book whose pages were filled with intricate red and black patterns. One woman remembered how, as a child, she had managed secretly to get hold of the book and to copy four of the designs before being caught and scolded by her grandmother. She claimed never to have forgotten them, and was able to redraw them from memory. One of her drawings is reproduced in Figure 1.12.

As Gebhart-Sayer notes, von den Steinen was probably right to be sceptical of the claim that an indigenous system of hieroglyphic writing existed in the Peruvian Amazon. But could it have been a system of musical notation? In the shamanic healing ceremony of the Shipibo–Conibo, just as among the Piro, the designs which float before the shaman's eyes are – as they touch his lips – at once converted into melodious song. There are evidently certain parallels, in principles of division and symmetry, between the designs and the songs. In the past, women would sometimes work in pairs to decorate large pots. Sitting opposite one another, with the pot between them, neither could see what the other was painting. However, by singing as they worked they were supposedly able to harmonize their performance to such an extent that on completion the two halves of the design, on each side of the pot, would be perfectly matched and joined up. This degree of co-ordination, Gebhart-Sayer surmises, must have involved 'some kind of musical code' (1985: 170). However, in using their song to harmonize the design, Shipibo–Conibo painters were doing just the opposite of European choristers who would use written notation to harmonize their polyphonic song. Indeed from the argument I have developed in this chapter, it should be clear that Shipibo–Conibo designs form neither a script nor a score. They no more represent words or concepts than they do musical sounds. They are rather the phenomenal forms of the voice as they are made present to the listening eye. The songs of the Shipibo–Conibo, as Gebhart-Sayer herself remarks, 'can be heard in a visual way, . . . and the geometric designs may be seen acoustically' (1985: 170). The visible lines of the designs are themselves lines of sound.

We shall consider the Shipibo–Conibo and their designs further in Chapter 2. Let me now return to Sangama. Corroborating Gilbar's report on the Panoans, Sangama believed that the papers he was reading were actually speaking to him. Now in his analysis of Sangama's story, Gow is at pains to contrast Sangama's perception of the written word with conventional Western understandings, and the difference is clearly great. For the modern Western reader, as we have seen, the paper is no more than a screen upon

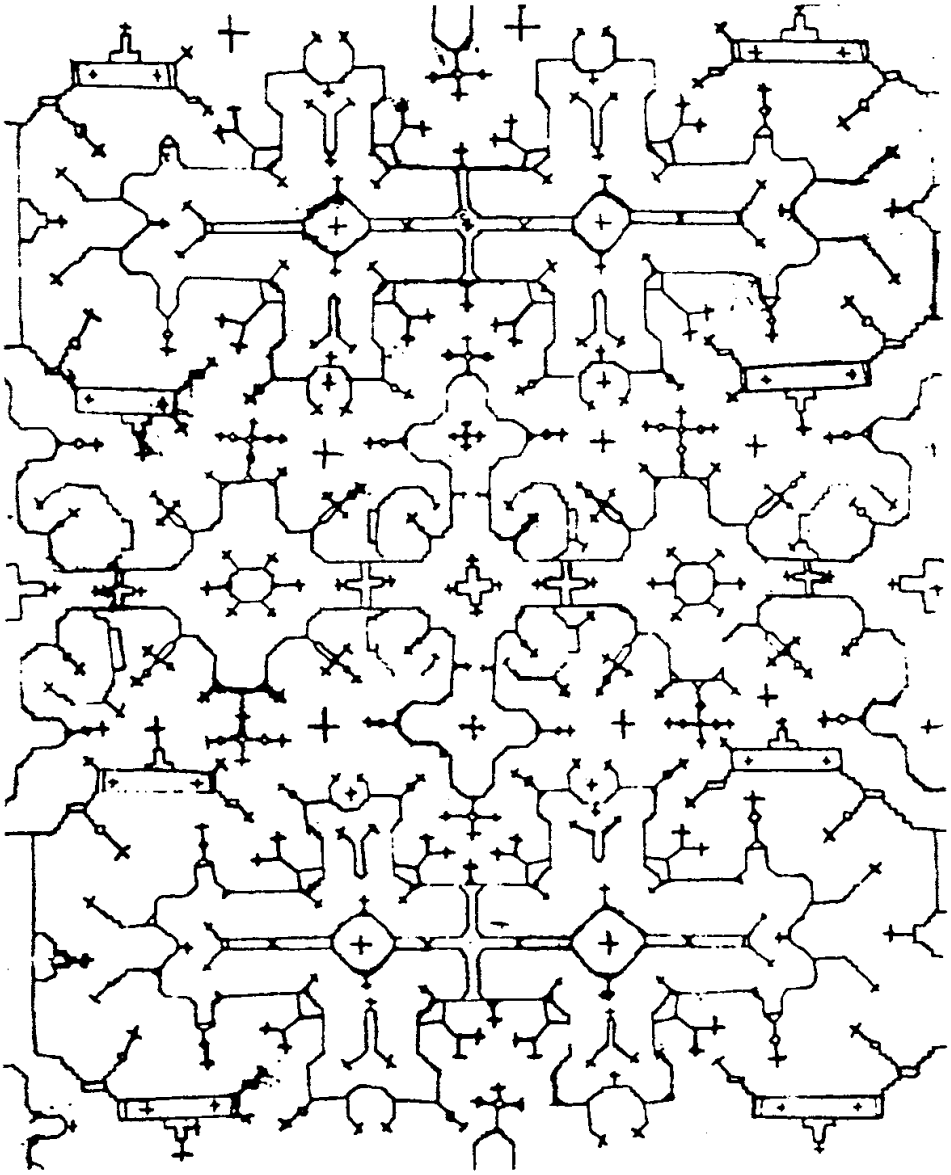

Figure 1.12 One of the designs from the sacred book of a Shipibo–Conibo shaman, drawn from memory by a woman from the village of Caimito in 1981. Reproduced from Gebhart-Sayer (1985: 158).

which are projected graphic images of verbal sound. Sangama, however, did not see images of sounds; he saw the spoken sounds themselves, as they were addressed directly to him. He was listening with his eyes, and the sounds he heard were as real as they surely were to the scribe Baruch as he took down the words of the prophet, his mentor. As Baruch followed with his pen the mouth of the prophet, so Sangama followed the painted lips of the woman he professed to see. In effect, he was lip-reading (Ingold 2000: 281). And so, in their way, were the monks of medieval Europe, as they pored over their liturgical texts. For them, too, otherwise distant voices were not *represented* for the reader on the written page, but were rather brought into his *presence*, so that he could engage with them directly. They would not have been in the

least surprised by Sangama's insistence that the page of writing speaks, or by the idea that reading is a matter of listening to what the voices of the pages have to say. The interchangeability of visual and aural perception, which allows for the instant conversion of writing into song, was as central to the monastic practice of medieval monks as to the practice of Amazonian shamans. Moving his mouth and lips as his eyes followed the letters, Sangama ruminated on the text just as would a medieval monk or, for that matter, the traditional Japanese musician performing his *shōga*.

The similarities, however, should not be exaggerated. Monks were not shamans. For them the surface of the page was a landscape or country around which they could roam, picking up the stories of its inhabitants. For the shaman, to the contrary, the surface of the page is a face from which sound pours forth as it does in speech or song. The important conclusion to be drawn from the comparison is that it is in the nature of the *surfaces*, rather than in the nature of the lines themselves, that the crucial differences are to be found. It follows that any history of the line has to start with the relations between lines and surfaces. It is to these relations that I turn in the next chapter.