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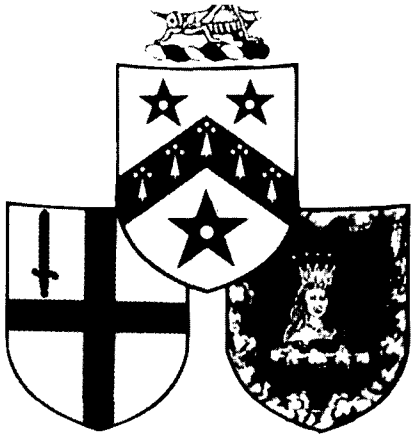

MUSIC AND THE INTELLECT

A series of lectures by

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GRESHAM COLLEGE

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THE LOST CHORD (The role of memory in music) (N.B. Underlinings are for spoken emphasis!)

1. Goldfish as listeners.

Goldfish have very bad memories. It seems that with every circuit of their bowl, the recurring view appears to them always new and fresh. Though never actually arriving anywhere, the hopefulness of their travel remains happily unimpaired. The pattern on the carpet, even the programmes on the television, fall upon Goldfish like a thunderclap. They must live in a state of perpetual astonishment.

When I was a student, I went to many a master-class, anxious to cull the great secret of performance. And out of them all, I remember learning only one thing. On the piano, you can blend the notes of an ascending melody together with the pedal, without spoiling the tune, because the ear instinctively picks out the top note as the important one. But you can't do the same thing with a melody that falls, because the pedal holds on the first note, and since that's the highest one, the ear sticks to it and doesn't bother with the rest of the tune. Artur Balsam taught me that at Aldeburgh in the July of 1976, and nobody else taught me - anything in particular. Master-classes are not really for teaching things, of course. Often, and especially when conducted by former sopranos, they are merely a vindictive blend of vicarious performance with vituperative superiority. More productive are those that simply pass the time pleasantly. And the best sorts of master-classes fall into the category of the laying-on of hands, the Apostolic Successions traced with such obsessive detail, right back to Liszt by the less-successful students. The master-class that most improved me as a performer was with Geoffrey Parsons, who listened to me play, said,'Yes, that's how it goes' - and went on to the next person.

When I started to give master-classes myself, I was determined that they should be, if not Apostolic, at least educational. And so I've developed a selection of cliches to discuss at the beginning of each class. That way, even if nothing memorable crops up during the actual playing bit, everyone has at least learnt something.

The most fruitful of these cliches is The Two Esses - Surprise or Satisfy. When we're performing, we want our listeners to react, either to Oooh - with Surprise - or to Aaah with Satisfaction. We don't want them just to sit like puddings, perhaps not even paying us the compliment of wishing we'd stop. Surprise or satisfy. Just in case there are any pedants listening, I should tell the story of the Professor of English found by his wife, in bed with the au pair girl. 'Oh, John', she said, 'I am surprised!' 'No, no, my dear,' replied the Professor testily. 'We are surprised. You - are amazed.'

Let me return to my goldfish. Perpetually astounded, as we have established , they must surely make ideal listeners. It must be so easy to Surprise a goldfish. How they would applaud if only they were allowed into concerts. And yet our concert-halls are not full of goldfish, our virtuosos do not as a matter of habit practice with a bowl-full on the piano, because not everything can be a surprise, in the same way that not everything can be funny. My younger son, who's five, has yet to apply this discovery to knock-knock jokes. 'Boo' is a

satisfactory caller - (no need to cry about it) - and 'Tuwhit-tu' is a good one if you like owls. The humour of 'Who's there?' - 'Cabbage' - however - one of Josiah's favourites - has so far eluded me

Surprise, like laughter, depends upon the reversal of expectation. And expectation in turn stems from Memory. The recollection of dozens of wet Bank Holidays intensifies the pleasure of a dry one. Goldfish never remember anything long enough to expect it, and so are incapable of surprise. And they are deficient in the other attribute of a good listener, for Satisfaction too can depend upon expectation, though upon its fulfilment rather than its denial. In a Mills and Boon, the final page's clasp - less and less chaste, I understand, as the years go by - between hero and heroine, brings a welcome glow to the reader's heart. The spire of Salisbury Cathedral is aesthetically more successful, with its elegant tapering up to nothing, than the truncated spire of Harlesden Congregational Church, which has an unexpectedly flat top at what ought to be the half-way level. By the time a goldfish's gaze had reached the Salisbury weathercock it would be unable to recall whether it was undergoing a breath-taking experience or merely enquiring as to the direction of the wind.

The key to a good deal of aesthetic enjoyment certainly seems to be Memory - or, to put it another way, Learning. Anything can be Art, provided we can convince ourselves, or be convinced, that it is Art. Bricks, dead sheep, abstract painting, serial music; familiarity will breed understanding. And this is undeniably true. Several friends of mine sang in Birtwistle's opera Gawain. After months of rehearsal they found beauties in the piece which simply do not strike the first-time listener. Advancing further down the same path, the saxophone player John Harle, who knows Birtwistle well, claims that his personal knowledge of the man enhances his enjoyment of the music. It is possible for invented languages to work, though against the success of Tolkien's Elvish, which apparently sustains a good deal of correspondence, if of a depressingly anorak-ish nature, I should like to set that story of Chesterton's that tells of a man who invents a new language carried on entirely in dance. Unfortunately, he decides to tell people about the new language only in the new language itself, and it takes the intervention of Father Brown to save him from the lunatic asylum. The only other occurrence I know of a language of Dancing Men is in another detective story. Not all inventions catch on in real life. Perhaps that's because there's more to real life than learning.

Certainly,the aroma of a splendid lunch arouses expectations which it will be a joy to satisfy, expectations which may not have been stirred the first time we smelt those spices, those caramelised onions, but now are etched into our very saliva. And yet eating can involve a simpler satisfaction, that of just not starving to death. Memory need not be involved - we can have no memory of starving to death. Learning is replaced by instinct.

In a musical context, the famous Hoffnung concerts are interesting here. The *Concerto Popolare* by Franz Reisenstein got its laugh at the beginning by having the orchestra play pom-pom-pom-Pom - CRASH, pom-pom-pom-Pom - CRASH; to be answered by the piano with DAH- diddle DAH- diddle dum diddle dum diddle dum diddle dum diddle dum diddle DAH, which caused huge mirth amongst those who had ever heard Piano

Concertos by both Tchaikovsky and Grieg. Alas, the march of progress inexorably reducing the number of such experts, the laughter became sporadic, and so a new Concerto was commissioned for the Hoffnung Concerts - the *Disconcerto* by Wilfred Josephs, a work ingenious in many ways, not least in its simultaneous combination of Beethoven's Third Piano Concerto with the rum-pum tiddle-iddle doodle doodah familiar to all from the circus ring. But it gains its initial laugh with altogether simpler means. The pianist sets off with the ta-Dah -- ta-da ta-da ta-da ta-da from the Schumann Concerto, but instead of ceasing round about the middle of the keyboard he carries on to the left until he falls off - literally falls off the stool, that is to say, with a loud thump and to the immense peril of his left hand. But absolutely everybody laughs.

The joke in the first piece depends almost exclusively on Learning. There may be an element of primal incongruity between the keys of B flat and A, but experience shows that people who have never heard the Grieg and Tchaikovsky Concertos are not very sensitive to it. At any rate, it doesn't make them laugh. The joke in the second piece is less easily assigned. Do people laugh because they have learned that concert-pianists wearing white-tie and tails do not usually fall off stools? Or is falling off a stool intrinsically funny? A.A.Milne, the creator of Winnie-the-Pooh and thereby a whole school of philosophy, wrote an essay on this question, though his specific starting-point was hats blowing off.

There's a song about someone's hat blowing off. Not just any old song, either, a song by Schubert - and not just any old song by Schubert, a song from his immensely serious cycle Winterreise. Learn something new every day.

MUSIC

'My hat flew from my head. I didn't go back for it.' Now, the piano there conjures up the storm for me - I can almost feel the rain on my face. But is that because Schubert has 'instinctively' come up with a successful bit of meteorological onomatopoeia? Or is it because I have 'learned' the song and its story over many years? Is it so very different from the sort of thing you get as the Red Indian Chief approaches Buster Keaton bound and gagged at the Totem Pole? How was it for you?

MUSIC AGAIN

2. Wilful sopranos and Burmese cocktails

It is notoriously difficult to speak about music. It can so often do without words. It is Music's glory that it can reach speakers of all languages and of none - as music therapy with the mentally handicapped and injured so successfully shows. As Mendelssohn said, it expresses emotions which are too precise for words.

We British, with our national genius for obfuscation, make a tricky job trickier by overloading the word itself. My own definition of Music is 'an activity by which Society defines itself', to which I add the rider 'it can be recognised by the noise it makes.' Most people think I don't really mean this, but I do, I do. Music and the sound of music are quite distinct. Let me marshal a few witnesses in support of this contention. Sir Thomas Beecham set up a clear distinction, and not merely for comic effect, in his dictum 'The English do not much care for Music, but they absolutely love the noise it makes.' Paul Valery, the French poet, gave a lecture in 1936 in which he claimed that Music is the movement of the muscles and limbs that produce the sound, and not the sound itself. He was engaged in demonstrating the fundamental importance of dancing, and he didn't expect to be believed either. He too warned his listeners that he really did mean it. Finally, Evelyn Glennie rather shakes the link between Music and conventional hearing.

It would be one thing if we extended the word 'Music' just to include the sound. These days it covers bits of plastic , if the common understanding of 'Music-Shop' is anything to go by. And there is a long history in Britain of using the word to describe pieces of paper with notes printed on. Other nations have avoided this. Germans have Partituren, the French have Partitions, Americans have Scores. Of course, we have Scores too, but with us it's a technical word applied to orchestral music. British pianists pencil their fingerings, not onto their score, but onto their music. I can't imagine why we display yet one more insular idiosyncracy in this regard, unless it's the result of a Puritan backlash against an earlier British term for written-out music, *pricksong.*

British words for the lengths of notes are quaintly distinctive, too. Americans and Germans take the simplest note to write, an unadorned oval, and call it a *whole-note.* This is the longest note in common usage, so they describe the others as fractions of the *whole-note - half-note, quarter-note* and so on. The French, stronger perhaps on Painting than on such impeccable but unimaginative logic, name the notes after their appearance. An empty oval is a *white*, and an ordinary filled-in note-head is a *black.* And a note whose stem has a hook is -well, a *hook* - a *croche.*

Turn now to a riot of mangled history, unreason and misunderstanding. Our memories are long in Britain. We remember shillings and acres. We remember, too, that a thousand years ago there were two sorts of notes, long ones and short ones, called in Latin *longa* and *breve.* We remember a daring innovation, a still shorter note, half the length of a breve, which was called a *semibreve.* This was written as an unadorned oval. The passage of time may have left this as the longest note in current use, but it still looks like half a short one to us, and so by God, it's a semibreve. That initial division rather denies us further possibilities of the fractional system. We had to look elsewhere for other names. The French *croche* rather appealed to us, so we anglicized it into *crotchet.* With our usual cavalier disregard for what foreigners actually mean by any

of their extraordinary mouthings, we applied this word to the note without a hook. Then we conjured up the word *minim*, and finally excelled ourselves with a fine descriptive word for as rapid a note as our minds could encompass, *quaver*. But to our collective amazement, people - foreign people - began to imagine notes even faster than quavers. We cogitated. Clearly, the system of fractional division had advantages. Perhaps we should apply it henceforth to generate new names for these new note-lengths. But how to maintain our distinctive peculiarity? Our brows cleared as we recalled the *semibreve*. Shorter notes could be *semiquavers*. And still shorter ones *demisemiquavers*. And shorter yet, *hemidemisemiquavers*. Honour was satisfied. We had adopted the American system, but the Americans would not be able to tell.

For all our quaintness, there is on occasion something to be said for our antique usages. In the days when you ploughed with an ox, it was useful to know that the Hundred-Acre Field would take five men twenty days, or fifty men two days; or indeed that one bloke on his own would miss the sowing season altogether. And those measures to base twelve - inches in a foot and pence in a shilling - were jolly handy if you wanted to share things out between three, four or six friends, rather than just two or five of you.

In the same way, there's one item of British musical usage that repays investigation. A particular musical formula ends most bits of music, often called a *Full Close*. (Music) In Britain we call it, with naive admiration, the *perfect cadence*. In the days when I taught harmony at the Royal Academy of Music, I used this as the basis of all my lessons. 'The perfect cadence', I would declare, 'is so called because it's pretty damn good.' And we would discover why it was so good, learning in the process the basic principles of harmonic progression, and not just of Full Closes.

I would play a bog-standard harmony-exercise perfect cadence in four parts - that is, four notes in each chord, just as if it were being sung by a church choir. (Music) First lesson from the bass. He falls with a splendid almost inebriated inevitability, (sing) not just as if he usually does, but as if he were foreordained to. We seem to appreciate it instinctively, and not from learning. In fact, if you take any note and bang it out long enough, it demands a resolution in the same way as the bass of a perfect cadence - descending through the interval of a fifth, to be technical.(Music) A different note just wouldn't do, though it might be handy if a composer wished to Surprise his audience into a more wary attentiveness. (Music) This natural tendency of pitched sound seems to spring from the arithmetic of acoustics; the sort of simple ratios that Pythagoras discovered were at the basis of music.

Second lesson from the soprano. You must let her do exactly as she pleases. If she sings, like Julie Andrews, an upward scale, she cannot stop at a drink with jam and bread. (Music) That note demands a resolution. This demand is not so much of acoustic right, like the bass's progression, as of context. But it still derives from instinct rather than custom. We put a landing at the top of a flight of stairs for better reason than mere habit.

Third lesson from the alto, reinforced by the tenor. Just as certain government departments operate on a 'need to know' basis, these notes between the bass and the soprano, inside the harmony as it were, observe the 'need to move' principle. If the note you're singing in the first chord will also do perfectly well in the second, then stick with it, as the tenor does here.(Music) If you find that your note has to change, as the alto does, then move as little as possible to the nearest note that will fit. (Music)

Now, although these principles are derived from good old-fashioned chords such as people used to write when tunes were respectable, you will find that they apply to other sorts of harmony. The lush chords of jazz musicians, the unexpected combinations of Stravinsky or Britten, all demonstrate that smooth progression - a better word might be Satisfaction- still depends on acoustic inevitability. Of course, a composer might flout the principles if his aim were momentarily to surprise rather than to satisfy. But in general the Perfect Cadence singles out some musical effects that we don't need to learn, just as in general we don't need to learn not to starve to death. They are basic truths, not invented conventions.

One of the most fruitful methods of finding new insights and experiences is to take what appear to be basic truths and show that they <u>are</u> in fact invented conventions. Impressionism broke down the apparently realistic coloured areas of academic painting into something more fundamental. Sixties satirists found that the respect afforded to the powerful was a dispensible convention. We may wonder now whether they were right.

In music, it was accepted for many centuries that two notes next to each other, when played together, made a discord, and one of them would have to move. In general, composers made the lower one fall away, though the sixteenth-century Italian composer Frescobaldi wrote a piece in which the upper note kept rising. Composers at the end of the nineteenth century rediscovered this effect as well - it made them feel very forceful and thrusting. But then all of a sudden, along comes a Frenchman called Achilles, saying,'Well, I don't think either of them need give way to the other. Why is it a discord? I think it sounds nice.' Achilles's other names were Claude and Debussy, and over the years he's persuaded most people that he was right. But notice, he has not in the process spoilt our enjoyment of music written in the belief that two notes next to each other <u>do</u> make a discord. We accept this, no longer as an acoustic fact, but as a workable and interesting convention. That must mean that we <u>learn</u> to appreciate the effect of a resolving discord, which conjures up the disconcerting fact that for someone unused to harmony, the initial effect of a Choral Mass by Palestrina and a complex orchestral piece by, say, Messiaen, would be exactly the same.

I remember Miles Kington telling me about an evening he spent in a cocktail bar in Burma. There was, as in most cocktail bars, a piano, with a pianist tinkling away soothingly. But Miles observed that there was something strange about the music. Although the pianist was playing lots of notes, with all ten fingers, there was never more than one note sounding at a time. He asked the pianist about this, and he replied,'Oh no, because this is Burma, and we haven't invented harmony yet.' So if you were from Burma, this.. would sound exactly like this.....
MUSIC

3. Synchronized Swimming and Ink Blots.

I was never much of a one for sport. A former Music Officer for the Arts Council listed his recreation in *Who's Who?* as horizontal jogging, and I used to think that much the same phrase would describe my sporting involvement, until I discovered from his girlfriend that it had nothing to do with slumping in front of a television set. Mind you, there was a time when my jogging was one of the sights of London. I was living in Covent Garden at just the period that people other than real runners began to venture out onto the dawn-kissed streets, and my morning jog was round Trafalgar Square and into St. James's Park. The first morning I did it, there happened to be a coach-load of Japanese sightseers taking photographs of the Lions. The second morning I did it, there were two coach-loads flagging down the crazy Englishman to pose in his ample running -shorts, and by the time we reached the second week, I was a traffic hazard. My exhausted frame was unable to sustain the exercise any longer though, so I cannot tell what may have been the outcome. Perhaps for a few days hopeful tourists lurked for me, resigning themselves in the end to the more traditional - if more risky - pleasure of having a pigeon stand on their heads. Meanwhile, I abandoned sport for good.

So, regrettably enough, the amazing popularity of Synchronised Swimming crept up on me all unawares. I vividly recall my amazement on first seeing it - I remember trying to adjust the television, and then my spectacles, in the attempt to reduce the pointless superfluity of it. But longer reflection has shown me that Synchronised Swimming's ostentatious duality speaks to the very depths of our nature, and tells us a lot about Sonata Form.

Consider a leaky fountain pen. Suppose that it deposits a blot on your sheet of paper. That would be unfortunate. Suppose it goes on to deposit a second blot. That would be disastrous, unless the second blot were exactly the same shape as the first. Then a disaster would be transformed into a pattern. The repetition of what would otherwise be meaninglessly random charms us with its intentionality. There must be a reason for it - it happens twice. Imagine the new meaning life would have if you won the Lottery two weeks running. And look how a dull swimming routine gains glamour the moment two people perform it at once.

It may be that visual patterns are associated with less than the highest reaches of Art - wallpaper and dresses - but that's because painting can aspire to the representation of objects. Words are more appreciated for their meanings than for their patterns, despite the best efforts of the young Edith Sitwell. Pattern in the real world is not very obvious, and yet how we long for the order and meaning of it. Therein lies the appeal of music, for there we can construct a pattern that does not fly in the face of our everyday experience, but whose harmony can overflow into the rough corners of life itself. There too lies the appeal of Science, and the reason for the supposed link between Music and Maths. Both Art and Science seek to find meaning in existence. Writers and painters are realists struggling with the actual business of living. Scientists and musicians are control-freaks looking for a way behind the mirror of reality.

It's extraordinarily difficult to find a piece of music that does not exhibit some repetition. If you do, it usually sounds inept. It takes all Henry Purcell's skill to make the second half of this little piece seem to belong to the first half.

MUSIC Musick's Handmaid No.2 [Lesson]

The fact that it's all in C major helps it stick together, and of course each half has repetitions within it. But whenever I play it, I get a little thrill of surprise when I get to the second half. This surprise is the whole point of it in Purcell's hands, of course. Like a master story-teller, he does what we don't expect. Usually when people do that, we lose the thread of their story.

You can make an interesting experiment with the Beatles' songs *Yesterday* and *Eleanor Rigby.* Each begins with a little exclamation which gives rise to a longer answering phrase. The songs are similar in mood, yet what happens if you preface the second phrase with the wrong exclamation? 'Yesterday' - 'picks up the rice in the church where a wedding has been' may be only mildly puzzling, but 'Eleanor Rigby' - 'all my troubles seemed so far away' is tautologous nonsense. (I refer to melodic rather than grammatical syntax, of course.) You realise straight away that the rightness of the second phrase depends upon the echo or transformation of some element of the opening. The chiming of 'Yesterday' with 'far away' is enhanced by rhyme. The other song is more 'constructed', with the rhythm on 'Eleanor' copied by 'picks up the' , and then transformed in 'rice in the' and 'church where a' by means of the lurching syncopation of 'Rigby.' This is not so much an attempt to get into Pseuds' Corner as a genuine explanation of why these are such fantastic melodies. Not all tunes have the personality to make the point. It's quite a good test of a couple of melodies, to see if swapping the phrases spoils them.

The satisfaction of verse and chorus forms comes from the regular recurrence of the refrain. Mozart's *Rondo alla Turca* is much more fun in its full version than it would be if he'd only played the tune once.

MUSIC Mozart Rondo all Turca (brief)

Leaves you wanting more. But more fundamental, and more thought-provoking, are the minute repetitions of Debussy. His first Prelude begins like this. (Music) At first blush,not sounds that you would imagine could be puzzling or unintelligible. What happens? The bar is immediately repeated, and then the music does something else. (Music) If I hadn't drawn your attention to it, you may not even have noticed that repetition, it seems to make so much sense. And there's the wonder of it. When we hear the bar on its own, we foresee no problem. When we hear it twice, followed by the rest of the music, everything's fine. But if I play it just once, and then carry on, the meaning of that first bar is obscure. (Music). The same point can be made even more clearly if I play *The Girl with the slightly receding Flaxen Hair.* (Music) How much more beautiful she was in her youth. (Music)

Repetition makes its own sense, in every style of music. Sometimes exact repetition. Here's the opening of JC Bach's E major Sonata. (Music) And here it is in the more economical version. (Music) Sometimes repetition of just one element, perhaps the rhythm. Imagine Beethoven's Fifth Symphony with only one knock on the Door of Fate. (Music)

The naturally suspicious will have observed that in these examples of small repetitions I have played the inferior version first, only where the original is well-known - *La fille aux cheveux de lin* and Beethoven 5. They may be thinking that the only reason the repetition sounds necessary is that we have learned that it should be there; that if I had played JC Bach's Sonata in the economical-with-the-music version first, no-one would have noticed anything wrong with it. (Music)

Well, there's nothing wrong with a Synchronized Swimming routine performed by only one person, particularly if you don't know that it's a Synchronized Swimming routine. It's just pretty meaningless. Now, that doesn't matter for swimming - the Meaning of Swimming is too deep a question, for me at any rate. But in music it does matter. Music is supposed to have meaning, and pattern-making is the clearest way that composers can give it meaning. If we're listening to music in such a way that we can enjoy either version of the JC Bach equally, then we're missing a lot. In fact, we all enjoy repetition in Music. After all, darling, they're playing our tune.

DAVID OWEN NORRIS

4. The Absent-minded Monk

[Notation; a mnemonic device grown to monstrous proportions and taking over; cf. WPs and Political Parties. Classical music IS notated music; by definition therefore not reliant on ordinary memory.]

We've got hypocrisy down to a fine art in England. We can even be hypocritical about being hypocritical. There is a vociferous school of talk which holds that we are the only people in the world to have a class system. As Shaw put it with splendid Irish detachment 'An Englishman has only to open his mouth for some other Englishman to despise him.' Now, while it might well be worth getting hot under the collar when members of certain classes conspire together to deny opportunity to members of other classes - a process that can operate in any direction - what people convince themselves is wrong ,is simply to display an interest in someone's origins. This interest, certainly, is notoriously displayed by one strand of British Society - 'Oh, you must be one of the Sussex Cobdens whose grandmother the Earl's daughter married the Air Vice Marshall.' But the same interest, displayed by other strands in the rich social tapestry, differs only in manner, not in intensity. And the frequent occurrence of the word 'begat' in the Bible betrays an early origin for an obsession with early origins. Today's genealogists are the scientists tracing the family tree of the Selfish Gene, the history of the first three minutes. The quest for origin is basic to mankind.

I was talking last week about natural properties of pitched sounds, as opposed to invented properties - agreed conventions. You may remember that the examples I took were the Perfect Cadence, which displays changeless truths; and the interval of the second, that is to say, two notes next to each other, which during the Age of Faith always had to resolve, but after the intervention of Debussy found it didn't need to after all. I pointed out that Debussy's heresy had not spoiled our appreciation of music written under a different belief system. Likewise, when we turn from the Big Bang and all those objective scientists to the Creation Myths of South American native Indians, we need not let modern ideas of Truth stand in the way of our appreciation.

Certain tribes in South America had Creation Myths of immense length and variety. To pay them due homage, the genealogists and bards of the tribes cast them as songs. The more songs a man knew, the more important he became. Now, since this was an illiterate society, this meant that the man with the best memory ended up as the Chief. Darwinians may rejoice to think that memory was probably an adaptive characteristic in early Amazonia - those piranha gave my toes a nasty suck, I lost a lot of weight last time I met an anaconda - and so this early example of apparent cultural distortion is indeed strictly evolutionary.

How very different it was in the sheltered environment of an eighth century monastery in Western Europe. Here too, the monks were engaged in singing lengthy accounts of their origins, but the ingenuity of their social organisation denied them the evolutionary sanction of piranha or anaconda. What happened? Why, their memories got worse and worse.

At first they were able to manage by choosing the monk with the best memory available. Desperately racking his brains for how the tune went next, he would face the band of amnesiac singers, waving his arms about in an attempt to show them whether the tune went up or down, or stayed on the same note. They got by at first. But in the end it got too much even for the clever waving monks, their minds fatally softened by that

invention of the Devil, writing. Perhaps if they had had to rely on their memories for the words as well as the music, all would have been well. But there the words were, written down in front of them. Important words, too, rendered important by the simple act of writing, as the modern use of the word Scriptures makes clear. How much easier it would be, thought the waving monks, to put signs by the words that would show us which way to wave. So musical notation was born, not as a representation of the sound, but as a representation of a representation.

Technological innovation, as Dr. Frankenstein discovered, has a way of taking on a life of its own, of finding its own justification. Unforeseen bonuses come our way very frequently. How much more generally useful it is that bacon need no longer stick to frying pans than that a few people should reach the Moon. How difficult it would be to key in Roman numerals on a pocket calculator, though I suppose there may be a way of solving simultaneous equations with a piece of stone and a chisel. Fascinating to speculate that the Romans never reached the Moon simply because the papyrus reed was not so interesting to Anthony as was Cleopatra.

But while these functional benefits are welcome in functional contexts like eating, sleeping and getting about the world in order to kill people, we must be careful when they are applied to less purely functional activities like Music. A good example of what can go wrong is provided by that King of Instruments, the Organ. More machine-like than many instruments, it seemed to the nineteenth century that it could particularly benefit from the Industrial Revolution. It was no longer necessary to have an indigent drunkard to pump the bellows, with the inevitable restraint on wind pressure that that involved. Vast quantities of wind could be provided by machinery; so much that it could be used not only to blow through the pipes, but to effect the connection between the organist's fingers and the valves at the feet of the pipes. Miles of lead tubing replaced the light and naturally springy bits of wood, or trackers, that had given the organist such a delicate control over the speed at which the valve opened, and consequently over the gentleness with which the pipe could be coaxed into speech. And even the poetic symmetry of pneumatic action's reliance on the Soul of the Sound, the Wind, vanished once it was discovered that electric wires were cheaper than lead tubing - and didn't spring leaks. The great benefit of either pneumatic or electric action, as far as vicars and architects were concerned, was that they could put the sound-producing bit of the organ in some remote corner, sometimes practically in an adjoining building, while keeping a close eye on the lucklessly detached organist.

Meanwhile, organ builders were busy playing with the possibilities of blowing huge quantities of air through pipes. First and foremost, they could be LOUDER! (Loudness has always been a seductive yet terrible Will o'the Wisp for musicians.) Louder and louder they got, till the pipes themselves had to change to support the awful noise they were making. Peculiar devices like the Leathered Diapason and the Bearded Gamba gave organ stop-lists a zoological tilt. The beautiful, delicate, subtle instruments of the eighteenth century were forgotten by the Mighty Wurlitzer.

Give technology its due, it was a further technological advance that finally stopped the organ world in its trackers. Electronic organs came along, and they could make all the horrible noises real organs could, much more cheaply. The highly-developed pipe-organs had no advantage to offer. They didn't even look as nice as the Formica box sported by the electronic upstart. But what did look absolutely lovely were the old eighteenth-century organs, where the shape depended upon the natural laws of sound, as the pipes got longer and stouter for the low notes, and shorter and slimmer for the high notes. Organs whose size was constrained by the springiness of the wooden trackers, and indeed by the height of trees. How ugly things had become when everything was possible. How beautiful things had been when there had been limits, discipline, rules. And, the realisation grew, how good they had sounded. The pipe-organ rediscovered the reason for its existence, and is no longer an endangered species; provided it bears in mind the fable of the Frog and the Ox. (7'20)

When writing came along it had such manifest advantages that anyone quibbling about it got short shrift. The spouters of epic and lyric poetry no longer had to develop their memories. They could just write the stuff down. This had two disadvantages. Anyone who has worked in radio will tell you that a script and an essay are very different things; a fact that may explain why this lecture will read so oddly when you take it home. In a script you use writing to make sure you cover all the things you want to cover in an intelligible way. But you try to make it sound like natural speech. At its simplest this means writing 'I've' instead of 'I have'. But it also means writing 'you', as I did in those two sentences, rather than 'one'. All this labour's wasted if you then read a script as if it were an essay. 'It might be instructive to compare the two methods.' ' It'd be good to swap about from one to the other.' I'd end up sounding like Bertie Wooster and Jeeves imitating each other. You sometimes hear actors on the radio who haven't quite acquired the knack. I've just been listening to an excruciating example of a youngish girl starring in a dramatisation of an Alison Uttley story, where her dogged recital of her part - you could almost hear her finger rubbing along under the lines - entirely aborted the efforts of her more experienced colleagues.

I said there were two disadvantages about writing down poetry, but before I get to the second I must mention a sub-species of the one we've been discussing, the difference between a script and an essay. Even when a script has been well- composed, a convincing delivery will depend upon familiarity - such familiarity as to provoke involuntary memorisation. This is at the bottom of all the 'I'm sorry, I'll read that again' jokes, and was Demon - I'm sorry, I'll read that again - was demonstrated in the career of the great comedian, Tony Hancock. He started on the radio; and on the radio, memorisation of lines, like dancing, cuts little ice. So he became a master of script-reading, always rehearsed, always convincing. When he transferred to television, he had to learn his part. This he found very difficult, but the effort paid off, it is generally agreed, in benefits of comic timing and mobility of expression and gesture. But at some stage into his TV career, illness prevented him from learning his part one week. To overcome the problem, he was introduced to a comparatively recent invention, the cue-card, tellingly known as the idiot-board. This was an early version of the now almost universal autocue. Its development is instructive. At one time it was a secret compact between speaker and camera, as it remains with newsreaders - indeed, newsreaders still fumble occasionally with cosmetic sheets of paper, just to remind us of how authoritative they are. Just as Dennis

Norden's clipboard seems full of the promise of funny out-take after funny out-take, though in fact he's given it to hold simply because otherwise he doesn't know what to do with his hands. People who occasionally gave speeches on the television, but much more frequently spoke right out in the public view, as it were, found themselves regretting the easy sense of assurance the auto-cue gave them. How could they appear to be speaking off-the-cuff at a public gathering - a Presidential Convention, say - without the auto-cue's screen intervening between them and their listeners? The answer was found in the celebrated Victorian illusions of Maskelyne and Devant, who used an angled sheet of glass, lit in such a way that the reflection on it could only be seen from one side, to create all sorts of ghostly effects - though possible none so ghostly as President Reagan pretending that he knew Jefferson. In Hancock's day, however, the idiot-board was precisely that - a board on which the words were chalked in large letters. This meant that Hancock's gaze was always fixed on the middle distance, and however balletic the person holding up the board, there were inevitably occasions when he would be addressing someone over his shoulder and out of the corner of his eye. Interestingly enough, he never seemed to recapture his earlier expertise in reading scripts. This may have been partly due to the vastly increased preoccupations of the television actor as opposed to his casually dressed and unshaven radio colleague. But it may also reflect the possibility of being spoilt by an experience of technological advance, like those literate monks with the deteriorating memories.

The second disadvantage about writing words down was that any subsequent changes to them were mistakes. Before, changes had been cultural development. The loss was easily accommodated at the time, for cultural development had been so slow as to be unnoticeable; and in any case, it's quite a good idea to preserve different stages in the growth of ideas. But writing can stifle further developments that could be useful. This is the chief argument against a written Constitution, of course, and though I may favour one side of that question in the circumstances of my own country, I cannot ignore the disastrous succour given to the Gun Lobby by the most famous written constitution in the world.

So far, these advantages of writing could perhaps have been foreseen. But there were spin-offs, non-stick frying-pans to the space-travel of memory-saving. Complicated chains of reasoning became possible. Even the most accomplished of the South American tribesmen had not got very far with reasoning, possibly because it required constant reference back and forth between propositions, and their memory was linear and unidirectional - as music might be imagined to be, incidentally. Societies at a half-way stage between illiteracy and literacy exhibited fascinating devices to develop logical arguments. A favourite of Roman rhetoricians was to familiarise themselves with a large building, a temple or palace with various rooms, niches, cubby-holes, pillars, and so on. They would then put each of the facts or propositions in their argument in a particular place, so that the reconstruction of their chain of thought was simply the result of a mental perambulation. Once you'd got used to writing it was much easier, particularly when the technology of erasure was mastered. Cesar Franck appears a much more decisive composer than Beethoven, for example, simply because he did his sketches in pencil and rubbed-out like mad. Beethoven crossed out and scribbled over in pen for all to see. Elgar reverted to the Roman system. He knew what the individual bits of his music would be like, but he had a dickens of a job deciding which order they should come in. And so he

would pin his ideas, all on different sheets, on the walls of his study, and then walk round humming, changing the order in which he had pinned them up, until he was satisfied.

This property of writing explains the extraordinary popularity of the detective story, the epitome of the reasoning processes made possible by writing. Most readers will not actually refer back to check up on the clues, though Monsignor Ronald Knox in his stories gives page references when his Loss Adjuster starts to explain about the gas taps or the ice-house. But the readers will be comfortably aware of a process made possible by the medium. Serious reviewers usually look down their noses at detective stories, preferring to consider abstract values and properties that just happen to use writing for their expression - returning, in part, to the original mnemonic function of writing, though even this has been enhanced - not many of us would care to memorise *War and Peace*.

When reasoning got even more complicated, in the work of Whitehead and Russell, mere writing sufficed no longer, and those philosophers invented a logical notation to express the complexity of their thought. Or was it to create the complexity of their thought? It is, I believe, a venerable philosophical conundrum much debated in the undergraduate coffee-houses of Oxford, whether thought is an abstract thing seeking expression by whatever means come to hand; or instead the product of the means of expression itself. That is to say, there are no thoughts too deep for words, since thoughts can only be formulated in words. Obviously a musician will have a short answer to this narrow view of the problem - I have already quoted Mendelssohn on music expressing thoughts too precise for words - but the classical musician, accustomed to dealing with notation, may well share the opinion that thoughts cannot be divorced from their medium. (14'30)

For it is my contention that just as the writing-down of words led inexorably to the detective story, where the narrative is not self-sufficient, but exists to carry a surprising chain of reasoning, so the writing-down of music has led to Sonata Form. That what we call Classical Music is in fact the peculiar product of notation and bears the same relationship to the great mass of music as the detective story does to literature. If, like me, you like detective stories and classical music this won't seem too much of a heresy. If musical notation had never been invented, we would still have pop songs and operas, we would still have melodies, we would have complicated rhythms, as African and Indian musics show - note in passing how African rhythms are produced by the interaction of several people doing things which are in themselves simple, and how Notation puts all that interaction sterilely into the hands of One. We might even have that distinguishing badge of Western music, harmony. We might speculate that those un-notated operas would make much more sense than the ones we know, that opera's comical obsession with disguise and death is an outcome of notation running parallel to the similar obsessions of the detective story, which at its most typical is a murder mystery with suspects - disguised murderers. But we wouldn't have the self-referential music that fills our concert-halls - or, where the music is so complex as to rival Russell and Whitehead, empties our concert-halls.

Let me turn to a couple of paradoxes. Word-writing coupled with universal literacy leads to the Book. Books are manifestly different from, say, bardic recitations of invented genealogies declaimed upon a windy hillside. Books can be a cosy, silent and solitary pursuit, carried out at the time-scale of the reader himself. We value this, as we show each time we express dissatisfaction with the television. All that television is doing is returning to the days before writing. Yet in music, we passionately believe that private perusal is not the ultimate end of all this notated music. We call that Practice, and subordinate it to the final act of performance. This is why literacy in music has remained far from universal. The dilemma of 'Modern Music' can be seen to have arisen from composers forgetting the delicate con-trick they were playing. Once, composers could manipulate their notation to produce a bookish music not really for reading aloud - the Pavanes and Galliards of William Byrd, for instance - and at the same time produce a public music whose reliance on notation was not obvious. Think of Mozart's remarks about the Piano Concertos he wrote in such a way as to please the uninformed listener, while hiding in them things that would also please only the knowledgeable. Composers until recently seemed to vie with each other to produce a music so reliant on notation and its dependent systems, whether aleatoric or over-determined, that it can only be compared to a public recitation of the Table of Elements, masquerading as Shakespeare.

The second paradox will shed some light on my hitherto rather bald contention that musical notation is alone responsible for Sonata Form. Those who would like more adduced than a mere analogy between Beethoven and Sir Arthur Conan Doyle may like to consider the improvisations of such composers as Bach and Mozart. Improvisation is at the heart of most music. Surely the fact that Bach could improvise fugues, and Mozart, sonatas, shows that such organised music does belong after all to a world free of crotchets and bar-lines. Well, as far as we know, no-one improvised fugues before fugues were invented, and notation had been around for a long time before anyone wrote a fugue down. The implication is that fugue is dependent upon the logical marshalling process made possible by writing. After all, Bach was very familiar with notation; he went blind because of too much reading of music by candle-light. If this familiarity was not a pre-requisite for improvising fugues, then the skill would be much more wide-spread. The same applies to Mozart, but here I can offer a personal insight. Mozart did most of his composing in his head, a trick that has led many to believe that he didn't really do any work at all. But just occasionally he had recourse to writing other than to record a finished process. There is an unfinished movement for string quintet, and the year I sat my degree at Oxford, the examiners decided that all candidates should finish what Mozart had left undone. It was an interesting question, but the outcome was not foreseen. It was like working doggedly through a chess problem when a Grand Master would say at a glance 'Checkmate in twelve moves.' Mozart had written down enough to resolve the problem he must have had considering this material in his head, and had stopped as soon as he had realised that a characteristic of his melody precluded proper development. This was the material we all had to develop, of course, so it was unsurprising that our answers did not come up to Mozart's standard. Neither would Mozart's have done.

Next week I shall use Mozart's improvisations as a jumping-off point to consider musical memory as is commonly understood, and that peculiar corner of it that is named Perfect Pitch.

5. Rubinstein's Nightmare

Jean-Pierre Rampal has spent his whole long life (apart from the bit when, like Fritz Kreisler, he thought he was going to be a doctor) being the greatest ornament of his flute-playing nation. His lapel sports that discreet red thread, his sleeve-notes are printed in Japanese, and he is revered as one of the greatest of twentieth-century musicians. Poulenc's Sonata, the goal of every orthodontically-challenged adolescent flautist, was written for Jean-Pierre, and the composer even gave him special interpretative hints, though of too scatological a nature to repeat here. In the thirty-five years or so of its existence, Rampal must have played that Sonata thousands and thousands of times. Yet still, when he gets to it in his recitals, he puts the copy up on his music-stand. He does not play from memory. And no-one really thinks this is odd.

There was a time, before the ongoing spasm of liturgical revision in the Church of England, when the Prayer-Book had been unchanged since 1662. The words of the Service were unalterable, even down to the possibly accidental duplication of the Lord's Prayer in Matins, and the now-rejected innovation of sticking the Gloria on at the end of the Communion Service - a quirk that made thousands of English music students think the publishers were at fault with all those Palestrina Masses being in the wrong order. Yet even during those three hundred years of stability, when vicars might have been expected to get the words off by heart, they always had The Book before them, not just for the Proper Preface for the Fourth Archangel from the Left as You Stand in the Row of Goats, or whatever it might be, but even for Lift Up Your Hearts. Few were the parishioners who saw anything odd in this reliance, and most of the ones who did went off to be Non-Conformists anyway.

The reason for this devotion to the printed word is not far to seek. As the Preface of 1549 put it, justifying the new book's Spartan simplicity, its lack of 'uncertain stories, and legends', its repudiation of 'responds, verses, [and] vain repetitions'; 'There was never anything by the wit of man so well devised, or so sure established, which in continuance of time hath not been corrupted.' The new licence of the vernacular, the new technology of printing and the increasing literacy it brought in its train, were harnessed by the Reformers to set the liturgy in cement. The wise words of the Preface of 1662, about 'keep[ing] the mean between the two extremes, of too much stiffness in refusing, and of too much easiness in admitting any variation' made little impression upon the conservative nature of democracy, and upon our belief, still unsullied by the *Sun*, that anything in print must be important, To this day, the distinctive stance of Anglican churchgoers is bowed head and hands together - reverent enough, but imposed by the needs of holding and reading the Book from which their eyes never budge. Surely some parson must have been tempted to enjoin his congregation to 'Lift Up their Eyes'!

Anglicans were early devotees of the Ur-text, as we might say in music, the copy that prints everything that the composer wrote, exactly as he wrote it, with no improvements creeping in through the preconceptions of the editor or the engraver, not even unwitting ones. And in passing we might notice that the Church of England is rather ahead of Classical Music in realising the chimerical nature of such an aspiration. Classical musicians find themselves in the position of the French Jehovah's Witness who once visited me in my flat on

the wrong side of Montmartre. I was so lonely that I invited him in. He was rather nonplussed at this, and didn't seem to know how to carry on. So I engaged him in theological argument for several hours, and eventually, to ram home some point I was making, I fetched my bible - the New English Bible, it was - and showed him some verse or another. He looked at it in amazement. 'Mais.. c'est en anglais,' he spluttered eventually. His whole theology was based on the fact that Jesus spoke French, and he shook the dust of my room, admittedly copious, from his feet, and left. I had some sympathy with him. I used to play the organ at the Eglise Suisse, and once you've got used to the fact that Jesus prefaces his every remark with 'Et alors', he's never quite the same again. You can almost see the shrug of the shoulder and the ash hanging off the Gauloise.

Its worth developing these parallels between Music and Liturgy just a little further. I have explained that Classical Music is a notated music, and certainly Anglicanism is a notated liturgy. I might be on shakier ground with the contention that the liturgy of the pre-Reformation church, in a language not understanded of the people, but fixed and unchanging, made the recent High-Church and Roman Catholic vogue for folk-song inevitable. But the link between charismatic liturgies and the improvised music of Jazz is one that goes deeper than the rattling of tambourines. I shall at this point desperately resist at least three red herrings - such things as the difficulty of 'modernising' Church Music, the necessity for divisions and categories, that sort of thing - and turn to a very strange matter indeed.

Classical musicians, as Rampal's dealings with the Poulenc Flute Sonata exemplify, play music that someone else has written, and which they do not wish to corrupt. Orchestras must invest heavily in music-stands. Brass-bands have invented special bolt-on clips, charmingly named 'lyres', to hold the music-part when marching. But the very type and model of the classical musician, the concert pianist, has to play from memory unless he can think of a damned good excuse. I remember I once had to play some early pieces by Benjamin Britten - so early that he had mis-spelt their title as *Five Walztes*, an error which Faber Music somewhat tweely carried over into the edition - and didn't have the time to learn them. Since their style is not at all what you might expect, either from a twelve-year old, or from Benjamin Britten, or even indeed from a twelve-year-old who actually was Benjamin Britten, I was able to escape my dilemma by telling the audience that I was playing from the copy because otherwise they might not believe me.

A later brush with memorisation was more serious. In my late twenties, I realised that the age limit for most international piano competitions was 30, so if I ever wanted to see what they were like, I'd better get on and enter one now. The next one available was Sydney, so in a spirit of detached enquiry I auditioned and was accepted. It came as something of a blow to realise that I would have to abandon my busy life long enough to work up the required repertoire. It was enormous, and it all had to be by heart. (A telling phrase, that, by heart, and one to which I must return.) I chose for my penultimate stage a very long difficult Sonata by Michael Tippett, and a very long difficult Sonata by Arnold Bax. And for the final stage, the Concerto Round, in addition to a little Mozart Concerto, I chose a very long difficult Concerto by Brahms. It quickly became apparent to me that I couldn't cram both Roundsfull into my head at once. If I chose to remember the Concertos, I would forget the round before. But if I forgot the round before, I wouldn't need to remember the

Concertos, because I'd be out of the Competition. Logic dictated that I memorise the Sonatas, and worry about the Concertos if I made it to the last six.

Obviously I wouldn't be telling you the story if I hadn't made it to the last six. I found myself with five days to learn about an hour and a half of the hard stuff, absolutely from scratch - I hadn't even heard either of them, nor even opened the copies to mark a fingering. I was so exercised by the daunting span of Brahms D minor Concerto that I had little thought to spare for the little Mozart F major. It was only in the performance, broadcast live to the whole of Australia, that I realised I hadn't prepared a cadenza. At the rehearsal the conductor had asked me how my cadenza finished, and I'd said 'Oh, diddle diddle diddledledledledle diddledee', because all Mozart cadenzas end like that. 'Fine', he said, and my worry about the Brahms ousted the cadenza from my mind until I heard the orchestra going 'Pum pumpa pum pumpa pum pumpa Pom' and realised that I was about to resurrect, single-handed and very unwillingly, the fine old practice of improvising the cadenza. My mind was blank except for one interesting musical fact. In that particular Concerto, Mozart is feeling very bright in terms of keys. From F major he continually goes to what we call the sharper keys of C and G - in the direction of the dominant rather than the sub-dominant. Even the slow movement, I seemed vaguely to recall - that was still ahead of me, of course - even the slow movement was in the dominant C rather than the customary sub-dominant, B flat. I determined that my cadenza should redress Mozart's partiality. I would modulate flatter and flatter. And I did, able to give my wild arpeggios and cascading scales thematic relevance only because Mozart's melodic impulse had been at a lowish ebb when he wrote this Concerto - the main tune goes 'f f-f f f c c c', which is not too tricky to work in from time to time. Flatter and flatter my fingers took me, working largely of their own volition (another phrase to which I must return) until I reached the terrifyingly and most unMozartianly remote key of C flat minor. My fingers didn't seem to know how to get any farther than that. They paused over the notes, and I glanced down to see if I could be of any help. Those notes - they seemed familiar somehow, now I came to look at them. Why, I believe I know a piece in C flat minor. Isn't it ...? And even as my mind made the enharmonic leap from C flat to B - same notes on the keyboard - I found that I was playing the *Badinerie* from Bach's Suite in B minor - the one that goes Ta tata ta tata ta tata ta. The judges were even more horrified than I was. Several of them walked out at that point.

All of which was not the best possible preparation for the Brahms, which was the very next day, but live television this time. At the rehearsal the piece divided itself into two categories. There were portions that I could remember but could not play. And there were portions that I could not remember. I spent the afternoon palely loitering in a park in between desperate appeals to the management to spare me the ordeal. 'Oh that wouldn't be fair to the others that entered and had memorised everything', they said. For there is a type of pianist, usually one with nothing better to do, whose whole activity is confined to piano competitions, and whose repertoire is invariably reliable - as well as reliably invariable. Just before I was physically thrust onto the platform I was looking for a fire-axe; for I thought that if I injured myself, then not even the hardest-nosed Competition PR person would make me go ahead. I was wrong, I now realise, for a freshly-severed foot on live nation-wide television would have been just the thing. One Guitar Competition, after all, gained enormous publicity after its winner, unable to deal with the pressure, cut off his little finger. The point is

academic, in any case, for the advanced sprinkler system at the Sydney Opera House has made fire-axes a thing of the past.

But the mind is a mysterious thing. It had only been joking. When the chips were down, it remembered pretty well after all. When momentarily it blanked out in the slow movement and missed a bar out, the video-tape clearly preserves my confident assurance to the conductor: 'Don't worry about it - I'll stick another bar in.' Which I did, prompting a deputation from the orchestra after the show to award me their own special prize for the Most Improved between rehearsal and performance, while the critic of the Sydney Herald penned my favourite sentence ever: 'In the Brahms, Mr. Norris found himself in the position of one who grasps the hand of a friend while desperately trying to remember his name.'

Who was responsible for all this anguish? The short answer, it appears, is Clara Schumann, who was the first to give piano recitals from memory: even before Liszt bothered, though he was impressed enough by the public's reaction to adopt the idea. It may even have been memorisation that created the single-minded piano recital. Even in the 30s and 40s of this century, concerts were populous and varied affairs, where a harpist might alternate with a solo pianist, while both gave way for a singer with a different pianist, all of whom perhaps joined the audience to clap once the string quartet arrived. This, incidentally, is a type of concert that I am hoping to revive in a big project for the Quatercentenary of our College in 1997: a concert series that will start in London and travel to places like Oxford, Edinburgh and Cardiff; then further afield to New York, Montreal, Chicago, San Francisco, and so on. Just this week I'm having some meetings about possibilities in Vienna, and so on. More details in a year or so! The mixed concert is much more enjoyable than a solo recital, but one can imagine that once pianists had learnt to take themselves seriously to memorise their pieces, they probably wouldn't want to share with ordinary mortals. For there is an element of Tablets from the Top of the Mountain about memorisation.

Who is it that plays from memory? String soloists will usually do so in concertos, but not in pieces accompanied by piano. Wind players tend to use the copy in concertos as well. Many trumpet players play their Haydn Concerto from memory, but I have yet to play the Shostakovich Concerto for Piano and Trumpet, where the trumpet has a hugely prominent solo part, with a trumpeter who has memorised it. I play it from memory, mind you, but no-one has yet commented on the odd disparity. Orchestras do not in general play from memory, not even opera orchestras, who have the best chance to remember their limited and oft-repeated repertoire, but the least incentive to do so, since their achievement would be invisible in the pit. Piano accompanists do not in general memorise their parts. It would be ridiculous to bother to remember the ones that would be easy to remember, the oompah oompah type, and the ones where musical seriousness might just conceivably be enhanced by memorisation, like Brahms Sonatas, are too long and difficult. Besides, what would happen if the soloist had a memory slip? Would the accompanist know the piece well enough to jump? Or if he had a slip himself, that would spoil it for the soloist. Always assuming, of course, that the soloist is playing from memory himself, which he usually isn't. No, I'm glad to say that accompaniment memorisation has not caught on, possibly because good accompanists are busy, and have

a shrewd valuation of their time. I shall come to the wretched memorising conductors, and even string quartets, after we have explored some other corners.

Singers memorise operas, for reasons of dramatic verisimilitude, but they memorise songs, too; but never oratorios, possibly because the religious subject matter of most of them set the hands twitching for a hymn book. Why do they memorise songs? Most of them think it's so that the audience can see their eyes - very few singers will wear spectacles for the same reason - and be helped to an emotional understanding of the song even if they don't understand the words. Which just reminds us of how important it is that we should understand the words. But it's also because some songs are little operas, where the singer is a character - even three characters in the Erl-King - and it seems to singers, who are dramatic creatures at heart, that they can put it across better if they actually pretend to be the person. And just as Tosca would look odd with her score in one hand and her dagger in the other, so they think they can more convincingly be the worried father, the frightened child, and the slimy Erl-King if their arms are free to telegraph their emotions. It really does happen, as you will know if you saw my report on the last Cardiff Singer of the World Competition, which left me in such despair that I borrowed a stuffed dodo from the National Museum of Wales to make a subliminal point about the contestants. I've not been asked back this year.
MUSIC

Now, you'll notice that another character besides the three I've mentioned actually begins the song, with his question 'Who rides so late?' This character, the narrator, is a clever stroke on Goethe's part; much more compelling to have a real person telling the story, rather than the authorial voice .. 'A father and his son are ridding at night...' But when we get to the drama itself, where is the narrator? Hovering in the CNN helicopter, careful not to get involved? Is he doing the voices, or should the singer try to transform himself into the very people?

Hear how impersonal by contrast Mozart's Goethe setting is. Who's telling us the story? Doesn't matter.
MUSIC

There are other songs where the line between narrative and description can be blurred. Schubert's Wanderer's Night Song is presumably sung by the Wanderer, but he does not obtrude his personality on us.
MUSIC

Wolf's Auf einer Wanderung, in contrast, is a little opera for its traveller to skip along to, although we don't know who he is, even when he refers to himself just at the end.
MUSIC

And my favourite song for narrative confusion is Ein Jungling liebt ein Madchen, from Schumann's *Dichterliebe*. Heine is typically playing more complex tricks than Goethe in Erl-King. A straight-forward narrative poem bogs itself down in a thicket of undifferentiated personalities, cunningly drawing attention to the problem of identity. And at the end the singer tears off his false whiskers. It was him all the time.

Incidentally, Schumann really does miss the point this time - some of his nullifications of Heine's irony are certainly because he was playing his own double bluff, as in the very beautiful music early in the cycle that follows the words 'when you say "I love you" then I must weep bitterly.' But here I think Schumann simply lost it. See if you can count the number of people involved, and then see if you can hear a reason for the existence of the superfluous postlude.
MUSIC

The dramatic necessity for memorisation is not so compelling as many singers assume. They might do well to study the picture of Schubert accompanying the great quasi-retired singer who took him up, Vogler. They're both sitting on the same stool, with Schubert's manuscript on the music-desk. Vogler is turning the pages.

I've gone into the dynamics of song-memorisation in some detail, partly because it is my professional concern every August, when I give my singing course in Chicago, but also because it sheds some light on concert pianist memorisation. Just as singers try to make us think they <u>are</u> the love-sick poet or the drunkard, so the pianist is trying to make us think he's the <u>composer</u>.

I have spoken before of the strangely arrogant humility of the performer who wishes to subject himself entirely to the composer, without realising that his idea of the composer is precisely that - his own creation, as it must always be, even if the composer is alive and kicking, once we understand that classical music is a knotted music, where the composer is properly denied the ultimate realisation of his labour unless he transforms himself into a different animal, the performer. Piano memorisation can be seen to be a step on this journey, a part of the peculiarly nineteenth-century corruption where the composer was elevated to a God-like remoteness as lonely genius, and where the solo pianist, the only performer able to be similarly lonely in public, was his earthly representation.

I daresay it sounds as if I'm looking for an argument that will get me out of ever having to repeat my Sydney problem. But, once the idea had arrived of the solo pianist visibly making up the music as he went along, music was written for it that depended on it. Many Romantic piano concertos look very odd if the pianist is seen to be following instructions - he is so clearly in charge. Modern composers have played with the convention. Jonathan Lloyd has written a piece called WA WA Mozart, which pictures Mozart sitting at his piano, conjuring up orchestral voices in his head, only to dismiss them at the end. It's a piece that would lose all its point if the soloist didn't memorise it.
MUSIC

Incidentally, Joe wrote that with me in mind, but I've never got round to playing it yet. So I'm putting it into my Festival in Cardiff this autumn.

How do I feel about memorising music? First, I feel I must do it, because otherwise the critics will comment on it adversely - this happens more in America than here. Clearly, this is a very bad reason for memorising.

Second, I feel I must do it, because otherwise people will think that I can't, and therefore that I'm not very musical. This is not a good reason either, but it holds more water than the first, since what the audience thinks is important, and I cannot single-handed turn all my listeners into the knowledgeable unprejudiced ideal beings I might like them to be. Thirdly, and more positively, I feel I must memorise because of the freedom I feel away from the shackles of the notation; a feeling that really does affect how I play. Fourthly, I memorise because some histrionic music demands it. And finally, I memorise because it's quite handy in hard music to be able to look at your hands from time to time.

Modern music is often very difficult to remember, because one's convenient mental shorthands don't work. You have to remember every note individually, rather than remembering a melody or a chord. The drawbacks are so great that there is a growing relaxation of the convention with regard to this sort of music. Certainly the only performance from memory I gave of Tippett's Third Sonata was not noticeably better than the many I've given with the copy. But I wish I was brave enough not to memorise Mozart Concertos.

Recording introduces another dimension, where the performer, like the opera orchestra, is invisible, and the costs of re-recording in case of memory slips are often thought to outweigh any interpretative gains. Here you sometimes runs into the difficulty that once you're used to playing a particular piece without holding your neck at a certain angle, it's very difficult to use the copy. I remember once going to enormous trouble to memorise a Concerto by Hindemith for a broadcast, and when I turned up at the rehearsal, Gunther Herbig absolutely refused to allow me to dispense with the copy.

For the moment I shall follow the 1662 Prayer Book's view on memorising. Let's not have too much stiffness in refusing, or too much easiness in admitting. Except that I would like to show a bit of stiffness towards memorising conductors, who have a job to be getting on with, not just showing off. Of course, some of the dramatic benefits of the memorising pianist also accrue to the conductor, but they really should be discouraged from any further self-dramatisation. And the same goes for string quartets, with bells on.

It might be argued that memorising goes some way to bridging the gap between the literate creation of classical music and its illiterate reception - the maintenance of music's public rhetorical aspect. Yet even here the nineteenth century was kidding itself, with its folksongs and its Nationalism and its back to nature. Perhaps you can enjoy Wordsworth's *Daffodils* if someone reads it out loud to you, but his *Intimations of Immortality* would become more difficult if you couldn't follow the words. Those clever bits of Mozart's Concertos for the amateur and the connoisseur - can you be a connoisseur if you can't read music? By how much does the vague realisation that a lot of people are singing a fairly pervasive melody at once, fall behind a literate appreciation of a fugue, I wonder?

This is not such a ridiculous question. It may really be necessary to read music in order to get the most out of notated music, even if you're only listening. Of course, a good deal of pleasure may be gained by the illiterate, but we need to explode the notion that that's all there <u>should</u> be to it, if only so that performers can know their audiences as Mozart did, and work out how they can make things more immediate and involving

for everyone. There is a common parallel to my suggestion that appreciation of music depends on more than the innocent ear. In my Aural Training days, I observed with mystification that many students, when singing me a melody, or just trying to hear it in their heads, moved their fingers in the way that they would to produce the note on their instrument. Flute players wiggled all ten fingers, violinists just the left hand ones. Even some pianists drummed their right hand (sad that it was always the right hand, unable to transcend the obvious) on their keyboard thighs. It's the sort of thing that makes you suspicious of Sir Simon Rattle's braces! All these musicians were unable to conceive a melody apart from a physical process. They had good mediaeval precedent. An Italian monk, Guido d'Arezzo, put all the different notes on different spots on his hand. He taught singers to read music by moving a finger across the other hand, from spot to spot, so they associated each pitch with a different place - a sort of aural acupuncture, and certainly a parallel to the idea I spoke of last week about memorising a building to put your arguments in. The Guidonian Hand enlivens many a manuscript. Its remote descendant lives on today in the practice of solfege common in French-speaking countries. Whenever they see a note they sing its name in a monosyllabic version - plain Fa, for example, rather than Fa dieze. Where you or I would sing la la la la la la la, or whatever, the educated French musician will go sol mi do la sol mi do. Note, he will only do this if the Archers are in C. A devotee of Curwen's English Tonic sol-fa would be happy with what he's just heard. But he would be surprised when the Frenchman, moving up a tone, sang.. la fa re si la fa re without the tune suddenly turning into a sort of minor key.

One might expect that this concentration on pitch would give the world more Frenchmen with perfect pitch than any other nationality. Why do musical doctoral theses always ask the wrong questions, I wonder? Perfect pitch is commonly supposed to be a musical gift from on high. But, far from fostering great musicianship, perfect pitch can foul things up in a big way. There are people who whip their specky biros out of the top pocket of their anorak every time Radio 3 broadcasts a performance of a work at a pitch other than the standard modern one, where A in the treble stave = 440 Herz, or vibrations per second. 'Dear Sir,' they always begin, ignorant of the sexual make-up of most of the BBC. 'I was appalled to hear a performance of a new piece by JS Bach, his Mass in B flat minor. It turned out to be an inferior version (pun probably not intended) of his Mass in B minor. Please spare us this sort of nonsense.' To which the reader can only breathe 'Amen'. But it seems to have genuinely ruined their evening for them, all because they have a trick of memory of which a common misunderstanding has taught them to be proud, but which they lack the elementary information to comprehend. Pitch has always been a variable commodity. Like Time, it was locally determined. It never occurred to anyone in Penzance to set their clocks about half an hour early, as far as the sun was concerned, until Brunel's first train steamed in from Paddington, and people got off it shaking their pocket-watches. And it was those same trains that demanded standardisation of Pitch, as woodwind players arrived with instruments of the length favoured in Manchester to play with pianos that lived in York. Previously the attitude to Pitch had been summed up by the instruction given in a celebrated Jacobean Lute Tutor: tighten the string as far as it will go without breaking. There were several Standards promulgated for a time, but eventually, and comparatively recently, earlier this century, countries signatory to the Geneva Convention found that tucked in amongst the Copyright and the Mustard Gas was A = 440.

I did a feature once on Radio 3 in which I rang up all the principal oboists of all the great orchestras, and asked them what pitch they gave to their orchestra to tune. It varied quite a bit. Orchestras in Vienna and New York tuned a bit sharp. A famous orchestra in Berlin, until recently under the control of a power-mad extremist, tuned ridiculously sharp. Only a few orchestras, most in Britain, stuck with the standard. The root of the problem was comparison, as usual. If you strain the string up as high as it will go without breaking, it sounds more brilliant, so the orchestra in Berlin seemed artificially more lustrous than the others. Its wind players all needed to have new instruments made, but what's that to a megalomaniac? In case you think that the Berliners were only doing what the Jacobean lutenist had advised, let me remind you that their strings are made of steel, while his were of sheep-gut; and that more Stradivarius violins have their backs broken by too great a string-tension than die a natural death by being sat upon. When I rang the man from the Standards Authority, I told him about all these wicked foreigners ignoring him. 'Oh', he said,' we'll have to change the Standard then.' I hope things work differently with Mustard Gas.

The next obvious problem for those cursed with perfect pitch is an extension of the Mass in B flat minor difficulty. It comes to the fore when accompanists have to transpose songs for singers who have forgotten their tight trousers. We see the piece in one key, but we must play it, and hear it, in another. This can even combine with the Mass in B flat minor difficulty to produce a mind-boggling bit of mental and aural gymnastics. I remember a concert where I was to accompany David Wilson-Johnson in Beethoven's song cycle *To the distant Beloved* on an old piano made in Beethoven's lifetime, which struggled to get up to even a tone flat, by modern standards. Wilson-Johnson liked to sing this at the pitch of C major. This meant that I transposed up a tone, playing a D when it said C, though it came out a C as far as the singer was concerned. This particular concert, I forgot the copy, and all we had was Beethoven's almost illegible rough sketch manuscript - well, a facsimile of it, actually - which was written in the key of E flat. In order to get this to come out at the right pitch on the piano, I had to transpose down a semitone. So I saw it in E flat, I played it in D, and I heard it in C. Where would I have been if a particular note meant a particular pitch? In fact, I do have perfect pitch, but such hair-raising concerts have taught me to control it.

A generation of students at the Royal Academy of Music was taught to control it by mistake - my mistake - but in the process we learnt that perfect pitch can do more than pose practical problems for Radio 3 listeners and vocal accompanists. It can inhibit musical listening.

The fracas that led to my departure from that august and aged seat of musical learning was an outcome of my appointment as a sort of supremo of Aural Training. It is clear that an important part of a musician's studies must be concerned with hearing - *pace* Beethoven, some of whose music proves the point. And so music colleges have always had Aural Classes. Unfortunately, they have always had Aural Exams, too, and once exams come in, learning goes out of the window. The future of the students, the standing of the professor, depend up on the results of the exam. Nothing matters except that it should be passed. The exams were administered at the piano, *en masse*. Students were played a melody or a rhythm, several times, and required to write it down, though the fallibility of Aural Professors meant that they were rarely played it exactly the same twice, especially after lunch. Consequently, lessons resolved themselves into mere previews of the exam. The things that musicians are really interested in, like 'is that flat or sharp', or' is

that vibrato too quick', or 'is that oboe tone too reedy', were never discussed, since the peculiarly unsubtle nature of the piano made them unlikely to crop up in the exam.

I had a radical proposal, which I debated with all the professors and all the students. They agreed with me. It ran as follows. We teach Aural because we believe it improves musical performance. If its effects need to be detected, for actuarial reasons, or for Government statistics, they may therefore be detected in the performance exam. If they cannot be detected there, then there is no point in teaching Aural at all. We need not, therefore, examine Aural separately, and we can avail ourselves of the resulting desirable educational freedom. We all had a great time in Aural lessons, doing something clearly concerned with Music. No longer did I read out the syllabus to my classes. 'It says you must recognise chords,' I would tell them. 'Do you recognise this?' And I would play something. 'Yes,' they would chorus. 'And you must name notes,' I would continue. 'What should we call this one?' 'Alfred,' they would cry. Very irresponsible of me.

But one day, towards the end of this glorious year of actual learning, the Man Who Did The Paperwork came to me with a problem. He had to have a number to put in the Aural column. The Government demanded it. This I had foreseen. 'That's all right', I told him. 'I'm going to make up a figure for each student myself.' But apparently this individual attention is no longer what education's about, and I had in the end to devise an exam for a syllabus that had deliberately set out to be unexaminable. I was so annoyed that I took a sabbatical year which has still not come to an end, seven years later. But first I had to fall back on the unoriginal idea of an exam on tape. I spent hours coaching oboists to play with too reedy a tone, and fewer hours training tenors to sing flat. Finally we were ready to record. I was not to know that the Academy's recording equipment ran at a different speed from all its playback machines. The howls of anguish from the Examination Hall were the first intimation I had that Haydn's G major Quartet was turning into a quartet in A flat, while the examination paper was doggedly sticking to Haydn's version.
The people <u>without</u> perfect pitch were unfazed by this. But the gifted made such a cock-up as I could not have imagined. Years of casual excelling in aural lessons meant that their time had been utterly wasted. They had been so busy recognising notes that they were quite unable to recognise intervals. Most people, given that this is a C (-) would hear the distance between notes in order to work out that this (-) is an A. If you know it's a C and you know it's an A, you don't think about the distance between the notes. But it's precisely between the notes that the music lies, as I learnt during years of working as a repetiteur at Covent Garden, teaching notes to singers without perfect pitch, but who were concerned with the travel and passage of their voice to preserve its full beauty. In comparison, the singing of perfect pitch singers can sound like a set of chime bars. Or of course, like a pianist. It was Schnabel who said 'I play the notes no better than many pianists. But the spaces <u>between</u> the notes.....'

It may seem perverse to end a lecture about memory by talking about sight-reading. They are often thought to be practically opposites. People who are good sight-readers have difficulty memorising, and vice versa. The explanation usually offered gives all the Brownie points to the sight-readers. They're simply good at sight-reading. Memorisers, on the other hand, are only good at memorising because they can't sight-read, and consequently they have to spend so much time on each piece that they memorise it automatically. I

have some sympathy with this view; I've always been a good sight-reader, and memory only came to me very late - oddly enough, my memory is getting better and better as I get older and older. But fortunately I can still sight-read, though I have fewer opportunities as more of my time is taken up with minute preparation for concerts and less with bashing through orchestral scores for rehearsals or even, sadly, playing lots of music just for fun. And there's no doubt that practice does help sight-reading.

But I think the opposition between the readers and the memorisers is more fundamental than the common explanation would allow. You'll find that really good sight-readers always play a piece much, much better the very first time they play than the second, third or even fourth. They are keyed up, more, perhaps, there is a sense of challenge, the subsequent occasions they are likely to be trying things different ways, certainly. But at the root of it, the sight-readers are those who regard music as an activity, and what could be more active than grappling with something absolutely new? While the memorisers regard music as an object, a thing to be devoured. And since this is where I started eighteen months ago, I shall leave you to decide what I really think about memorisers.

Oh, and Rubinstein's nightmare? Well, that throws an oblique light on the memory problem. He would dream that he was walking on stage to play the Sibelius Piano Concerto. There is no Sibelius Piano Concerto.

DAVID OWEN NORRIS