

'What is the material of music? . . . The note, isn't it? So already we ought really to start looking here for rules or order, and for the ways the rules of order manifest themselves. I don't know whether this is so well known to you all, but I should like to discuss it with you: how did what we call music come about? How have men used what Nature provided? You know that a note isn't a simple thing, but something complex. You know that every note is accompanied by its overtones – an infinite number, in fact, and it's remarkable to see how man has made use of this phenomenon for his immediate needs before he can produce a musical shape – how he has used this thing of mystery.

'To speak more concretely: whence does this system of sound come, which man uses wherever musical works exist? How has it come about? Now, so far as we know, Western music – I mean everything that has developed since the days of Greek music up to our own time – Western music uses certain scales which have taken on particular forms. We know of the Greek modes, then the church modes of bygone ages. How did these scales come about? They are really a manifestation of the overtone series. As you know, the octave comes first, then the fifth, then in the next octave the third, and if you go on, the seventh. What is quite clear here? That the fifth is the first obtrusive note, that is to say it has the strongest affinity with the tonic. This implies that the latter note has the same relationship with the one a fifth lower. So here we have a kind of parallelogram of forces, "equilibrium" is produced, there is a balance between the forces pulling upwards and downwards. Now the remarkable thing is that the notes of Western music are a manifestation of the first notes of this parallelogram of forces: C (GE) – G (DB) – F (CA). So the overtones of the three closely neighbouring and closely related notes contain the seven notes of the scale.

'You see: as a material it accords completely with nature. Our seven-note scale can be explained in this way, and we may infer that it also came into being in this way.' [pps. 12-13]

'Concretely; notes are natural law as related to the sense of hearing. Last time, we looked at the material of music and saw this rule of order. My constant concern is to get you to think in a particular way and to look at things in this way. – So, a note is, as you have heard, complex – a complex of fundamental and overtones. Now, there has been a gradual process in which music has gone on to exploit each successive stage of this complex material. This is the one path: the way in which what lay to hand was first of all drawn upon, then what lay farther off. So nothing could be more wrong than the view that keeps cropping up even today, as it always has: "They ought to compose as they used to, not with all these dissonances you get nowadays!" For we find an ever growing appropriation of nature's gifts! The overtone series must be regarded as, practically speaking, infinite. Ever subtler differentiations can be imagined, and from this point of view there's nothing against attempts at quarter-tone music and the like; the only question is whether the present time is yet ripe for them. But the path is wholly valid, laid down by the nature of sound. So we should be clear that what is attacked today is just as much a gift of nature as what was practised earlier.

'I repeat: the diatonic scale wasn't invented, it was discovered. So it's given, and its corollary was very simple and clear: the overtones from the "parallelogram of forces" of the three adjoining, related notes form the notes of the scale. So it's just the most important overtones, those that are in the closest relationship – something natural, not thought up – that form the diatonic scale. But what about the notes that lie between? Here a new epoch begins, and we shall deal with it later.

'The triad, the disappearance of which so provokes people, and which has played such a role in music up to now: what, then, is this triad? The first overtone different from the fundamental, plus the second one that's to say a reconstruction of these overtones, and an imitation of nature, of the first primitive relationships that are given as part of the structure of a note. That's why it sounds so agreeable to our ear and was used at an early stage.' [pps. 15-16]

'Yet another thing which, so far as I know, Schoenberg was the first to put into words: these simple complexes of notes are called consonances, but it was soon found that the more distant overtone relationships, which were considered as dissonances, could be felt as a spice. But we must understand that consonance and dissonance are not essentially different – that there is no essential difference between them, only one of degree. Dissonance is only another step up the scale, which goes on developing further. We do not know what will be the end of the battle against Schoenberg, which starts with accusations that he uses dissonances too much. Naturally that's nonsense; that's the battle music has waged since time immemorial.' [p 16]