

The Watershed of 1960: International Debut

The machinations of ambiguity are among the very roots of poetry.

William Empson¹

Reinventing the orchestra

Ligeti was thirty-seven, *Apparitions* his first substantial orchestral score. Its world premiere on 19 June 1960 not only brought him his first real success as a composer; it also signalled a fundamental change in the direction of contemporary music. The performance by the North German Radio Orchestra under Ernest Bour took place during the World Music Days, the annual gathering of the International Society for Contemporary Music (ISCM) which in 1960 happened to be in Cologne, and was received with spontaneous enthusiasm by the delegates – many of them dulled, no doubt, by the usual dreary submissions of national committees. Ligeti's sculptural, elemental shaping of the music sounded refreshingly direct and original. The audience's excitement at hearing a work so different from the predominantly serialist repertoire of the 1950s was heightened by the antics of the final section, then quite novel: brass players striking their mouthpieces with the hand, glockenspiel clusters played with rulers and the third percussionist wielding a large hammer above a sack of empty bottles. In the engraved score which soon replaced the original facsimile, the player is instructed to take a tray of porcelain and hurl it violently into a large chest lined with hard metal. 'Wear protective goggles,' suggests the composer in a considerate note.

After this flamboyant action, *Apparitions* expires in a dying string glissando and an exhalation of breath from the brass. From a later perspective, we know how commonplace such mildly anarchic gestures became, as music adopted more elements of theatre and performance art – not to mention popular culture and left-wing politics – during the

'liberated' 1960s. Indeed, Ligeti's percussionists have destroyed innumerable further trays of crockery (for example in *Nouvelles aventures* and in the first scene of *Le Grand Macabre*, at the moment when the drunken Piet, descending into a grave to collect Nekrotzar's instruments of death, collides with Amanda, one of the two lovers, coming out). And there were more subversive precedents. Kagel's *Anagrama* of 1957–58 calls for whispering, hissing and screaming from the chorus and wild noises from the instruments. Also present in Cologne in 1958 was a Korean, Nam June Paik, who had attended Cage's lectures at Darmstadt and was influenced by Marcel Duchamp and Kurt Schwitters. Nam June Paik's *homage à john cage* of 1959 incorporated live actions involving eggs, toy cars and a motorbike, whilst *étude for pianoforte* of 1960 required the mutilation of two pianos, cutting Cage's tie and shampooing him without warning, then rushing from the room and telephoning the astonished audience to announce that the performance was over. Paik went on to become European organiser of the Fluxus group with which, as we shall see, Ligeti was fleetingly involved in the early 1960s. But on the whole, if Ligeti did such things he did them for reasons of genuine acoustic exploration. How to bring to an end the increasingly wild and frenzied second movement of *Apparitions* was a real issue. A moment of music theatre seemed an apt denouement.

Apparitions, however, is impressive for more substantial reasons, and was so greeted by critics and commentators. Noting the 'frenetic applause' of the audience, Wolfgang Steinecke wrote in his review of the ISCM Festival for *Neue Zeitschrift für Musik* that 'a great compositional talent was revealed that had lain hidden only because of exceptional circumstances'.² The international constituency of the ISCM audience was advantageous. Particularly enthusiastic were a group of Swedes, including the composers Ingvar Lidholm and Karl-Birger Blomdahl, whose subsequent recommendation led to Ligeti's fruitful involvement in Swedish musical life during the 1960s. A little over a year later, Ligeti's second large orchestral score *Atmosphères* received its world premiere at the Donaueschingen Music Festival on 22 October 1961, its reception no less newsworthy. It had not gone well in rehearsal. The conductor Hans Rosbaud had not grasped its shape, but 'was unbelievably friendly and open'. Ligeti talked with him for ten minutes and explained that '*Atmosphères* is from beginning to end like a bow, which has a closed form. It must not be broken

up. He understood very well. He spoke with the orchestra for a few minutes and then they tried it out. It was perfect!’ Between them, these two epoch-making orchestral pieces established Ligeti’s reputation as a composer of bold, provocative, extreme imagination, and far-reaching resonance.

The performances of both pieces occurred only through happy accident, the first due to the action of Mauricio Kagel, the second to the inaction of Luciano Berio. More disposed to pressurise than Ligeti, Kagel was trying to persuade the ISCM committee to include his *Anagrama* in the 1960 World Music Days, despite the fact that it had not been proposed by the Argentinian national section in Buenos Aires – the normal procedure – from whom he was now geographically separated. The selectors told him they would consider an individual submission, but only if it were not alone. The solution was obvious: encourage Ligeti to submit the orchestral work on which Kagel knew he was working. A year later a similar stroke of luck occurred. Berio had been invited by Heinrich Strobel, head of music at South-West German Radio and programme director of the Donaueschingen Festival, to compose a new piece for 1961, but it had not been completed. To fill the gap somebody suggested Ligeti, who promptly responded with the score of *Atmosphères*. For its inclusion Ligeti received DM1000, the first payment for a composition he received in the West; a proper commission fee would have been twice as much.

Music as texture

In *Apparitions* and *Atmosphères* Ligeti created his trademark, the unmistakable ‘Ligeti sound’ that would define his music for the next two decades. Both works, but especially *Atmosphères*, deal with the global character of the orchestral mass. The microscopic activity of each player’s part is mapped out with immense care; but instead of single lines, we hear only the homogeneity of the whole. Sometimes the resultant cloud hangs motionless; elsewhere it trembles with energy, buzzing like a beehive. Ligeti moulds its inner detail to achieve effects of growth and decay, contrasts of register and timbre, moments of wild violence next to others of mysterious, echoing stasis. Coloration gradually changes. Textures merge imperceptibly, are abruptly juxtaposed or suddenly cut off. Clusters pile up ominously, or are squeezed and attenuated until they disappear.

This sculptural approach to sound was shared by other composers who had toyed with serialism, before being drawn into the comparative freedom of textural structures. Orchestral composition suddenly became popular again, whereas, in the post-war period, the very institution had been decried as tired, inflexible and moribund. Many examples of the new spirit appeared in 1960, notably Lutoslawski’s *Venetian Games*, which introduced a completely new era in the music of this established Polish master, organised through a succession of textural and timbral blocks. For the younger Penderecki, 1960 was also an exceptional year. By the end of it he had completed *Anaklasis*, *The Dimensions of Time and Silence*, his String Quartet no. 1 – a brittle, abstract exploration of the no man’s land between pitched sound and noise – as well as the most celebrated work of his career, *Threnody for the Victims of Hiroshima*. Although Penderecki and Ligeti soon became associated in the public mind, their technical approach was significantly different. Penderecki emphasised broad washes, generalised clusters, glissandi and noise effects, Ligeti a far more intricate micropolyphonic web in which every part is individually shaped. But in the early 1960s this distinction was less apparent. In the central section of *Anaklasis*, for example, Penderecki uses a microrhythmic structure for unpitched, percussive sounds similar to that used by Ligeti towards the end of *Apparitions* (second movement, letter E) – each doing so unaware of the other’s work.

When the premiere of *Anaklasis* took place at the Donaueschingen Festival on 16 October 1960, four months after the premiere of *Apparitions*, it seemed to vindicate the proposition that one could compose simply by using differentiated sound and noise patterns. Sandwiched between Yoritsuné Matsudaïra’s *Suite di danze* and Messiaen’s magnificent celebration of ‘the colour of time’, *Chronochromie* – all of them commissioned by Strobel – it was the more radical *Anaklasis* that excited a response. It was immediately encored, the sort of reception associated with first performances in the nineteenth century. The previously obscure names of Penderecki and Ligeti were now on everyone’s lips. When *Threnody*, with its formidable tone-clusters, was premiered at the Warsaw Autumn Festival in September 1961, it too made an indelible impression on the public and was hailed as a symbolic milestone in the recent development of Polish music. Penderecki’s later retreat into characterless neo-Romanticism was then unimaginable. In the 1960s his reputation as an innovator

was high, his style much imitated. Both *Threnody* and *Atmosphères* quickly received further broadcasts and live performances in other countries. Dealt a mortal blow by this newly fashionable treatment of the orchestra, the downfall of serialism seemed to be assured.

First and second versions of *Apparitions*

In fact, *Apparitions* was only in part a reaction to Ligeti's West European encounters – serialism and electronic music being to the fore – since he had conceived important aspects of it before leaving Hungary. Its roots go back to his childhood dream of a dense tangled web, shaken and torn by entrapped insects (see p. 7), an image absorbed into the non-thematic, textural music he began to envisage in 1950. At that stage he could hear the sound in his head, but lacked the technical experience to notate it. During the summer of 1956 Ligeti made renewed attempts. With the confidence of having completed *Musica ricercata* and the String Quartet no. 1, he drafted *Viziók* for large orchestra, his most radical score so far. Having arrived in the West, he soon decided that, measured by Cologne standards, *Viziók* was unsatisfactory both technically and structurally, and recast it for chamber orchestra, attempting to strengthen its internal relationships by adding a second and third movement. Renamed *Apparitions*, this thorough revision was scored for twelve solo strings, harp, celesta, harpsichord and piano. Frustratingly, since the score of *Viziók* is lost, we cannot compare the two treatments, but the revised first movement also develops ideas from *Sötét és világos*, the orchestral fragment from 1956 which has survived. Both are marked 'Lento sostenuto' and begin in similar manner to the final version of *Apparitions*, with a sustained semitone cluster played by double basses, joined by the cellos, then passed to the harp (in the preliminary sketch of *Sötét és világos*). By the end of the new movement, the low cluster has slowly ascended into the top register of the violins, just as in the final version, and dies away on a diatonic cluster of four notes (D, F, G and A). In the middle are faster passages played by the harp and three keyboards.

Celesta and string dispositions apart, the instrumentation of this chamber version is exactly that used by the Swiss composer Frank Martin in his *Petite symphonie concertante*, a work written in 1944–45 which won notable international success. Ligeti had heard it during the 1947–48 concert season in Budapest, and had favourably reviewed

I. Prestissimo con ardore

Die einzelnen Streichinstrumente spielen die folgenden Motive ausserst leise, so leise und so rasch, wie möglich. Sie passen sich nicht aneinander an (so werden z. B. die Violinen schneller spielen, als die Celli oder der Kontrabass) und folgen nur den Anweisungen des Dirigenten.

Violin 1

Violin 2

Violin 3

Violin 4

Violin 5

Violin 6

Viola 1

Viola 2

Viola 3

Violoncello 1

Violoncello 2

Contrabasso

Ex. 9 Second movement of the first version of *Apparitions* (1957)

it for both Austrian and Hungarian music journals (in which he also deplored Schoenberg's representation by only *Verklärte Nacht*).⁴ Ligeti's new second movement is very different, however, and reveals a fleeting interest in mobile structures. Stockhausen's *Zeitmasse* and *Klavierstück XI* of 1956 indicate the extent to which aleatoric issues, stimulated by Cage's example, were in the air. The German premiere of *Klavierstück XI* at Darmstadt in 1957 – the first of the summer courses attended by Ligeti – set off heated arguments about performer freedom, which Boulez further fuelled in his article 'Alea: On Chance and Music' published in the *Nouvelle revue française* that November. Ligeti's experiment is relatively simple, more like Lutoslawski's 'aleatoric counterpoint' of the early 1960s (see Ex. 9, p. 101). Directed by the conductor, the twelve string players enter playing unsynchronised modules, ranging from a pattern based on two pitches in the top part to thirteen in the lowest. The total pitch distribution covers all the semitones in a range of six and a half octaves (C' to G flat⁷). But as none of the module content changes, the overall effect is static. The final movement returns to precise notation and features rapid figurations for the keyboards over string *pizzicati* – but it appears to be unfinished. Still dissatisfied, Ligeti subsequently gave the manuscript of this version to Ove Nordwall as material for his monograph.

By now he had decided to recast the original *Viziók* section yet again reverting to full orchestra, to write a new second movement and to discard the last. Only in this third attempt, completed in 1958, did he feel that he had 'achieved inner consistency and a sufficiently tight network of structural links'.⁵ This was its form at the ISCM premiere, the title *Apparitions* (in French) denoting both the sonic concept of ephemeral phenomena and indirectly Ligeti's childhood dream.

Even in its final version, the style of *Apparitions* is transitional. Less cohesive than *Atmosphères*, it is more volatile and explosive and also of greater difficulty, for which reasons it has been comparatively neglected in the concert hall. As in Ligeti's subsequent orchestral compositions, textural detail is defined with precision. The string players are asked to differentiate between five types of *pizzicato* and to vary the distance between the bow and the bridge, whilst techniques such as *col legno* (using the wood of the bow) are exploited to the full. Dynamics are extended to embrace *pppp*, *ffff* and all gradations in between. In the String Quartet no. 1, except for one moment of barely audible insect-like scurrying, Ligeti had stretched the normal

conventions by only one step in each direction, i.e. to *ppp* and *fff*. Occasionally in later works he would go as far as *pppppp*, or even (as in the Cello Concerto and Piano Étude no. 13) to *fffffff* – a wholly unrealistic ideal, one might think. But these are exceptions. At the time they were written, orchestras were 'unaccustomed to playing less than mezzo forte', unlike today 'when there are no rehearsals but they know how to play pianissimo, so that some of my pieces you can't even hear!' – but he has not revised their dynamics. In *Apparitions* and thereafter, Ligeti differentiates between *pp*, *ppp* and *pppp*, charging even the quietest of sounds with nuances, so that nothing is non-descript: the music remains vital and intense, however soft. To ensure that such minute gradations of timbral and dynamic balance remain audible requires exceptional tone control, especially from the wind players in pianissimo, and an acute ear from the conductor.

In *Apparitions*, all the string players are allocated separate lines in the score, making a total of forty-six staves when all play together. Ligeti had been moving towards such multiple subdivision in both *Viziók* and *Sötet és világos*, unaware that it had been pioneered two years before by Xenakis. Separate staves facilitate notation, especially where in *Apparitions* clusters in the lower strings span over an octave of adjacent semitones, or all players have different patterns. Pitch choices derive from a reservoir of semitones rather than from any serial ordering, the few discernible melodic lines being freely atonal. The work's broader proportions were influenced by constructivist dogmas emanating from Cologne, as well as by Ernő Lendvai's identification of golden section structures and Fibonacci numbers in Bartók – although in retrospect, Ligeti felt that he 'could have applied any other principle of proportion just as well'.⁶

Micropolyphony: an 'intricate labyrinth of sound'

In the second movement of *Apparitions*, for the first time in Ligeti's music, we find an example of what he has christened 'micropolyphony', a technique with which he became strongly identified in the 1960s and 1970s. Micropolyphony is microscopic counterpoint, an internally animated yet dense texture in which large numbers of instruments play slightly different versions of the same line. At its core can be a three- or four-part counterpoint of different melodies, but with each multiplied by perhaps a dozen or more variants of itself,

resulting in an intricately complex web. Although micropolyphony may simultaneously employ every instrument in the score, more characteristically, bands of instruments enter and leave, and the composer's skill is in keeping timbral coloration in flux. Spinning the web, sculpting its expansion and contraction, controlling its direction, are all part of the art. Ligeti has cited the influence of Ockeghem, whose music he studied as a student, and one may think of micropolyphony as a distant descendant of Flemish polyphony, overlaid upon itself many times, with certain registral bands blocked out, as if removed by the filter-banks of an electronic music studio.

Usually instruments or voices start together or in succession on a single note. Frequently – although not in *Apparitions* – they enter so softly that they appear to grow out of an indefinable mist, rather than from definable pitch. Often the microscopic lines gradually diverge, the slow-motion expansion from a nucleus being one of Ligeti's most famous and magical hallmarks, subsequently much imitated. In *Apparitions*, however, the technique makes a more exuberant first appearance. Twenty-four violins simultaneously play exactly the same melodic pitch sequence, but each instrument has its own pattern of durations so that no two are rhythmically identical. The eight violas follow another pitch sequence, as do the fourteen cellos and double basses. The dynamic is *fff*, and the effect is of a seething mass of melodies, some more frenzied than others. Amongst the twenty-four violinists, the most active (the principal second violin) gets through forty-four notes in seven bars, whilst the least busy (the twelfth first violin) plays only twenty-three. However many notes a player dispatches before the micropolyphonic texture comes to an end, each draws from the same angular pitch sequence,⁸ although Ligeti adds a note saying that 'verve is more important than completely accurate intonation'. Each player is to exert the utmost force, playing as intensely as if he or she were a soloist.

An absence of pulse

An equally significant development, apparent in both *Apparitions* and *Atmosphères*, is the removal of metre and pulse. Metrical rhythm was entrenched in the String Quartet no. 1, except for its prophetic last four pages in which glissandi of artificial harmonics accompany slithering melodic phrases, marked *sempre rubato, senza misura*. It was the

beatlessness of the music forming in his mind in the early 1950s that had defeated his attempts to notate it. In *Apparitions* Ligeti tries two solutions. One is the composition of clustered textures which have no regular pulse, but are scored for convenience mainly in 4/4. This is his approach in the second movement, and it would serve for many more pieces. The other is to position the clusters, interspersed with more volatile events, in a sequence of changing time signatures, as in the first movement. Constant variation of metre occurs in other composers' scores in the 1950s and was motivated, in part, by a distaste for the rhythmic regimentation of martial music played incessantly during the Second World War. Executed with the sophistication of Boulez in *Le marteau sans maître*, changing bar-lengths and subdivisions create a wonderful elasticity. But for performers the counting of fractional tempo relationships can be inhibiting. This is hardly a problem in the first movement of *Apparitions*, because of its extremely slow tempo of crotchet = 40. Nevertheless, there is a different time signature in nearly every bar, and the music itself is awkwardly disjunct. The means influence the concept, as they are also dictated by it. Ligeti would not employ such constantly variable bar-lengths for a large group of players again.

There is no serial ordering in *Apparitions*, but to organise the material Ligeti employed a concept of 'scaling'. In the first movement this involves a 'repertoire of durations' planned with serial precision, but from a more logical standpoint. In standard duration series, where all gradations appear with equal frequency, longer durations dominate, simply because they are longer. Pitch series have no such hierarchies, but to a duration series they are endemic. To avoid this potential disadvantage, in *Apparitions* Ligeti created a 'system of apportionment [in which] the length of the shortest element, multiplied by the number of times it appears in the piece, matches the total length of the longest'.⁹ The model for this approach was verbal language, in which letters like 'x' and 'z' occur infrequently whilst others appear more often. Any verbal language can be defined by the statistical frequency with which its component letters appear; whilst the way they are associated – the syntax – is at the behest of the user and accounts for his uniqueness of utterance. It is the method of 'scaling' in the first movement of *Apparitions* that results in its constantly changing bar-lengths and makes the music sound unpredictable. The same system had governed *Artikulation*. But its attraction for Ligeti was short-lived.

After 1960 he lost interest in predetermined repertoires in favour of syntactical connections.

Already, the second movement of *Apparitions* reveals a different approach. It is as rhythmically fluid as the first, and no less textural, but the effect is achieved through simpler means. The movement has three sections, each using a different technique. The first is polymetric, the second micropolyphonic, the third a sequence of sonic blocks spawning fragments of melody. The first grows out of short clustered tremolos punctuated by rests, soon to encompass runs, cascades and brief fanfares. Beginning with the strings, its separate timbral layers are assigned different subdivisions of the beat (3, 5, 6, 9, 10 etc.), although the metre itself remains constant. The layers interact with much rapidity, the prevailing soft dynamic interrupted by sudden surges and explosions. The second section, entering ferociously in triple forte, is the micropolyphonic texture already discussed. It is in two segments, the second abruptly terminated 'as if snatched away', leaving behind an airy (and eerie) fluttering, as the wind and brass lightly tongue their instruments in unpitched polymetric patterns. There follow some scarcely audible tremolos, momentary swooping glissandi from the strings and trombones, and fragile strands of melody – a series of musical 'incidents' culminating in the third percussionist's *coup de théâtre*. The character of this movement is a prelude to the restless, fragmented manner of *Aventures*, *Nouvelles aventures* and the third movement of the Requiem.

Although most of those at the premiere of *Apparitions* reacted with enthusiasm, some demonstrably did not, including members of the North German Radio Orchestra who showed their contempt by refusing to stand to acknowledge the applause. *Apparitions* continued to provoke mixed reactions. At the Munich Music Viva a year later, the audience tittered with amusement and greeted the composer's arrival on the platform with boos and catcalls. 'Ligeti took the unfriendly reception with a smile,' wrote one critic, 'knowing that the problematic nature of his *Apparitions* cannot be concealed by applause.'¹⁰

Colour and harmony in *Atmosphères*

More than *Apparitions*, the premiere of *Atmosphères* in October 1961 was a defining moment in the establishment of Ligeti's mature style. From its opening fifty-nine-note cluster, entering pianissimo and

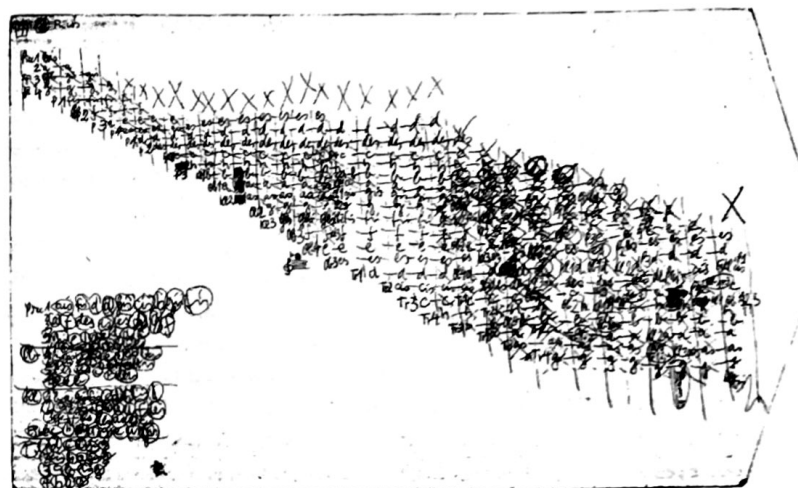
gradually fading during the first minute without change of pitch or any other activity, the listener is drawn irrevocably into a mysterious new world of sound and sensibility. Yet, compared with the geometric scores of the Polish school and mathematically driven works of Xenakis, there is something directly emotional about *Atmosphères*. Ligeti's sensitivity to the expressive potential of pitch prevents his abandoning harmonic structure so completely. Despite its novelty, the piece owes more to the past. Like Boulez, Ligeti was fascinated by the fluidity of Debussy's late ballet score *Jeux*, which many of Debussy's contemporaries had considered to be incomprehensible, added to which its premiere in May 1913 had been upstaged by that of *The Rite of Spring* two weeks later. But by the 1950s *Jeux* had become widely admired amongst the avant-garde. In a radio talk in 1954, Stockhausen analysed Debussy's score in terms of sonic blocks, densities, mass, and their statistical tendencies,¹¹ claiming it as a prototype for the textural compositions of the 1950s. Equally influential for Ligeti were Schoenberg's *Five Pieces for Orchestra* which he also discovered around this time – notably the shimmering third movement, 'Farben'. And there were more distant precedents. At the start of Beethoven's Ninth Symphony and frequently in Bruckner the music begins with an atmospheric tremolo, as if defining the nature of the acoustic space into which the themes will be projected. *Atmosphères* explores only this void. Identifiable melodies and rhythms never emerge from its gaseous clouds. But the empty vessel never stagnates. As in Debussy, pitch, timbre and texture fuse together, animating the space.

A novel aspect of Ligeti's technique is the dynamic and timbral phasing that occurs within otherwise static clusters, changing their coloration and even their apparent harmony. The opening cluster in *Atmosphères* covers five and a half octaves and lasts for three quarters of a minute.¹² During this time the wind instruments gradually fade, the disappearance of their glowing sub-cluster in mid-register leaving a barely audible halo of divisi strings. The following cluster is played by violas and cellos, spans only an octave and a fifth and sounds noticeably 'cooler'. This is succeeded by a huge chromatic cluster at letter B, played by every instrument in the score and sustained for a whole minute. During this time groups of instruments crescendo and diminuendo in turn: first the trumpets, trombones and double reeds, then the flutes, clarinets and horns, finally the strings. As a result, not

only do we hear timbral change; we seem to hear a chord progression, although in reality no pitch changes occur.

But the non-existent chord progression is not complete fiction. By highlighting different groups within the whole, Ligeti creates an illusion of four successive harmonies. The first is the cluster at letter B, sounding intensely soft but weighted towards the top. From this emerge and fade two brighter entities, chosen from the wide range of pitches already present. Both are diatonic chords but tonally opposed, as the spotlight shifts from a white-note aggregate (trumpets, trombones and double reeds) to a black-note pentatonic aggregate (flutes, clarinets and horns). After these also fade, there remains the cool afterglow of the strings playing *sul tasto* (on the fingerboard): pallid, drained of colour. The strings, too, apparently play a new cluster containing all the semitones spanning four and a half octaves. In fact these pitches have been sustained ever since letter B. Through timbral and dynamic shading Ligeti has caused different subgroups selectively to catch the light.

The technique of selective highlighting becomes far more sophisticated in *Lontano*, in which the timbral-dynamic phasing is extremely subtle. In *Atmosphères* most of the pitch structures are not conceived chordally at all, although they have a role in shaping the music. After the passage just discussed, the flutes, clarinets and strings (except the double basses) animate the sustained textures through a gradual introduction of tremolos. No two of these fifty-six tremolos are exactly alike, but they nearly all encompass minor thirds so that one senses a minor third identity within the chromaticism of the whole. Later (at letter H), there occurs a passage of micropolyphonic counterpoint for all the strings. As we observed, Ligeti first properly attempted a micropolyphonic texture in *Apparitions*, where it unleashed a ferociously energetic display. This second instance, the only passage of micropolyphony in *Atmosphères*, is different. The micropolyphonic web enters extremely softly, increasing in volume only in the last four bars. Each part has a stepwise pitch sequence except where octave shifts are necessary. What starts as a huge net stretched across five octaves winds down into the centre, the upper lines descending, the lower ascending. Gradually compressed, the fifty-six strands twist ever tighter into a dense knot, tied together by a minor third. Cut off at their maximum dynamic, we are left with a narrow cluster, sole residue of this many-layered polyphony, softly rotated by flutes,



EX. 10 Planning *Atmosphères*

clarinets and a single horn. The fan has slowly closed until it is barely pencil thick. A moment later, this quietude is dispelled by a metallic surge from the brass in low register, braying stridently through their mutes. Thereafter, the remainder of *Atmosphères* floats away in delicate flutters and vapid harmonics hardly recognisable as pitched. Just audible is a minor-third cluster played as harmonics by the four flutes, rolling up to another and dying away.

Atmosphères is essentially a sculptural moulding of sound. Amongst Ligeti's sketches are drawings, grids and matrices mapping the geometric shape of the clusters and their physical evolution through time (see Ex. 10, p. 109). From these it is clear that many of the minutiae are governed by mathematical, perhaps statistical rules. Tonal architecture must have been far from the forefront of Ligeti's mind. But the shadow of a harmonic subplot suggests that schooling and instinct had not been entirely overthrown. The presence of selective aggregates and recurrent intervals, the alternation of white- and black-note groups, the contrast between clustered constellations and their nuclei are things that exist in Debussy, if very differently – like the incessant minor-third motto in his piano *Prélude, Des pas sur la neige*.

Serial and electronic influences

Nor has serialism wholly disappeared from *Atmosphères*. Its legacy is evident in the micropolyphonic weave at letter H, where each of the twenty-eight violins plays an identical pitch sequence but with its own unique rhythm. The sequence itself is a twenty-four note melody, or two slightly different twelve-note series, descending across two octaves. The first of them extends a four-note segment (F sharp, G, F, E) by sequential transposition (the next segment is D, E flat, D flat, C) to fill the twelve-note gamut. The second does likewise but using a marginally different pattern. At the beginning of the passage all the violins enter together, starting on successive notes of the pitch series, proceeding from the principal first violin at the top to the fourteenth second violin at the bottom. Thus we hear the series both in linear and vertical form, except that for the twenty-eight violinists there are only twenty-four pitches, so four pairs share the same entry pitch. Meanwhile violas and cellos play a similar ascending twenty-four note series, sounding like an inversion of the violin series, but built in fact from retrogrades of each four-note segment in turn. Here, too, all the

players enter together, each starting on the next note of the pitch series. Effectively this is a huge forty-eight-part canon combining traditional retrograde and inversion techniques. Its purpose is chromatic saturation: a serial means to a non-serial end. Each line (fifty-six of them once the basses enter) is expressively charged, but none can be isolated. Individuals are subsumed in the crowd.

Atmosphères, as we recall, originated as an unrealised electronic score, *Pièce électronique* no. 3. Although nowhere can the electronic and the orchestral score be correlated, both are concerned with timbral phasing. Because it was conceived as an exercise using only sine waves, the orchestral piece has no place for percussion, apart from two players sweeping the strings of a grand piano, notably at the end. Oboes, which Ligeti had omitted from *Apparitions* because of their inappropriateness to the 'unreal' ghostly sound he sought, are now restored, but play for only nine bars. Neither piece has the elegance of later Ligeti. He was still working out the syntax of the new language and the results are somewhat idiosyncratic. Apart from cluster transformation, other facets vie for attention, especially in *Apparitions*: clock-like mechanisms, abrupt juxtaposition, flamboyant gestures. These he would differently emphasise throughout the 1960s. Some pieces focus on one approach, like *Lontano* and *Continuum*; others, like the String Quartet no. 2 and Chamber Concerto, mix or alternate these styles.

International excursions

Like *Anaklasis* the year before, *Atmosphères* was received so enthusiastically at its first performance in Donaueschingen on 22 October 1961 that it was immediately encored. Its reputation quickly spread, assisted by new vigour in the promotion of contemporary music. In Britain William Glock had become Controller of Music at the BBC. His programming of the Henry Wood Promenade Concerts, and of a new series of Invitation Concerts begun in 1959, initiated the BBC's boldest years of commitment to the European avant-garde. The BBC's Third Programme became essential listening for all aware musicians. The first relays of Ligeti's and Penderecki's orchestral novelties generated widespread interest and discussion, their sculptural treatment of sound instantly etched on the memory in striking contrast to the pointillism of Boulez and Stockhausen – let alone the late products of Stravinsky, by now an ageing camp follower of serialism.

Eastern Europe had become less remote. Whereas for Hungary the end of 1956 had been disastrous, in Poland Gomulka's cultural thaw allowed contacts with the West, enabling the Warsaw Autumn Festival to be established that year as one of the most important platforms for new ideas. With the increasing impact of America and growth of international travel, the authority of the Darmstadt-Cologne avant-garde diminished, undermined by its own fragmentation. During the winter of 1962-63 Stockhausen himself went to live for six months in a villa on Long Island, where he got to know many of the New York artistic elite and attended the first pop-art exhibitions by Andy Warhol and Roy Lichtenstein. Three months later, Xenakis also crossed the Atlantic to lecture at Tanglewood, finding that in the USA he was already a celebrity, even if few understood his music.

Ligeti was yet to make any significant impression in America. In January 1964 Leonard Bernstein introduced *Atmosphères* to New York, though it was not, in fact, the American premiere. A year earlier, the Cuban composer Aurelio de la Vega had organised a performance at the San Fernando Valley State College (later California State University, Northridge) where he had become professor of composition, and wrote to Ligeti to tell him about it. Unsurprisingly, in the wider circles of North American music, this performance went unnoticed.

Although Ligeti had settled in Vienna and would not visit America for another ten years, he was invited to lecture in Europe and Scandinavia. In 1959 he visited Stockholm and delivered (in German) two lectures on Bartók and Kodály. Mátyás Seiber had recommended him for a permanent post at the Royal Swedish College of Music. Ligeti did not get it, but in the autumn of 1961, he was asked back as a guest lecturer at the instigation of Lidholm (a pupil of Seiber) and Blomdahl (newly appointed chair of composition). The invitation was repeated, and Ligeti became a regular visitor returning every year until 1971, his visits helping to stimulate a new era in Scandinavian music. In 1962 he went for four weeks, but usually it amounted to a fortnight two or three times a year, providing him with a welcome source of income. His principal role was to direct the composition seminars which the Royal College organised as an adjunct to individual lessons. Besides the obvious choices of Debussy, Webern, Stockhausen and Cage, he lectured on Kagel's *Sonant*, Cerha's *Mouvements* and Cardew's electronic *Second Exercise*. His discussions of Romantic

orchestral technique (especially Mahler's Sixth Symphony) led on to Schoenberg's use of *Klangfarbenmelodie* followed by his own approach as exemplified in *Apparitions*, *Atmosphères* and the Requiem. Some of the colouristic exercises written by his pupils, who included Folke Rabe and Arne Mellnäs, were reproduced in a booklet printed in Stockholm, in which Ligeti described the content of the seminars he had held in 1962-63.¹³

The work of the textural composers was observed by Boulez with polite but withering scorn. In 1963 he published *Boulez on Music Today*, written at Darmstadt and intended to fuel its polemic, observing not only that clusters and glissandi were too elementary for his liking, but that 'their recent abuse has rapidly turned to caricature. This quickly "parcelled" material is no guarantee of great acuteness of conception; it suggests, on the contrary, a strange weakness for being satisfied with undifferentiated acoustic organisms.'¹⁴ In attacking a lack of differentiation, texturalists and serialists were now accusing each other of exactly the same defect!

Following Cage's European excursions, 'happenings' and the Fluxus phenomenon had also crossed the Atlantic from New York. The fire-crackers they ignited, plus a few damp squibs, are subjects for the next chapter.