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Stockhausen – 1: Stimmung

PART 1: INTRODUCTION FOR THE LISTENER

GREGORY ROSE

IN THIS INTRODUCTION I would like to give you some hints on what to listen for in *Stimmung*, and to give you some thoughts on this work from the performer's angle. *Stimmung* offers sounds and ideas even those familiar with contemporary music may not have heard before. Some of these ideas are closely related to the so-called 'filtering' systems used in electronic music. But there are only six solo voices used in the entire piece, with no electronics or synthesisers.

Throughout the waking hours you experience sound. John Cage was one of the first Western thinkers to proclaim that there is no silence. Wherever you are you hear rich, variable noises: sometimes identifiable, sometimes anonymous. These sounds are omnipresent: even if you are locked into a totally sound-proof studio, your pulse and body sounds become more and more audible, and replace the externally produced noises of normal life outside. The remarkable thing about *Stimmung*, for all its complexity of plan, is that its sound-source is used in its most simple form: the human voice not only reduced to its primary elements of note and overtone, but produced in such a way that individual overtones of a note are isolated. This procedure was virtually unknown in Western music until recently.

The voice, just like any other instrument, has a method of sound production based on the overtone series.¹ Western singing techniques have developed in ways that tend to obscure these overtones. Forward production and vibrato have evolved steadily from the days of oratorio, opera and lieder, and although overtones are still present in Western classical singing, they are less perceptible. *Stimmung* is the first piece in recent Western music to use overtones as a *primary* element, and in order to achieve these overtones, singers have to learn a special technique. Firstly, they must reduce the volume of sound. That is, they must not project their voice from one end of the concert hall to the other. They also withdraw all vibrato. They then start work on clarifying overtones.

In *Stimmung*, all *basic* notes (of which there are six) spring out of a very low unsingable note (B flat). As overtones of this fundamental note (see Example 1), each of these six notes in turn becomes the fundamental or bass note of its *own* harmonic series. In this way the 'basic instrument' of the piece is formed. Each basic note is produced by the voice, and each overtone is achieved by a shortening of the sound chamber in the mouth by the tongue, and through the use of various lip positions.

This process of clarification is aided by the use of microphones. Microphones are essential for three reasons. Firstly, they ensure that the singers do not attempt to project their voices, thereby using the upper cavities in the head and behind the nose. Secondly, since microphones act to a certain extent as filters, they help focus and clarify the overtones even further. Thirdly, the microphones enlarge the delicate sound so that a wider area of the hall can be reached. It should be stressed that the purpose of amplification in this type of music is not to

¹ For a succinct explanation of the 'overtone' or 'harmonic series' see, for example, Deryck Cooke, *The Language of Music* (London: Oxford University Press, 1959), p. 41.

make the singers sound louder, but to carry the small volume of sound further: a sound extension rather than a sound expansion.

The way in which the overtones are produced in the mouth and through microphones is akin to the filtering systems used in electronics, where you can add or subtract overtones with a filter dial. There is also an affiliation with the structure of words and language, which is indeed how the overtones are articulated. Stockhausen used 21 vowels from the *International Phonetic Association Handbook*, and made a table indicating which vowels corresponded to which overtones with which fundamentals. Vowels, like the overtone series, are a mixture of basic sound from the voice, plus tongue and lip positions. All the rhythms of *Stimmung* are the result of placing rhythmic vowels on the basic notes.

In addition to the rhythmic matter, there are what Stockhausen calls 'magic names': that is, names of gods from East and West. These have to be incorporated into the changing rhythms of the piece (these are discussed later in the Introduction), and the piece's mood has to alter according to what kind of god has been announced: from the ferocious American Indian Sioux 'Watantanka', the thunder god, to the little sun-goddess, 'Atum-ra', from Ancient Egypt.

Stockhausen uses consonants as well as vowels and magic names. Sometimes these consonants are linked to various words, such as 'Haleluja', 'Maria', 'Vishnu', and sometimes to the days of the week in German and English. In addition to these words and the magic names there are four poems of differing lengths written by the composer. These poems have many double meanings and alliterations. On the whole the double meanings have sensuous and sexual connotations more commonly found in ancient Arabic and Chinese writings than in the more

Example 1



prudish European texts of the 19th and early 20th centuries. The most important poem is 'Langsamen', spoken in the Singcircle Version of *Stimmung* by the baritone. 'Langsamen. Mein Hahn ist meine Seele, wenn ich Dich versenke. Ganz vorne in der Spitze sitze ich (ich meine wirklich, wenn ich sage "ich", mein grosses ICH) in meinem Ein-Mann-Torpedo-Bug.' A man about to make love thinks of his phallus as being both his soul about to enter another body, and a torpedo ship. Another poem, spoken in the Singcircle Version by the tenor, speaks of a woman's breasts. 'Meine Hände sind zwei glocken. Binge bung . . .' Another, spoken by the bass, 'Diff, daff', contains the image of a huge bird in flight, flying high with long, broad movements.

The passing on of material is what performers of this

piece find hardest to put into practice. A leader announces some material — a rhythmic vowel pattern — and other singers gradually absorb it. For example, about 45 minutes into the Singcircle Version of *Stimmung* the bass leads. Only the tenor picks this up, as all the other singers are occupied with previous material. When the tenor himself announces a new model, the bass continues with the previous one. It is left to the baritone to transform into it from two models previously — a model which was faster in tempo. The problem is always how much the singers can gradually transform their material from one section to another, slowing down and speeding up as the case may be.

The singers have to concentrate for about 75 minutes in this piece, breaking what I believe some psychiatrists reckon to be a 50-minute concentration barrier. They do not have to sing all the time by any means, but often, during the periods when the composer directs that they sing around the notes of the leading singer, they

improvise while looking at one another, and it is possible to feel the crossing over of ideas. In Singcircle we have tried not to be too introvert about the presentation of the piece. This is a danger when both rehearsal and performance of the work is such an intimate affair. We have found *Stimmung* very calming to come to each time we have met: sometimes in three's, sometimes in four's, and sometimes altogether. In a way, it is a strange mixture of a religious meeting of transcendental meditators and a meal in a Western household.

In *Stimmung* we find a work in which the sound structure is new to Western ears (although it has often been said that similar overtone techniques have been practised by Tibetan monks over many centuries); where the structure of development through the work, largely dependent on improvisatory techniques, is not yet common in Western music (although this situation is slowly changing); and where the overall shape of the piece is a fascinating mixture of static and moving forms.

PART 2: NOTES TOWARDS AN ANALYSIS

SIMON EMMERSON

THIS PART OF THE ARTICLE will not attempt an in-depth analysis of *Stimmung*, but is intended to aid further discussion by placing on record the basic plans and differences in choices made between the two versions so far presented publicly in Britain: those of the Collegium Vocale of Cologne ('Paris Version', 1968) and the British group Singcircle ('Singcircle Version', 1977).

It has all too often been the case that Stockhausen's 'mobile' compositions — that is, those whose 'moment form'¹ is in principle realised — have only been presented in one version. We can, however, glimpse in the two recorded versions of *Momente* (1965, and the completed version of 1972)² the striking changes in effect which can be generated when 'moment group' orders are changed, in this case reversed. It seems, furthermore, that the real individuality of a 'moment' can only be manifest in its mobility. By hearing it in its several possible environments its special characteristics will be highlighted. For example, in *Momente*, the M(m) moment has such different functions in each version: a shattering and sudden focus which launches the 1965 version, and an apotheosis which concludes that of 1972!

But the problem remains that it is all too easy to follow the recorded (and officially sanctioned and accepted) versions of these works in mounting a new performance. As is well known, the composer himself has unfortunately sought to influence the 'oral tradition' of his music by preparing for publication the 'Paris Version' of *Stimmung*,³ complete with the numbers of repetitions, transformations and so on which the original group had evolved painstakingly over many months of rehearsal.

¹Each Moment, whether a state or a process, is individual and self-regulated, and able to sustain an independent existence . . . the moments are not merely consequents of what precedes them and antecedents of what follows.' (Karlheinz Stockhausen, *Texte Band II: zur eigenen Werken; zur Kunst anderer* [Cologne: DuMont Schauberg, 1964], p.250, translated and quoted by Roger Smalley in 'Momente: material for the listener and composer — I', *The Musical Times*, Vol.115, No. 1571 (January 1974), p.25).

²The 1965 version is on Nonesuch 71157 and Wergo 60024 (this is the same recording). The 1972 'Europa' version is on DG 2709 055.

³Nr. 24½ 'Pariser Version', Universal Edition (forthcoming).

One hears rumours, too, that transcriptions of the recorded versions of the *Aus den Sieben Tagen* works — 'text compositions for intuitive music' — might be made. While perhaps valuable for analysis, they should remain *descriptive* rather than *prescriptive*!

It is against this background that Gregory Rose decided in 1976 to work on a new version of *Stimmung*: without at first any reference to the recorded version made by the Collegium Vocale of Cologne.⁴ Amazingly, he and the singers did not listen to this until after the first four Singcircle performances. This totally unfettered approach is evidence that the score *in itself* does indicate sufficiently the directions for performance.⁵ While modifications have subsequently been made (both by comparison with the recorded version and after consultation with the composer), the individuality of the choices remains striking, as does the detached ability to criticise the earlier version in a way not possible had it been used as a model.

The only advantage in having a published 'Paris Version' will be that we shall be able to see the modifications to the original score which this embodies. As with many of Stockhausen's works, the recording was made before a major tour that would have ironed out some of the problems: in this case after only a handful of presentations which were followed within a few years by over 150 performances (75 at the Osaka World Fair in

⁴DG 2543 003.

⁵With one exception! Note 13B in the Introduction lays out a 'vowel square' which combines individual vowels with the number of the overtone to be accentuated. Now vowel overtones work according to formants: frequency regions of reinforced overtones which remain relatively constant and largely independent of the fundamental. The pairs of numbers assigned to each vowel in the square, as in the models (being in the ratio 2:1), can therefore only refer to two fundamentals an octave apart — the two B flats. Thus for the higher D, A flat and C, new numbers need to be written into the models. The statement 'the number above the vowel applies to high male voices and low female voices (for example, on the pitch 285 Hz)' is thus incorrect, since if the lower note is 114 Hz the upper number can only apply to 228 Hz. For the other upper notes the numbers will be different: even changing a model during rehearsal requires a complete change in the vowel numbers if the note is changed. This took Singcircle many hours of investigation and has subsequently been accepted by the composer.

1970 alone). The 'Paris Version' was surprisingly uniform. The two performances I heard, in London in 1971 and Birmingham in 1972,⁶ were remarkable for their steady refinement of an almost unaltered version. I believe they substituted 'Donnerstag' for 'Barbershop' at a well-known point in the work! The director of the Collegium Vocale, Wolfgang Fromme, recalls performances as short as 62 minutes 'when tired', and as long as

82 minutes 'on good days'. Thus the record is a criticisable realisation of the original score, with only some refinements and modifications to that score's demands.

Singcircle's first performances likewise followed Stockhausen's directions too literally. The spoken poems, for example, were declaimed in the rhythm of the model in which they occurred, and the 'magic names' were shouted with a profligacy and gay abandon which

Example 1(a): *Choice of Model Sheets*

SINGCIRCLE	COLLEGIUM VOCALE		
Soprano 1	Soprano 1	—	'Frauenstimme Modelle' 'Male is basically an anymale'
Soprano 2	Mezzosoprano	—	'Ruselralkrusel...'
Mezzosoprano	Soprano 2	—	'Wednesday'
Tenor	Bass	—	'Mannerstimme Modelle' 'Nimm dich in Acht'
Baritone	Baritone	—	'Langsamen'
Bass	Tenor	—	'Diff daff...'

The sheets are not numbered in the score, so I have identified them above by prominent poems or models.

Example 1(b): *Choice of Magic Name Sheets*

SINGCIRCLE	COLLEGIUM VOCALE		
Soprano 1	Soprano 1	—	Ancient Greek
Soprano 2	Bass	—	Australasia, Africa, Amerindian
Mezzosoprano	Baritone	—	Aztec, Toltec
Tenor	Tenor	—	Arab, Far East, India
Baritone	Soprano 2	—	Near East, Egypt
Bass	Mezzosoprano	—	South America, Polynesia, Eskimo

This example represents six sheets, each containing eleven names of gods in regional or continental groups

Example 1 (c): *Choice of Model Order (Collegium Vocale/Singcircle)⁷*

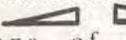
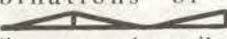
1 Bass (1/5)	2 Mezzo (4/5)	3 Sop 2 (7/7)	4 Sop 1 (3/1)	5 Bar (7/6)
6 Tenor (7/2)	7 Bar (2/8)	8 Sop 1 (7/5)	9 Bass (6/7)	10 Sop 1 (1/3)
11 Bass (4/6)	12 Tenor (4/9)	13 Bar (3/2)	14 Sop 2 (1/2)	15 Mezzo (5/1)
16 Bass (9/1)	17 Sop 1 (6/8)	18 Tenor (1/1)	19 Bass (2/3)	20 Sop 2 (6/6)
21 Bar (4/4)	22 Mezzo (1/8)	23 Bar (8/5)	24 Sop 2 (4/8)	25 Mezzo (2/2)
26 Sop 1 (2/4)	27 Mezzo (6/)	28 Bass (3/4)	29 Sop 2 (2/)	30 Sop 1 (8/6)
	Tenor (6)		Bar (1)	
31 Mezzo (3/3)	32 Bar (9/9)	33 Sop 2 (5/5)	34 Sop 1 (5/7)	35 Bass (7/2)
36 Tenor (2/4)	37 Mezzo (7/4)	38 Bar (6/)	39 Tenor(3/)	40 Bar (1/3)
		Sop 2 (3)	Mezzo (7)	
41 Bass (8/8)	42 Bar (5/7)	43 Tenor (9/5)	44 Bass (5/9)	45 Sop 2 (8/1)
46 Tenor (6/8)	47 Sop 1 (4/2)	48 Mezzo (8/6)	49 Tenor (8/7)	50 Sop 2 (3/4)
51 Tenor (5/3)				

The above chart is of necessity in code and can only be used by someone wanting to create a new version or to compare existing ones with the aid of the score. There are 51 combinations in the work. The two figures in brackets indicate which model on the sheet the singer uses. These are numbered 1-8 or 9, left to right, row by row. The first figure is that model chosen in the Collegium Vocale version, the second that in the Singcircle Version. These two numbers are not necessarily from the same sheet, but refer to the models on the sheet that particular singers in each version have in front of them. Singcircle swapped two pairs of leaders - but not the pitches - of the formscheme as indicated: 27 with 39, and 29 with 38.

⁶English Bach Festival, St. John, Smith Square, London, April 29, 1971; Contemporary Music Network, St. Paul's Church, Birmingham, October 20, 1972.

⁷I am indebted to Gregory Rose for permission to publish this chart.

resulted in some cluttered textures. On both these points the 'Paris Version' was obviously more controlled. Singcircle, both from direct comparison and through experiencing the same processes of self-criticism as the Cologne group, have modified their approach accordingly. This preliminary phase covered five public performances: at the Round House and the BBC Concert Hall late in 1977 and in Glasgow, Edinburgh and Nottingham early in 1978. Gregory Rose and I visited the composer in April 1978 for two exhaustive and enlightening sessions on the 'Singcircle Version'. This resulted in some slight structural alterations which have a direct bearing on the notion of choice in these mobile works.

Stimmung has a fixed 'formscheme' which defines the pitches that each singer uses for each of the 51 'models'. It also indicates which singer 'leads', that is, introduces each model. Male singers have nine models each, female singers eight. The order in which the models are introduced is determined by the singers among themselves, and each model is used only once. In principle a singer may enter with any of his or her nine or eight models. Indeed, the score stipulates the possibility of making this choice *during* the performance. The composer's approach assumes that choices of ordering will be made with some very traditional criteria of overall shapes and forms in mind. In the 1970s he is talking once again of 'characteristic shapes' which the performer should use as the basis for a version. An example of such a shape is . It is possible to make combinations of such shapes as follows: . The version is then built up like a jigsaw puzzle until the mobile units, the models, are all used up. General considerations such as the distribution of the poems and the processional or meditative nature of the first and final models lead to a much reduced scope for spontaneous fantasy, but much greater structural coherence and direction. However much the principles of 'moment form' seek a retrogradable non-directional notion of time, Stockhausen has never escaped the basic principles of goal-orientated musical processes. Nevertheless, the differences between the 'Paris' and 'Singcircle' versions can clearly be seen within these constraints.

A comparative summary of the two versions is set out in Examples 1(a), (b) & (c). To this comparative summary are appended some general comments towards an

analysis of the work.

1: THE FORMSCHEME

A complete analysis of the formscheme is beyond the scope of this article, but some preliminary points may be noted which illustrate clearly the basic conflict of regularity and fantasy in many of the composer's works. During our discussions with him, Stockhausen emphasised his abhorrence of uniformity: clothes were not to be uniform, seating should not be in male-female pairs and the order of entry should be likewise irregular. Males have nine models, females eight, thus making 17 for a pair. The work is therefore made up of 51 models (3 x 17). However, while referring in the Introduction to the three sections of the piece, it turns out that there is a subtle non-uniformity: the 51 models are divided into units of 17, 18 and 16.

To analyse the formscheme, let us call the bass voice number 1, and continue upwards so that the first soprano becomes voice number 6. Taking the overtone chord (see Example 1 of the previous article), the (unsung) B flat is the fundamental, the (sung) low B flat the first overtone, F the second, upper B flat the third and D the fourth. Now we label A flat the fifth and C the sixth as the next available overtones (they are of course the seventh and ninth harmonics of the fundamental).⁸ So if we assign a pair of numbers to each of the 51 combinations (to represent the voice leading and the predominant overtone of that voice) we obtain Example 2. Groups printed in bold type represent collections of all available six overtones without repetition, while groups printed in italics are made up of five overtones. Brackets show those areas of the score in which the voices use 'their own' overtone pitches (e.g. the bass, the low B flat; the baritone, the F, and so on). Square brackets over the combination numbers indicate those areas during which the singers are in unison and the 'variations' (note 5 of the score) are executed. Here again there are six groups, of 1, 2, 3, 4, 5 & 6 combinations in length. As can be seen, these reinforce the subdivisions just mentioned. The division after number 35 is not as total as that after number 17. It is more of an interlocking with the '13' in common between the two groups of the six overtones.

Example 2: Analysis of Formscheme

Combination:	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Overtone:	(1 4 5 6 2 3 2) 4 3 5 (1 3 2 5 4 1 6)
Voice:	(1 4 5 6 2 3 2) 6 1 6 (1 3 2 5 4 1 6)
Combination:	18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
Overtone:	2 4 6 1 5 3 (5 4 6) 4 2 3 (6 4 2 5 6)
Voice:	3 1 5 2 4 2 (5 4 6) 4 1 5 (6 4 2 5 6)
Combination:	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
Overtone:	1 3 2 5 6 4 (1 2 3 1 5 3 6 4 3 5) 4
Voice:	1 3 4 2 3 2 (1 2 3 1 5 3 6 4 3 5) 3

There are 51 voice 'combinations' into which the 51 'models' are slotted.

⁸The score uses the term 'overtone' incorrectly! The low (unsung) B flat below the bass staff is the *fundamental*, which may also be termed the first *harmonic* or the first *partial*, but *not* the first *overtone* which is the octave above! All programme notes and some texts have followed this slip, so often that it is now in common speech. It is always better to refer to

'harmonics': the seventh harmonic is seven times the fundamental in frequency, but it is not necessarily the seventh overtone. For a fuller explanation of these relationships see John Backus, *The Acoustical Foundations of Music* (London: John Murray, 1970), p. 96. My numbering of the overtones uses the term correctly.

2: WORDS AND REFERENCES IN THE MODELS

(a) Days of the week are used as the basis for seven models. The English form is used: perhaps because of the rich ‘—(d)ay’ diphthong, although the German and Germanic forms are often spoken. ‘Monday’, ‘Tuesday’, ‘Wednesday’ and ‘Friday’ are in the female singers’ models, the others in the male singers’ models.

(b) There are at least three examples of onomatopoeia (see Example 3).

(c) No magic names may be shouted in those models which include the spoken texts. With one exception, however, these models already *contain* magic names at their root (see Example 4).

(d) Other models (without texts) also contain magic names (see Example 5).

(e) Three other names and two words of praise (one from the East and one from the West) which form the basis of models are shown respectively in Example 6 (i-iii, and iv & v). Interestingly, the words of praise accentuate the same overtones (5/2)!

3: SOME REFERENCES IN THE TEXTS

In ‘Langsamen’ the two sentences ‘Ganz vorne in der Spitze ich . . . in meinem Ein-Mann-Torpedo-Bug’ and ‘Und ich steuere — Himmelfahrtskommando — durch Dein Silberwasser’ refer to the suicide manned warheads that were increasingly used by Germany and Japan in the final stages of the Second World War. The pilot was placed in the tip of the vessel to guide it to its (orgasmic) annihilation.

A clue to ‘Ruselralkrusel . . .’ is to be found in the third volume of Stockhausen’s *Texte*,⁹ where the text is headed ‘Kala Kasesa Bau’. This is a reference to the Trobriand Island ritual¹⁰ in which women were initiated — after a period of instruction from the older women — through an exhausting dance, the audience of which demanded that each show her clitoris. The reference also appears extensively in *Momente*. The form of the poem is a reference to playing with a woman’s pubic hair, and contains monosyllabic allusions to obvious words, to the Trobriand text and to ‘Ka’ and ‘Ma’ which (again elaborated in *Momente*) symbolise ‘Karlheinz’ and ‘Mary’ (Stockhausen’s second wife). The work is dedicated to her, and her surname ‘Bauermeister’ contains the ‘Bau’ of the Trobriand syllables which in turn contain the ‘Ka’ of Karlheinz!

Example 3: *Onomatopoeia*

- | | |
|---|-----------------------------------|
| (i) Doves (‘guru’) and cows (‘muku’) | (Both versions: Bass No. 6) |
| (ii) Screech Owl (‘komit’) | (Both versions: Soprano 1 No. 3) |
| (iii) Horses (‘hoch wiehern wie ein Pferd’) | (Singcircle version: Tenor No. 5) |

Example 4: *Magic Names in ‘Text’ Models*

- | | | |
|-----------------------------|----------------|-------------|
| (i) ‘Pi peri pi pi’ | model contains | ‘Yoni’ |
| (ii) ‘Ruselralkrusel . . .’ | model contains | ‘Oziafu’ |
| (ii) ‘Nimm dich in Acht’ | model contains | ‘Kala’ |
| (iv) ‘Langsamen’ | model contains | ‘Hator’ |
| (v) ‘Meine Hände’ | model contains | (Exception) |

Example 5: *Magic names in Other Models*

- | | |
|-------------------------|---------------------------------------|
| (i) ‘Mulugu/Uvoluvu’ | (Singcircle version: Tenor No. 7) |
| (ii) ‘Vishnu’ | (Singcircle version: Soprano 2 No. 7) |
| (iii) ‘Nemesis/Artemis’ | (Both versions: Baritone No. 7) |
| (iv) ‘Maui’ | (Singcircle version: Soprano 2 No. 4) |

Example 6: *Names and Words of Praise*

- | | |
|----------------|---|
| (i) ‘Phoenix’ | (Singcircle version: Bass No. 7) |
| (ii) ‘Helena’ | (Singcircle version: Bass No. 2) |
| (iii) ‘Maria’ | (Singcircle version: Mezzosoprano No. 6) |
| (iv) ‘Aum’ | (‘Nimm dich . . .’ Singcircle version: Tenor No. 6) |
| (v) ‘Haleluja’ | (Both versions: Bass No. 8) |

⁹Karlheinz Stockhausen, *Texte Band III: zur Musik 1963-70* (Cologne: DuMont Schauberg, 1971), p.360.

¹⁰See Bronislaw Malinowski, *The Sexual Life of Savages in Northwestern Melanesia: an ethnographic account of courtship, marriage and family life among the natives of the Trobriand Island, British New Guinea* (London: Routledge and Kegan Paul, 1929; third edition, 1968).

