

Stockhausen: Sounds in Space

Analysis, explanation and personal impressions of the works of the avant-garde composer Karlheinz Stockhausen.

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KLANG, The 24 Hours of the Day

MIKROPHONIE II

Work No.17: MIKROPHONIE II (MICROPHONY II)
for 12 singers, Hammond organ (or synthesizer), 4 ring modulators, tape (cond., timer)
(1965) [ca. 15']



(Score Front, (© Universal Edition))

Development

After creating a new sound world with a close-miked tam-tam ([MIKROPHONIE I](#)), Stockhausen wanted to develop that idea by adding actual human voices to the tam-tam (Kurtz 1992, 139). Unfortunately this never really worked out, so instead he kept the idea of close-miked voices and used [ring modulators](#) on them instead. The degree of ring modulation was controlled by playing a Hammond B3 organ into the same ring modulators that the vocalists were connected to (as the "difference tones"). The electrical signals from the organ's notes and chords would cause the ring modulator to distort and otherwise transform the sounds of the vocalists. For more about ring modulation see [MIXTUR](#).

Score

The main score has 5 voice parts: Organ, Soprano 1, Soprano 2, Bass 1 and Bass 2. There are also "footnotes" where a tape excerpt of a previous Stockhausen piece ([GESANG DER JÜNGLINGE](#), [CARRÉ](#), or [MOMENTE](#)) is played as a kind of "time-window insert" into the past. The instructions (as seen below) are of the descriptive type. Sometimes a pitch or chord may be mentioned, but the bulk of the vocal instructions are more like "like a baby", "somewhat hoarse, ala jazz", "like drunks, raucous at times", "cool, fast, like plucked basses", "solemn Levitical tone", etc... Other types of instructions include "sing melody groups around a low D sharp in a tonal space limited by your highest and lowest note", or "sing crescendos and decrescendos, synchronously, quick tone-groups with prescribed numbers of notes, with long pauses of different length between the groups". In many cases one member of a choral group leads the others for coordination.

All content here is for educational purposes only and is designed to illuminate and otherwise share the work of the composer/sound artist Karlheinz Stockhausen. Please contact the Stockhausen Foundation for purchasing CDs, DVDs and scores, or visit their website:

www.karlheinzstockhausen.org

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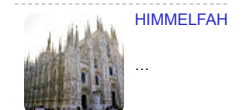
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"This is your pilot speaking..."

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POPULAR

Handwritten musical score excerpt for Moment 18 and 19. The score is written on a grid with various musical notations, including notes, rests, and dynamic markings. It includes instructions for vocal groups (SI, BI, BII) and a section titled "ALLE SYNCHRON flüstern (mit Tonhöhenunterschieden)". The score is dated 1952-1 and is from the WDR Electron Studio Tour (2).

Score excerpt: Moment 18 and 19
(© Universal Edition)

The sung text is from Helmut Heißenbüttel's "nonsense" poem, "Einfache grammatische Meditationen" (*Simple Grammatical Meditations*). A sample of the Heißenbüttel text:

the shadow I cast is the shadow I cast
the situation I've come into is the situation I've come into
the situation I've come into is yes and no
situation my situation my particular situation
groups of groups move over empty spaces
disintegrating reflections and disintegrating mid-afternoons

Robin Maconie describes the use of this text as an expression of isolation and frustration with German audiences. At the time of its premiere Stockhausen wrote "Germany has turned back into a nation of Philistines".

Form Scheme

The work is divided into 33 structures or "moments" (the same number of structures as [MIKROPHONIE I](#)). The text verses are split apart and spread throughout the Moments, and each section has a combination of dueling vocal styles ("attitude"), as described above. The durations of each are based on the Fibonacci series (Frisius 2008). Several times a time-window opens where the singers become more subdued and a fifth loudspeaker plays back a recording excerpt from one of the three pieces mentioned above:

Moment	Voice Attitudes	Time Windows
1	Soprano 1 & 2: high solemn Levite chant Bass 1 & 2: deep voiced speech	
2	S+B: normal speech rhythm whispered	GESANG DER JÜNGLINGS
3	S: Levite chant becomes sexy, seductive S: Like a baby to baroque invention to hoarse B: drunken, belching B: cool jazz/string bass to snobbish	
4	S: old enraged crone B: abusive to exhausted B: Sicilian street hawker	
5	S+B: whispered, vocal click	CARRÉ
6	S: stammering B: resigned	
7	S: normal speech B: irregular military commands	
8	S+B: whispered short syllables	MOMENTE
9	B: sleepy, yawning B: nasal police officer	
10	S: anxious / short chords B: whistling	
11	S+B: whisper	GESANG DER JÜNGLINGS



Stockhausen (Music (1952-1
WDR Electron
Studio Tour (2



GESANG DER JÜNGLINGS



KONTAKTE - Design



GRUPPEN



KLAVIERSTÜ



AUS DEN SIE



The LICHT Su



ETUDE, STUI



KLAVIERSTÜ



PLUS-MINUS

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CARRÉ

12	S: weeping S: deep voice speech B: clicks	
13	S: laughing, hum B: operatic to suddenly cold	
14	S: exhausted (gasping) B: calm as a judge	
15	S: yelling to slightly tipsy B: fast baroque	
16	S: single chords S: birdlike, headtone B: jazzy slow swing in falsetto / whistle	
17	S+B: whisper	<i>CARRÉ</i>
18	S: solemn Levite chant S: stammering B: menacing to frightened	
19	S+B: whispered	<i>MOMENTE</i>
20	S+B: chord to whisper	<i>CARRÉ and GESANG DER JÜNGLINGE</i>
21	S: witch-like B: lightly swinging B: German crooner	<i>CARRÉ and GESANG DER JÜNGLINGE</i>
22	S: dreamily, rocking a baby S: demonic	<i>CARRÉ and GESANG DER JÜNGLINGE</i>
23	S: giggle S: fearful B: whistle B: hoarse call	
24	S: chanting, becoming vamping at the mirror B: typewriter clattering	
25	S: vamp at the mirror B: "Louis Armstrong" B: typewriter clattering	
26	S: "whirring" B: natural speech B: absently	
27	S: quiet whistle B: soft cursing B: Don Cossack Choir	
28	S: asking uncertainly B: calling out B: Don Cossack Choir	
29	S: slow staccato chords ala coloratura soprano S: boisterously cheerful B: bebop jazz B: organ sounds	
30	S: deep voiced speech B: falsetto B: whistle	
31	S: cheerful shouts to unhappy memories S: suggestively, giggling B: chant	
32	S+B: whisper	<i>MOMENTE</i>
33	S: headtone staccato chords B: fast speech	

Live Performance

Twelve singers are divided into 4 groups of 3: Soprano 1, Soprano 2, Bass 1, Bass 2. As seen below, they sit in a semicircle, while a conductor and a time keeper stand in the center, facing the audience. The Hammond B3 is behind and above the conductor, also facing the audience. The organ sound is relatively quiet, since it's volume is projected only by its own internal speaker. As seen in the photo at the top of the page, there are 4 speakers placed behind the organ. A mixer (Stockhausen) mixes the transformed, ring-modulated sound

DIENTAGs GRUSS,
WILLKOMEN, SUKA

JAHRESLAUF

INVASION – EXPLOSION
SYNTHI-FOU

REFRAIN

- ▶ June (4)
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with the natural sounds of the singers. Each vocal trio is mixed separately, so that a ring-modulated Soprano 1 can be simultaneous with a non-transformed Soprano 2 and Bass 1.



(from CD notes (© www.karlheinzstockhausen.org))
Stockhausen, center back.

Sound Impressions

The two main things happening here are the ring modulations and the 33 "scenes". Different voices are distorted to different degrees in different combinations, while various vocal style combinations come one after another. The impression is something like listening to a mixed group of humans and [Daleks](#) do 33 sung stand-up routines on a badly tuned radio, and the "meaningless" text also adds to the feeling of disconnection. The compositional device of self-referential "time windows" would become a running theme throughout Stockhausen's career, and later also be used as "inserts". After MIKROPHONIE II, the fragmentary appearance of prior Stockhausen material would next arise in [PROZESSION](#). The organ is mostly inaudible on the CD except for a chord here or there.

Several reviewers mention that this work is "dark" or "depressing", but I really didn't find it that way, in fact around the 1-minute mark the sopranos seem downright "festive". The different styles of singing keep the pace moving and sometimes the ring modulation distortions are so extreme that it's hard to tell if the source was a soprano or a bass. However, just like MIKROPHONIE I, this piece doesn't seem like music in the normally-accepted sense, but more like a mixed-up radio musical of some sort (complete with Greek chorus).

Links:

[Sound Samples, Track listings and CD ordering](#)

[Score](#)

[Wikipedia](#)

[Sonoloco](#)

[Youtube](#)

Bibliography

LP Notes (Stockhausen)

Works of Karlheinz Stockhausen (Robin Maconie)

The Modulated Subject: Stockhausen's MIKROPHONIE II (Larson Powell)

Compositional techniques in the music of Stockhausen (1951-1970) John Kelsall

Stockhausen: A Biography (Michael Kurtz)

Karlheinz Stockhausen II: Die Werke 1950–1977; Gespräch mit Karlheinz Stockhausen, "Es geht aufwärts" (Rudolf Frisius)



Ed Chang

These blogs function not so much as "web diaries" but more like "online books" I've written (or am writing), with each post being analogous to a book "chapter". The blog projects I work on are typically histories, song breakdowns, synopses, and/or analyses. I've learned a lot while creating these things, and I hope you enjoy them.

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