

## Handout for Gottfried Michael Koenig's *Klangfiguren*

### 1. Koenig Biography

Koenig first studied composition and acoustics at Brunswick Städtische Musikschule (1947–8) and the Nordwestdeutsche Musikakademie before finding interest in electronic sounds while attending summer lectures given by Herbert Eimert in Darmstadt. Koenig would eventually move to Cologne, studying sound processing and composing alongside such luminaries as Stockhausen and Ligeti, before creating (and continuing to develop) his own unique algorithmic compositional formula from the 1960s onwards.

### 2. Studio in Cologne – History

A general aesthetic principle of the music composed in Cologne during Koenig's (as well as Stockhausen, Ligeti, Eimert, and numerous others) seems to be the use of exclusively synthesized sound sources as opposed to the acoustic source material of the *musique concrète* of Schaeffer and Varèse. According to Stockhausen true electronic music itself began in Cologne in the early 1950s with his own *Studie I* making use of the first synthesized sine tones in a musical composition<sup>1</sup>. Koenig's arrival was due to Stockhausen's recommendation and that Koenig aided him in realizing his own *Gesang der Jünglinge* and *Kontakte*<sup>2</sup>.

### 3. Musical Intentions

Ollie Powers describes Koenig's compositional interest in *Klangfiguren* as its non-harmonic spectra. Koenig superimposes multiple sine tones into a composite which are then layered and whose components emerge and decay at differing rates of speed<sup>3</sup>. In order to facilitate the hearing of these composites as singular events and not chords built of separate notes, Koenig uses distortion to eliminate the individual identity of the sine tones, adding upper harmonics and inducing more substantial sonic fusion<sup>4</sup>.

### 4. Descriptive Outline of *Klangfiguren* Segmentation and Details

0<sup>h</sup>– 8" |Intro| Opening gesture. Characterized first by short regular notes in succession, then increased speed and overlap culminating in brief sustained chord that dissolves into silence.

9<sup>h</sup>– 12<sup>h</sup> |Intro cont.| Single long sound followed by noticeable silence.

15<sup>h</sup>– 26" Long pitches that overlap and produce more complex timbres (a composite sound) are introduced here. Silence occurs at 21<sup>h</sup>, preparing an upper register sustained note, followed by a short lower register chord swell, ending in another silence.

---

1 Karlheinz Stockhausen, "The Origins of Electronic Music", *The Musical Times* 112, no. 1541 (July, 1971): 649.

2 Ibid., 650.

3 Ollie Powers, "Interactions Between Composers and Technology in the First Decades of Electronic Music, 1948 – 1968." (PhD diss. Ball State University, 1997): 152.

4 Ibid., 154.

27' – 1'00" Contains considerably longer sustaining sounds than have previously been used. The overlapping envelopes become more dramatic, with sudden note attacks introducing new timbral composites. At 44" a piercing high pitch swells and sustains until 56" The overall "melodic" scheme in this section is that of an upward arch with lower pitched chords growing higher and upper partials being gradually revealed until a sudden low chord attack provides closure, suddenly cutting off the upper register and then fading out.

1'00" – 1'38" Sharp attack sounds are blended with short attacks to produce syncopation at the starts of phrases. Long held notes continue to swell and decay at differing rates, but their durations are dramatically lengthened. The piercing high notes continue to develop and provide a sense of continuity, sustaining concurrently with shorter phrases and gestures. Staccato sine tones (as well as other more complex sounds) begin to appear towards the end of this time region.

1'39" – 1'48" Short chord followed by brief silence, then sustained notes, but with more noticeable internal swelling of sounds. Low register staccato sounds are interjected, and the ends of the long notes are punctuated with syncopated staccato attacks.

1'49" – 2'27" Space is increased between points of attack, creating the impression of less density. Long pitches are allowed to sustain and breath unimpeded, culminating in a pristine upper register pitch that becomes noticeable at 2'08" and disappears at 2'24". This pitch, while ever present seems to fade in and out as activity increases and decreases over the course of its existence. Short sounds are still present though to a less obtrusive degree, and seem smoothed over by the addition of sparing reverb.

2'28" – 3'00" Quicker swells with more abrupt endings appear and are intercut by gaps of silences that frame these shorter gestures. The gestures that initiate this segment are characterized by overall brevity, however, they grow both in length and complexity of sound (with the insertion of shorter and more rhythmic pitches). Individual gestures also have rhythmic variety compared to adjacent (horizontal in time) material, sometimes shorter or longer but not entirely predictable.

3'01" – 3'38" |Climax| Lower register is introduced with more complex overtones and greater dissonance and reverb trails color the opening sonority. The chords and composite sounds (the distinction becomes murky here) are much denser horizontally and vertically. This section also builds (as occurred previously) in an overall upward arch, introducing low sounds and then removing them to reveal the upper register in relative isolation. A staccato sound concludes the long held pitches at the end of this section (continuing what I surmise as a cadential habit).

3'41" – 4'02" |Coda| A brief recap on compositional ideas that have already been previously expounded, though represented in this highly condensed window. Dramatic volume swells over chords produce a faux-vibrato, with the overlapping of sounds occurring in more rapid succession than previously. As in the very introduction, a relatively simple sound (followed by decay) introduces the section. Rather than concluding with a staccato note, as Koenig has done many times in the piece, he allows the final sonority to simply fade away.