The Modulated Subject: Stockhausen's *Mikrophonie II*

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I. Environment as *Verfransung*

The first "happenings" of Allan Kaprow in 1958-59 were roughly contemporary with his "environments," and followed closely on the period of John Cage's teaching at the New School for Social Research (1956-58). Kaprow consulted with Cage on "how to include tape-machines" and eventually added "electronic sounds from loudspeakers" to the second version of his "Untitled Environment/Beauty Parlor."[1] This specific coupling to electronic media was noted by Theodor Adorno a few years later (1967) in "Die Kunst und die Künste,"[2] where he suggested that developments in contemporary art were leading to what he called a "Verfransung" of once-distinct media, genres and arts. *Verfransung* is an ambiguous term, which might be translated as "erosion of boundaries," "fraying" or even getting lost (*sich verfransen*). Accordingly, Adorno's diagnosis is a cautious one, suggesting both that *Verfransung* was bound up to the technicizing of art and also that "the erosion (*Verfransung*) of artistic genres almost always accompanies a reaching of form after extra-aesthetic reality"[3]—in other words, an avant-gardist sublation of art into life. This was certainly the case with Kaprow's environments and happenings, as for the soundscape projects of R. Murray Schafer and others from the later 1960s onward.[4] It might also appear to hold true for the work of Stockhausen from the early 1960s, especially his Fluxus-influenced theater piece *Originale* from 1961 and his following live electronic works *Mikrophonie I* and *II*. Yet as will become clear from the following discussion of Stockhausen, there are important differences between his conception of musical event and the much better-known one of Cage. An examination of one of Stockhausen's most theatrical pieces from the 1960s, the live electronic vocal work *Mikrophonie II,* will show that Adorno's *Verfransung* did not mean simply a late-modern updating of the Wagnerian *Gesamtkunstwerk,* wherein all the arts would merge in the blur of a total "performance." On the contrary, the piece shows very specific *tensions between the arts*, most particularly between music and literature, as well as a specific dependency on one of the older electronic media, namely radio. To work this out, what follows will first discuss the aesthetics of Concrete Poetry (Part II), then Stockhausen's treatment of the poetry seen in historical context (Part III), then venturing a theoretical model for this treatment (Part IV), and finally viewing *Mikrophonie II* as a musical metacritique both of Concrete Poetry and of the happening, coupled to the medium of radio (Part V).

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[1] Richard Kostelanetz, *The Theatre of Mixed Means* (New York: Dial Press, 1968), p. 105. For a historical overview of this with references, see Thomas Dreher, *Performance Art nach 1945* (Munich: Fink Verlag, 2001), pp. 85-162.

[2] *Ohne Leitbild. Parva Aesthetica,* now in Theodor Wiesegrund Adorno *Gesammelte Schriften* (Frankfurt: Suhrkamp Verlag, 1997) 10:1, pp. 432-453. (Henceforth referred to as *GS.*)

[3] "Die Kunst und die Künste," p. 450.

[4] On these, see Simon Emmerson, *Living Electronic Music* (Aldershot: Ashgate Publishing Group, 2007), p. 9.

II. Words, Music, and the Aporias of Concretion

In the decade after 1945, the hermeneutical marriage between word and song, one of the central achievements of the nineteenth century, finally came apart. Already Igor Stravinsky's deliberate violence to prosodic rhythms, the wide intervals of Anton Webern's songs and Arnold Schönberg's introduction of *Sprechstimme* indicate a split between *melos* and word; and post-1945 literature's turn away from the Romantic and early Modernist poetics of metaphor and metalanguage—exemplified in Alain Robbe-Grillet's polemical refusal of "nature, humanism, tragedy," the master-signifiers or metaphors of the 19th century—closed off to many composers the suggestive horizon of semantic meaning typical of older text-setting practices.[5] Stockhausen's drastic treatment of speech in his 1956 electronic composition *Gesang der Jünglinge* had already been part of this shift. In *Gesang*, words are reduced to phonetic raw material to be subjected to rigorous musical permutation and variation. In this, the composer realized a project dear to the heart of many practitioners of Concrete Poetry, Franz Mon and Helmut Heissenbüttel among them.

Gesang der Jünglinge, the "Song of the Youths in the Fiery Furnace," was however anything but modern in its choice of text from the Bible. It was not until nearly ten years later, in the mid-1960s, that the composer would turn to a text from Concrete Poetry for his own music. In the meantime, he had already composed the theatrical performance piece *Originale* (1961), corresponding to a larger shift from the abstract High Modernism of the 1950s, with its emphasis on structure and anonymity, to the neo-Dadaism of the 1960s, with its theater pieces and Situationist "happenings."

Mikrophonie II clearly participates in this theatricality of the 1960s. The work was written for West German Radio in Cologne, and its first performance was a live broadcast on June 11, 1965. Generically it is difficult to classify, being neither a miniature opera nor a cantata. This generic slipperiness is a feature shared with radio's chief literary offspring, the *Hörspiel* or radio play, to which many Concretists contributed.[6] Let us first look more closely at the relation of Stockhausen's piece to its text, drawn from Heissenbüttel's "Einfache grammatische Meditationen" (1955), published in 1960 as part of *Textbuch I*.[7]

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[5] A survey of this process is in Wilfried Gruhn, "Musikalische Sprachartikulation seit Schönbergs *Pierrot Lunaire*," in Günter Schnitzler, ed., *Dichtung und Musik: Kaleidoskop ihrer Beziehungen* (Stuttgart: Klett-Cotta Verlag, 1979), pp. 265-280. This is obviously a vast topic that can only be touched on here, and many tendencies contributed to the split, including the medium-specific argument typical of many apologists for modernism (on which, see Daniel Albright, *Untwisting the Serpent: Modernism in Music, Literature and the Other Arts* [Chicago: University of Chicago Press, 2000], chapter 1). As Lawrence Kramer put it: "The avant-garde composers who came to maturity after the Second World War have at times been openly, even extravagantly, antitextual" (*Music and Poetry* [Berkeley: University of California Press, 1984], p. 168). The present approach is less skeptical about such "antitextuality" than Kramer.

[6] On the relation of radio play and electronic music, see Mark Cory and Barbara Haggh, "*Hörspiel* as Music: The Creative Dialogue between Experimental Radio Drama and Avant-Garde Music." *German Studies Review* 4 (1991), pp. 257-279.

[7] Walter-Verlag, Olten and Freiburg-i.B., 1960.

It is difficult to imagine a text less obviously suited to musical setting, indeed, more opposed to any sort of hermeneutical horizon of meaning, than Heissenbüttel's "meditations." Here is a brief quote:

> 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 surfaces[8]

The aim of the text is the pursuit of a kind of *degré zéro de l'écriture*, as Roland Barthes had described it in the context of the *nouveau roman*, a literary paradigm which also sought to minimize subjective intentionality and expressivity. Here Heissenbüttel's literary practice of the mid-1950s seems in step with then-contemporary post-Webernist musical attempts to distill out a "pure" syntax, free of the contaminations of merely individual subjective intentionality. To quote Heissenbüttel himself:

> The search for the linguistically methodical [*sprachlich Methodischem*] [...] leads away
> from the subjective and normally binding to the anonymous and collective.[9]

One of the ways in which Heissenbüttel sought to eliminate subjective intentionality from his language was to elide punctuation marks, according to Adorno one of the most musical aspects of discursive language, an area where rhetoric and performativity are most evident.[10] Yet there is something Sisyphean and unconvincing about this elision, as there is in Heissenbüttel's attempt to keep "the linguistic material exemplary" through the elimination of metaphorical "imagination," so that it is "not representative and not symbolic of any context of meaning."[11] Poetry, like all language, "is a concrete speech act, and speech acts are context bound, anchored in history and culture."[12] Thus Heissenbüttel's "attempt to 'fix' through language fails because it can only produce tautological statements; such a language sets up a world and then presumes to talk about *the* world when it is only talking about itself."[13] The concretion of Concrete Poetry is a claim that proved hard to back up, as a retrospective (or obituary) by Siegfried Schmidt explained.[14] In this, Concrete Poetry resembles *musique concrète*, the radio-bound cut-and-paste collage experiments of Pierre Schaeffer in Paris studios in the late 1940s, or the French Lettrist movement of the '40s and '50s.[15] Both had affinities not only

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[8] *Ibid.*, p. 35.

[9] Heissenbüttel, "Ich schreibe nicht weil," *Theoretische Positionen zur konkreten Poesie*, ed. T. Kopferman (Tübingen: Max Niemeyer Verlag, 1974), p. 27.

[10] Adorno, "Satzzeichen," *Noten zur Literatur, GS* 11, p. 107.

[11] Heissenbüttel, *Über Literatur* (Olten: Walter Verlag, 1966), p. 235; see Ted Gundel's discussion, "The Double Articulation of Experimental Writing," *MLN* 96 (1981), pp. 580-603, esp. p. 590.

[12] Gundel, p. 602.

[13] *Ibid.,* p. 594.

[14] "Perspectives on the Development of Post-Concrete Poetry," *Poetics Today,* vol. 3 no.3 (Summer 1982), pp. 101-136. Schmidt specifically points to problems in Concretism's self-definition, not only its practice. See also Adorno's comments on H.G. Helms in "Voraussetzungen," *Noten zur Literatur III* (*Gesammelte Schriften* [Frankfurt: Suhrkamp Verlag 1997] vol. 11, pp. 431-446).

[15] Robin Maconie has compared Lettrism to *musique concrète* (*Other Planets: The Music of Karlheinz Stockhausen* [Lanham: Scarecrow Press, 2005], p. 167).

to information theory, but also to Husserlian phenomenology, with its central notion of an "eidetic reduction" or bracketing out (*ēpochē*) of context.[16] The result is that much Concrete Poetry "degenerated into mere decorativeness," into a form of applied art.[17] This is a problem shared by many neo-Modernists, such as the Fluxus group, after 1945, and has been analyzed by Benjamin Buchlow and Andreas Huyssen.[18] It is not only that the shock of the New was not one that could be repeated at will, but that there were specific technical and medial reasons for this. This is apparent now in rereading Heissenbüttel's text, with its oddly hesitant oscillation between a literary mimesis of painting—typographic arrangement on the page, the overt naming of painterly and geometric terms in order to "spatialize" language—and one of music—repetition, variation.[19] These two models, music and painting, are in fact deeply contradictory. Modernism's *Verfransung* turns out, as Adorno saw,[20] to be one of an increased *disassociation* of the media Richard Wagner once thought to bring together in synaesthetic unity. This contradiction is most palpable in Heissenbüttel's use of repetition: at once stubbornly literal, tautological, thus anti-hermeneutical, anti-metaphorical: *the shadow that I cast is the shadow that I cast*, recalling Gertrude Stein's *A rose is a rose is a rose*. At the same time, however, the repetitions of Heissenbüttel's text cannot help bringing back the specter of the very horizon of musical (semantic) meaning their literality would rather exorcise. Reading and writing are always situated at once on the surface of the paper *and also beyond*,[21] "elsewhere," in a surplus of meaning and intent which 1960s semiotics and post-structuralism would rediscover. As Stéphane Mallarmé knew, a rose is never merely a rose.

III. Radiophonic Music as Performance

As noted, Heissenbüttel's text is as "un-musical," as anti-lyrical as one could imagine: its deliberate impersonality would forbid any sort of expressive-melodic setting.

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[16] Brian Kane has linked Pierre Schaeffer's acousmatic reduction to Husserl ("*L'Objet Sonore Maintenant*: Pierre Schaeffer, Sound Objects and the Phenomenological Reduction, *Organised Sound* 12: 1 (2007), pp. 15-24. The variations of phrase in the Heissenbüttel quote could be compared to Husserl's "imaginative free variation" (Kane, p. 19).

[17] Schmidt, p. 119. The same point was made by Adorno about postwar "constructivism" (*Ästhetische Theorie, GS* 7, p. 92).

[18] Buchlow, "The Primary Colors for the Second Time: A Paradigm Repetition of the Neo-Avant Garde," *October* 37 (Summer 1986), pp. 41-52; "Conceptual Art 1962-1969: From the Aesthetic of Administration to the Critique of Institutions," *October* 55 (Winter 1990), pp. 105-143; Huyssen, *Twilight Memories* (NY: Routledge, 1995).

[19] This oscillation is reproduced in some interpreters of Heissenbüttel, as for instance Günter Peters ("Meditations Modulated: H. Heissenbüttel's *Einfache grammatische Meditationen* in Stockhausen's *Mikrophonie II*," *German Literature and Music: An Aesthetic Fusion 1890-1989*, ed. Claus Reschke and Howard Pollock [Munchen: Fink Verlag, 1992], pp. 247-261, esp. p. 252).

[20] See "Über einige Relationen zwischen Musik und Malerei" (1965), now in *GS* 16, pp. 628-642.

[21] This impossibility of completely eliding the subject is an aporia the second generation of French New Novelists would detect in Robbe-Grillet. As first Francis Ponge and then the young Philippe Sollers would discover, the "zero-degree" project of writing nothing more than the surface of appearances is impossible, and resulted in nothing more than a reproduction of the dictionary (Sollers, "Sept propositions sur Alain Robbe-Grillet," *L'Intermédiaire* [Paris: Seuil 1963], p. 150). Peter Weiss grappled with the same problem in his early *Der Schatten des Körpers des Kutschers* (Frankfurt: Suhrkamp Verlag, 1964). This criticism is very much applicable to Heissenbüttel as well.

Stockhausen notes thus in his notes to the piece that he "used" (*verwendete*) the text, rather than setting (*vertonen*) it, although there are moments such as the phrase "hesitating diagonals" (page 9 of the score, with a falling scale), that recall older text-setting techniques. There is little attempt on the composer's part to match the rhythms of the text (such as its repetitions of words like "shadow").[22]   His usage freely permutes the order of Heissenbüttel's published text, mixing up its different sections. The score, in accordance with a poetics of chance that may have been influenced by Cage, but also grew logically out of Stockhausen's own independent electronic researches into acoustics and sound, is less a fully worked out text than a rough blueprint or "flow chart" for a largely improvised performance. Although the larger order of musical events or "moments" is fixed, the detailed outline of what is to be sung by the chorus is left open. The score hardly specifies any melodic shapes at all.[23]   Instead it sets out for each separate moment—corresponding to a line of Heissenbüttel's text—a chord or a few pitches around which the singers are to invent their own ornaments, roughly coordinating their improvisation with each other in a group. (In this Stockhausen has some similarities to the practice of Chicago free jazz, since his requested improvisations are not bound to bar line or to any tonal harmonic skeleton.)[24]

   More importantly, though, is that despite the absence of any melodic line, or even of any specified rhythms, Stockhausen nonetheless envelops Heissenbüttel's text with a wide range of performance markings—that is, with *precisely the sort of rhetorical "punctuation" Heissenbüttel's text had sought to elide*.[25]   These markings are so individualizing and characteristic as to be parodic, even downright silly. Here are a few examples of the ways in which Stockhausen's singers are instructed to perform:

   solemn priestly tone [*feierlicher Levitenton*]
   like a baby

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[22] In the terms of Lawrence Kramer (*Music and Poetry,* p. 10), the poem and the composition do *not* "converge on a structural rhythm." The Fibonacci series on which Stockhausen's form is based has no relationship to Heissenbüttel's poem.

[23] There is one important exception in the second group of basses near the end, at moment 29, where each pitch of an eight-note line is marked with a fermata, to be sung one pitch to a breath—a technique clearly taken over from Boulez' second *Improvisation sur Mallarmé* (1957). Earlier compositional sketches specified details of rhythm and pitch much more than the final published and performed score, but the composer found the details impracticable to play—thus giving the lie to those who think this music is only *Augenmusik* or academically unconcerned with practical realization.

[24] Amy Beal has discussed the "parallel situation" between aleatory music and free jazz in the 1960s; see *New Music, New Allies: American Experimental Music in West Germany from the Zero Hour to Reunification* (Berkeley: University of California Press, 2006), p. 166. George Lewis ("Improvised Music after 1950: Afrological and Eurological Perspectives," *Black Music Research Journal* 16: 1 [Spring 1996], pp. 91-122) has argued for a systematic denial of debts to jazz improvisation on the part of what he calls "Eurological" composers (particularly Cage), yet also notes (p. 116) that "performer choice and 'intuition' systems, as promulgated by Stockhausen and other Eurological composers, do indeed turn out to be somewhat different from improvisation" in jazz, owing to the lack of training in improvisation in the European tradition. The jazz musician and composer who has most extensively referred to Stockhausen's influence is Anthony Braxton.

[25] As Peter Andraschke noted, these "Vortragsarten" "führen dem Text eine neue, *in ihm nicht enthaltene und von ihm unabhängige Ausdrucksschicht* zu" [performance indications... bring to the text a new level of *expression not contained in it and independent of it*] ("Elektronische Musik und Sprache," in Schnitzler, *Dichtung und Musik,* pp. 281-392, p. 289, emphasis added).

like drunks, with hiccups
à la Jazz, cool, like acoustic basses—gradually becoming like an affected snob
like a crazy old toothless woman, raging
like a Sicilian vendor, strained in the throat[26]

As is evident, these markings have nothing to do with the sublimated dance and aria characters that became sedimented into traditional music's Allegro, Andante, and Adagio.[27] Yet they have the effect of bringing back precisely that characteristic subjectivity which the *écriture blanche* of Heissenbüttel wanted to eliminate. This return of the characteristic is not only a bit of neo-Dadaist theatricality, either. Rather it resulted from Stockhausen's investigations of acoustic phenomena in the works leading up to *Mikrophonie II*. In the preceding *Mikrophonie I* for tam-tam, microphones, and filters, the composer discovered that he could not describe the new sounds he discovered by irritating the surface of a tam-tam except through descriptive and even onomatopoetic names. He had paradoxically to return to the concrete language of phonetics, of the human voice, to describe the abstract noises produced by amplified sounds.[28] In other words, he could only describe the sounds as actions.

This modification of Heissenbüttel's text through performance is extended by the piece's electronic technology. The choral singers' voices are ring-modulated through an electronic loudspeaker system, together with the sounds of a Hammond B3 organ, an instrument which, once widely used not only in churches, but also in gospel, blues and jazz, today gives Stockhausen's piece something of a historical signature. The extreme, caricatured Expressionism of the performance markings, together with this electronic distortion, means that the listener frequently cannot understand Heissenbüttel's text at all. What one hears is pure performance: character, attitude or gesture independent of any hermeneutical substratum, whether of text or of melody. The pragmatics of musical performance, the *how*, has swallowed up the ostensible content or substance, the *what*.

There are a number of ways to make sense of this today. Firstly: the shift in Stockhausen's music, and shared by many other composers of the time, from a concern with pure structure in the 1950s to pragmatics and performance in the 1960s, paralleled the emergence of J. L. Austin's speech act theory. *How To Do Things With Words*, posthumously published in 1962, predates Stockhausen's piece by only three years. Noam Chomsky was working out his own notions of competence and performance at roughly the same time, thereby implicitly criticizing Ferdinand de Saussure's model of *langue* which had been so important to 1950s Structuralism.[29] Jacques Lacan, too, was moving away from his 1950s fascination with Turing machines and the subjectless Symbolic toward the new theory of Imaginary psychoanalytical subjectivity of the *Four*

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[26] Stockhausen, Nr. 17: *Mikrophonie II* (London: Universal Edition, 1974).

[27] For the history of how tempo and expressive markings evolved from the 18th century on, see Peter Tenhaef, *Studien zur Vortragsbezeichnung in der Musik des 19. Jahrhunderts* (Kassel: Bärenreiter Verlag, 1983).

[28] The problem is described in *Stockhausen on Music,* ed. Robin Maconie (London: Marion Boyars Publishers, 1989), pp. 82-84.

[29] Crucial moments here are Chomsky's insistence that language is not merely built up onto higher levels from the more elementary ones of phonology and morphology (*Syntactic Structures*, ['S-Gravenhage: Mouton, 1957], p. 58) and his critique of the idea of "context-free grammar" (*Aspects of the Theory of Syntax*, [Cambridge: MIT, 1965], p. 61). Although Chomsky himself believed language had biological bases, this aspect of his thinking has been often challenged (by, among others, Jean Piaget).

Fundamental Concepts. The newly recovered expressivity of Stockhausen's comic-*buffa* indications to sing "like a drunk" or "a flabbergasted and raging old woman" are symptomatic of a larger paradigm shift in both the arts and philosophy away from abstract structure to contextualized performance.

Secondly: this shift must be correlated with the material history of electronic communications. Paradoxically, at the time of *Mikrophonie II,* a shift in funding from the West German government was underway from radio to television, which would eventually modify the structural coupling between postwar music, radio, and the state— and foster the beginnings of New German Cinema.[30] It is thus hard to follow Friedrich Kittler's model of a cultural and artistic history powered by technological invention here, since Stockhausen's faithfulness to radio has a retrospective dimension to it. The public split between Stockhausen and the Fluxus group centered around George Maciunas, evident already at the 1964 New York performance of *Originale,*[31] could be seen as one between a theatrical "happening" aesthetic linked to television and Stockhausen's ongoing engagement with radio. For Stockhausen's musical compositions of this time *are not neo-avant-garde* in the manner of Fluxus; they do not engage in the old avant-garde frontal attack on the institution of art.[32]

Nonetheless, the anti-hermeneutical eclipse of textual and melodic meaning already mentioned may be linked to the role of radio and microphone technology in electronic music.[33]   The effect of media may be summed up as a de-symbolizing of the "Real," of real noises, blotches, and un-linguistic *Gestalten* that media technology was able to record and disseminate without having to pass through the symbolic.[34] Alternately, one could see media as converting even the traditionally more script-based arts such as music and literature into "imaginary signifiers" like film, for which last, as Christian Metz has noted, there exists no *langue* in Saussure's sense. Film "possesses a grammar, up to a point, but no vocabulary,"[35] that is, no lexicon, no dictionary. Stockhausen's piece, with its deliberate open-endedness, its ironic self-reflections on performance, and its quotes from the composer's own earlier works, becomes a form of *metamusic*, an attempt, in the composer's own words, to "compose the act of composing."[36] *Mikrophonie II*, written to be broadcast on West German radio, is already

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[30] Radio did continue to play an important role in Germany, especially in the *Neues Hörspiel* of the later 1960s and 1970s (see Reinhard Döhl, *Das neue Hörspiel,* [Darmstadt: Wissenschaftliche Buchgesellschaft, 1988]).

[31] See Dreher, p. 357 n. 578 for references on this.

[32] This is a constant theme in the composer's own writings: he is not interested in simplistic "Anti-Positionen" (*Texte 3* [Cologne: DuMont Schauberg, 1971], p. 36, does not want to destroy the past (83), nor is he interested in shock effects for their own sake (p. 59) or believe that older musics and technologies are "used up" (p. 59). (See also *Texte 2* [Cologne: DuMont Schauberg, 1964], pp. 133-134.) Thus Stockhausen had at this point already left the old linear historical model of the neo-avant-garde behind him.

[33] For a look at the effects of this on literature, see Klaus Schenk, *Medienpoesie: Moderne Lyrik zwischen Stimme und Schrift* (Stuttgart/Weimar: Metzler, 2000), esp. p. 195, "Das artikulierte Geräusch."

[34] On this, see Friedrich Kittler, *Drakulas Vermächtnis*, (Leipzig: Reclam, 1993). Heissenbüttel himself had noted this same phenomenon already in 1965 ("Kurze Theorie der künstlerischen Grenzüberschreitung," in *Theoretische Positionen zur konkreten Poesie*, pp. 21-26).

[35] Metz, *The Imaginary Signifier,* tr. Britton, Williams, Brewster and Guzzetti [Bloomington: IUP, 1982], p. 213. Peter Faltin has made the same claim for music ("Ist Musik eine Sprache?" in *Die Zeichen. Neue Aspekte der musikalischen Ästhetik, II*, ed. H.-W. Henze [Frankfurt: Fischer 1981], pp. 32-50, esp. p. 49).

[36] Karl Wörner, *Stockhausen: Life and Work*, tr. Bill Hopkins [Berkeley: U Calif. Press, 1976], p. 52.

a reflection on the effect of radio on music itself. Its electronic distortions anticipate the noisy channels and distortions of radio by building them into the composition in advance. The resulting reification of sound realizes a mechanizing tendency Adorno had seen at work already in Wagner, and found again in the typically buzzing interference-sound of jazz.[37] In popular music, this sound is associated with the electric guitar's feedback and pedal distortions, a practice that could be traced back as far as the "growl and plunger" style of brass players in Duke Ellington's band, and was then used by Willie Johnson and Chuck Berry in the 1950s.[38]

IV. The Medium of the Real

How can one understand the difference between Stockhausen and the performance or happening aesthetic of Fluxus and Kaprow with which this essay began? *Originale*, where he seemed briefly close to that aesthetic, proved to be something of an exception within his work. To see why this was so requires looking further into the problem of the relation of performativity to electronic media. Just as the present analysis has shown how Concrete Poetry ran into performative problems in its project of purely spatialized, de-signified writing, so the Fluxus group's aesthetic of the happening could never break through into the pure act it imagined.[39] The reasons for this are tied up with the limits of speech act theories themselves. Attempts at applying the speech act theories of Austin and Searle to the aesthetic domain have run into severe difficulties with Austin's own insistence on the sincerity necessary to speech acts to make them operative.[40] It is clear that the use of language in most forms of art is anything but sincere in Austin's sense.

One convincing solution to this problem of how to apply speech-act theory came from Shoshana Felman, whose *Le Scandale du corps parlant* offered interesting reflections on the well-known conjunction between Austin and Lacan. Felman noted that for Lacan, the unconscious reveals the "law by which the utterance (*l'énonciation*) will never be reduced to the statement (*l'énoncé*) of any discourse."[41] What Lacan calls here utterance is Austin's "illocutionary force."[42] It is precisely this illocutionary and performative element which Heissenbüttel's 1955 text, with its accent on the impersonal and anonymous validity of the statement, had sought to minimize, and which Stockhausen's comical 1965 setting brings back with such vehemence.

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[37] Adorno, *Versuch über Wagner*, *GS* 13, pp. 70-71 and pp. 76-77; also "Über Jazz," *GS* 17, pp. 75-76 and pp. 105-106. Kittler describes this phenomenon ("Weltatem," in *Diskursanalysen I: Medien*, ed. F. Kittler, M. Schneider, and S. Weber [Opladen: Westdeutscher Verlag 1987], pp. 94-107) summarily as sheer "sound."

[38] See chapter 2, "The Fuzz," in Michael Hicks, *Sixties Rock: Garage, Psychedelic and Other Satisfactions* (Urbana: University of Illinois Press, 2000[2]); thanks to Harry Berger for this reference.

[39] For a philosophical argument as to why this was so, see now Alice Lagaay, *Metaphysics of Performance* (Berlin: Logos, 2000), esp. p. 103: "successful performativity requires a certain acknowledgement of competence," without which "we would be stuck in blind, directionless action."

[40] Much of the relevant literature may be found in Sandy Petrey, *Speech Acts and Literary Theory* (London: Routledge, 1991); for a critical look back at speech act theory after the Derrida-Searle controversy, see Jacqueline Henkel, *The Language of Criticism* (Ithaca: Cornell, 1996).

[41] Felman, *Le Scandale du corps parlant* (Paris: Seuil, 1980), p. 105; cf. Lacan, *Écrits*, Paris: Seuil, 1966), p. 892.

[42] Austin, *How To Do Things With Words* (Cambridge: Harvard, 1962), p. 100.

We can state this even more strongly. Lacan's use of illocutionary force turns that of Austin quite neatly on its head. The unconscious is that which always says more and other than the ostensible conscious intention of the statement—to which the ego is bound in imaginary identification—would have liked. What results from this misrelation, this misfire between intent and realization, between subject and language, is something very real, as Austin's idea of performativity recognized. The difference is that in Lacan, that real result is a *failure* of what the subject intended.

> What characterizes the relation between the signified and…the referent, is precisely that the signified missed the referent. The joiner doesn't work…It fails. That is objective… The failure is the object.[43]

This misrelation between intent and language, subject and statement, is however not merely a blank, a negative. Nor need it, *à la* Derrida, point to some ultimate impossibility of the metaphysics of presence. Rather it reveals the Real as being precisely what evades the enclosure of language. In *The Four Fundamental Concepts of Psychoanalysis*, Lacan defines the Real as "that which the subject is condemned to miss, but which this missing itself reveals."[44]

If this definition seems portentously abstract, it may be given more specificity by relating it to the experimental pragmatism of Stockhausen's work of the 1960s. Robin Maconie's detailed discussions of these pieces tie their "visionary recklessness" to the composer's risky "plunge into ring modulation."[45] Lacan's "miss" between language and the unsymbolized can thus be linked to the problem of how to contain the noisy roughness of ring-modulated sound in a meaningful structure. There are a number of ways to explore further the relation of postwar musical modernity to the Real in Lacan's sense. Firstly: the way in which Stockhausen's ring-modulated electronic apparatus tends to strip the singing or speaking voice of its communicative articulation would suggest that his composition is working to uncover a raw material of the "Voice," the voice understood as pre-signifying. This could be correlated with what Barthes called "the grain of the voice," or what commentators on opera have seen as a primary vocality, prior to symbolic language and meaning.[46]

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[43] Lacan, *Encore* (Paris: Seuil 1975), pp. 23, 55; Eng. tr. Bruce Fink (New York: Norton, 1998), pp. 20, 58; Felman's commentary, p. 112.

[44] *Les Quatre Concepts fondamentaux de la psychanalyse* (Paris: Seuil, 1973), p. 39. Lacan is still, apart from Slavoj Zizek's essays on Wagner, unfamiliar terrain in musicology: among recent work referring to him is David Schwartz, *Listening Subjects: Music, Psychoanalysis, Culture* (Durham: Duke University Press, 1997), esp. pp. 7-22, "Music as sonorous envelope and acoustic mirror," cognate to the present essay; also Bert Olivier, "Lacan and Critical Musicology," *International Review of the Aesthetics and Sociology of Music*, 36, no. 1 (June 2005): 135-158.

[45] Maconie, *Other Planets,* p. 259; see also the pertinent comments on *Gesang der Jünglinge* on p. 170.

[46] Barthes, *L'Obvie et l'obtus* (Paris: Seuil, 1982); see in English, "The Grain of the Voice," in *Image/Music/Text*, trans. Stephen Heath (New York: Hill and Wang, 1977), pp. 179-189. Also Mladen Dolar, "The Object Voice," in R. Salecl and S. Zizek, eds., *Gaze and Voice as Love Objects* (Durham and London: Duke, 1996), pp. 7-31; Guy Rosolato, "La Voix: entre corps et langage," *Revue française de psychanalyse,* Vol. 38, no. 1 (1974), pp. 75-94. Many of these discussions have referred to Kristeva's idea of the semiotic, linked to the maternal body; see Julia Kristeva, *Revolution in Poetic Language*, translated by Margaret Waller (New York: Columbia University Press, 1984), especially Part I, "The Semiotic and the Symbolic," pp. 19-106.

Secondly: art criticism has spoken of late-modern visual art as occupied with a "return to the real," an attempt to shift "from reality as an effect of representation to the real as a thing of trauma."[47] If art critics have seen this shift to the unmediated Real in art and photography from the 1960s onward, it would seem reasonable to see a cognate moment at work in music as well (without necessarily blurring all the arts together in the old manner of a *grand récit*). In the case of Stockhausen, the trauma in question has very specific historical origins in the Second World War; his aesthetic response to this may be compared to that of other German artists of the time.

As noted, the most immediately striking aspect of Stockhausen's piece is the way in which it swallows the listener in a flood of unfamiliar electronically modulated sound, into the paradoxical "interior" of a machine that transforms the sounds of human voices and electric organ often beyond recognition. The affects experienced by the listener are ambivalent ones, as in all aesthetic modernity: at once the pleasure of a partially "regressive" de-sublimation and anxiety at the loosening of the ego's normal control. One of the most frequent markings Stockhausen gives his singers is to sing with an affect of *Angst* (moments 10, 18, and 23).

In the still-untranslated seventeenth *Seminar, L'Envers de la psychanalyse,* Lacan spoke of a new phenomenon where the discoveries of science and its technical applications impinge directly on one's daily perception: namely the "discovery" by scientific instruments of the earth's enclosure in a virtual sphere of electromagnetic radiation or Hertzian radio waves. Lacan termed this sphere, in a typical ironic pun on Martin Heidegger's concept of *aletheia* (truth), the *alethosphere* or "sphere of truth." Anyone with a microphone, said Lacan, can switch on or tune in to this sphere of broadcasts and transmissions.[48] This sphere of chaotic white noise and mixed signals is at once real and beyond human perception, at least unaided by mechanical means. It is just this sphere that Stockhausen's later "intuitive music" of the end of the 1960s would exploit, using random live radio transmissions as raw material for controlled improvisation and as a metaphor for a collective consciousness (cf. *Kurzwellen*, 1968).

The very same scientific technology, however, has discovered a very different location for that sound sphere: namely in the "sound bath" in which infants are immersed in the first months of their existence. Within this sound-envelope or sound-bath, the infant begins to form "feedback loops with the environment" which are "audio-phonological in nature" and pre-date either the formation of clear visual perceptions or of language.[49]

The deployment of electronic microphone and modulating technology in Stockhausen's piece, the way in which this technology is used to de-signify or estrange the voice and open up its internal harmonic and spectral overtone structure to the ear, has the effect *both* of rendering audible something of Lacan's "alethosphere" of electromagnetic radiation *and* of placing the listener in another kind of "sound-bath." The relationship of these two forms of sound-envelope is what is revealed by Stockhausen's work. The voices of the choral singers in the piece are quite often reduced

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[47] Hal Foster, *The Return of the Real* (Cambridge: MIT Press, 1996), p. 146; see also pp. 134 (on Barthes' *punctum*) and 156 (on Kristeva's idea of the "abject").
[48] Lacan, *Seminaire XVII: L'Envers de la psychanalyse* (Paris: Editions du Seuil, 1991), pp. 187-188.
[49] Didier Anzieu, *The Skin Ego*, trans. C. Turner (New Haven and London: Yale University Press, 1989), p. 165.

to a literally meaningless babble not very far from the babbling by which an infant surrounds itself. And the technical medium of the piece is itself kin to a feedback circuit, namely the ring-modulator that combines the input sounds of the organ and the voice into a new and quite distinct output.[50] In each of his works from the 1960s, Stockhausen would create a new sonic environment, going beyond older ideas of "scoring" and instrumentation to compose the space of hearing itself. We may conclude by contrasting his conception of sound environment once more with that of Concretism.

V. Sound as Action

One of the aims of Concrete Poetry was, as noted, the negation of older "magical-lyrical" models of poetic speech[51] in favor of an anti-tragic, anti-solitary emphasis on the functionality of communication and information, however ironized this last may sometimes have been by absurdism or neo-Dadaism. Instead of this, the Concretists wanted, in Eugen Gomringer's words, to "place the language-shaper [*Sprachgestalter*] in the team of the international shapers [*Gestalter*]," and thereby to join hands with

> environment-shaping or -influencing forces [*umweltbildende oder umweltbeeinflussende Kräfte*] like industry, product management and structure, consumption and advertising, industrial design, architecture, urban planning, infrastructure etc.[52]

The "concreteness" of Concrete Poetry consisted precisely in this rejection of expressive-intentional inwardness, in the emphasis placed on construction and planning, in the deliberate effacement of the boundary between literature and everyday language, and the quotation of banal scraps of clichéd information or communication. In this interest in re-shaping their linguistic environment, the Concretists were close kin to performance art.

However, the problem this generated was how—given the ultimate ineradicability of poetic subjectivity—to structure these quoted scraps into some sort of meaningful, or at least non-arbitrary, whole. This is the problem that was already mentioned with *musique concrète.* As Adorno ironically noted, just to title a work "Construction Number 22" is no guarantee of its coherence.[53] One solution the Concretists frequently resorted to was the old neo-Dada strategy of claiming artistic status for the real world in itself, for the social environment as such, independent of aesthetic subjectivity. This is why the tautology is so important a figure in their work (cf. the Heissenbüttel lines quoted earlier).[54] The most famous exponent of this notion was John Cage. This was to take the

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[50] It is important to keep in mind that the ring modulator's output "will generally contain additional frequency components which are not present in either input" (Harald Bode, "The Multiplier-Type Ring Modulator," *Electronic Music Review* 1 [January 1967], p. 10). For Maconie, Stockhausen's use of the ring modulator, still tentative and experimental in the 1960s, was only fully worked out with *Mantra* (*Other Planets*, p. 332).

[51] So Heissenbüttel, in "Horoskop des Hörspiels," *Neues Hörspiel*, ed. K. Schöning (Frankfurt: Suhrkamp Verlag, 1970), p. 23.

[52] Gomringer, *Poesie als Mittel der Umweltgestaltung* (Itzehoe: Hansen und Hansen, 1969), pp. 12 and 7.

[53] "Titel," *Noten zur Literatur III*, *GS* 11, p. 326.

[54] Sabine Gross. "The Word Turned Image: Reading Pattern Poems," *Poetics Today*, (18:1), Spring 1997, pp. 15-32; Gross' view of this is more favorable than the present essay's.

idea of importing the Real into art, mentioned earlier, extremely literally; and it often tipped over into theatrical performativity, thereby activating the performative aspect of speech acts so important to the arts *circa* 1960 and thereafter. The Concretists termed this sort of aesthetizing of the environment "Umweltgestaltung," Environmental Construction. True to another key modernist idea, that of the sublation of art into life, they saw this as a re-functionalizing of art, in the service of rendering a technological *Umwelt* more inhabitable. To quote Gomringer again:

> in general it takes as a rule ten years before the programmed shells of our shaped environment are warmed up and the adaptation functions.[55]

Heissenbüttel, for his part, was more skeptical regarding this central problem of Concrete Poetry, its simultaneous reach for and denial of the sort of aesthetic integration which, in the German context, had once been enabled by hermeneutical *Sinn* (meaning) and musicality. In an essay on the history and poetics of the *Hörspiel* (radio play), Heissenbüttel suggested that the true unity, the best form of organization, for the radio play would lie "rather in the musical score-like [*musikalisch-partiturhaften*] use of language."[56] Heissenbüttel's own work in the radio station substantiated this, as did the work of other Concretists like Gerhard Rühm, who tried himself to produce *musique concrète* as well as literary work.[57] Yet the inventors of *musique concrète*, such as Pierre Schaeffer, were unable to organize their random empirical sound-discoveries into any coherent new language or syntax, and thus remained stuck in a repetition of the old historical avant-garde of musical Futurism with its "noise-symphonies" and collages.[58] Indeed, it is as if the very fixation on the semblance of the "concrete" itself, with its unattainable project of excluding all subjectivity, forbade such an integration.

In contrast to the two poles of blending the arts (what is now called "boundary overstepping")⸺as in Concrete Poetry's simultaneous graphic spatialization and mimicry of music⸺and the dissolution or sublation of the artwork into environments or the *actus purus* of performance art, Stockhausen held the extremes of concretion and action, noise and meaningful composition, together in his music. The unity of these lay in his concept of *Klang*, of sound. For Stockhausen's work may be seen as one possible end of a development in Western music leading from Hector Berlioz' *Grand traité d'instrumentation et d'orchestration* (1843) to Wagner's and Claude Debussy's orchestral invention, through modern post-impressionists like Bohuslav Martinů to electronic music.[59] Like Cage and later "soundscape" composers, Stockhausen listened to the aural environment at both the micro and macro levels (sound bath and "alethosphere"). But he

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[55] Gomringer, *op. cit.*, p. 25.

[56] "Horoskop," p. 33.

[57] On this, cf. Liselotte Gumpel, *"Concrete" Poetry from East and West Germany*, (New Haven: Yale University Press, 1976), p. 38f.

[58] For a historical overview of this, see Peter Manning, *Electronic and Computer Music* (Oxford: Clarendon Press, 1985), chapter 2.

[59] On Wagner, see Tobias Janz, *Klangdramaturgie* (Würzburg: Königshausen and Neumann, 2006); on Martinů, see the present author's "Sound as Form: Martin's Symphonies," *Music and Society in Eastern Europe* 2 (2007), pp. 77-115. Stockhausen's conception of *Klang* would have to be seen as an energetic one (almost in the sense of Ernst Kurth), which differentiates his work from Ligeti or the spectralists (this will be discussed in more detail in a forthcoming essay on intuitive music).

did not simply negate reflective musical subjectivity in a passive, depersonalized attitude of a Cage who simply declared by fiat that "everything is music," a gesture alternately dressed up in the guise of Zen Buddhist quietism or a supposedly "democratic" or "anti-authoritarian" rejection of the composer's choice.[60] Rather, Stockhausen still sought to *compose* the noisy sounds he had discovered through the electronic studio, radio, and microphony. As he saw, these noises, characterized by irrational or non-linear (chaotic) frequency behavior, could no longer be composed in the same sorts of argumentative, discursive structures that had characterized previous European music (and which continued to define the work of more traditional composers like Pierre Boulez or Elliott Carter). What he could do with them was modulate them. Modulation is the key concept and practice for understanding Stockhausen's work, especially from the mid-1960s to *Mantra* (1970). When Stockhausen combined and re-composed world musics from all over the globe in works like *Telemusik* (1966) and *Hymnen* (1966-7), he termed the unifying process modulation.[61] This is no mere bricolage, nor collage or montage, as in Cage's *Williams Mix* or *Roaratorio*. The result can be unsettling or breathtaking. "If classical modulation or sequencing resembles the movement of musical shapes in a map-like plane [i.e., that of tonality], Stockhausen's is more like learning to navigate in conditions of weightlessness."[62] Little wonder that "in all of Stockhausen's ring-modulated compositions from this period, the modulation process itself carries a strong emotional charge."[63] Modulation becomes the form of the technological subject in the age of electronic media: indeed, it may be its only chance to survive.

In pieces like *Mikrophonie II*, Stockhausen has composed the inner structure of sound itself, that is, the very "modulations" normally associated with radio (AM/Amplitude Modulation or FM/Frequency Modulation).[64] It is the *changes within the sound* induced by modulation that the listener must learn to hear. "The notation of live instruments and voices tuning in and out of consonance with electronic modulating pitches suggests that at moments when the two coincide exactly in frequency, the resulting tone should sound purer and also louder."[65] This experience of "tuning in"—surely a favorite metaphor for the 1960s!—would then be central even to Stockhausen's non-electronic works, such as *Stimmung* (1968) for six vocalists. As he described his work from this period in retrospect: "when you become like what I call a radio receiver… you will be amazed at what happens to you, when this state is achieved…You become a

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[60] "If you celebrate it as art, it's art; if you don't, it isn't" (cited in Rainer Riehn, "Noten zu Cage," Heinz-Klaus Metzger and Rainer Riehn, eds., *Cage* (Munich: edition text + kritik, 1990[2], p. 97). Some recent scholarship (*The Cambridge Companion to Cage,* ed. David Nicholls, Cambridge: Cambridge University Press, 2002) has differentiated between Cage's compositional practice and his pronouncements, often crudely amplified by Metzger and others.

[61] See "Interview über *Telemusik*," *Texte 3,* p. 80: "Der alte Begriff des Modulierens, des Wechsels in andere Tonarten, wird hier auf Stile angewendet. Ich moduliere von einem musikalischen Ereignis in ein Anderes, beziehungsweise ich moduliere ein Ereignis mit einem anderen."

[62] Maconie, *Other Planets,* p. 250.

[63] *Ibid.,* p. 267.

[64] Like television, FM radio was invented in the 1930s, but did not become widely disseminated until after World War Two; only in 1978 did the number of FM stations surpass that of AM stations.

[65] Maconie, *Other Planets,* p. 332.

medium."[66] Contrary to much media theory which assumes, in Foucauldian fashion, that the unleashing of electronic media can only produce "Dummheit" (Kittler), or tends to discipline precisely through the performative,[67] Stockhausen's media practice heightens rather than negates subjective activity. In this he only realizes an aesthetic program foreseen earlier in the century by Marcel Proust. At the end of *Le Temps retrouvé*, the narrator realizes that his memory of the past, symbolized by the sound of a bell, only exists within him. "In order to hear it better, from close up, I was obliged to descend into my own depths. For its ringing had always been there within me."[68]   Just so Stockhausen had to descend into himself to hear the modulated vibrations of the radio, to make himself into a transmitter or medium. Intuition and technological medium are here inseparable. The "environment" Stockhausen has composed is not only outside, but also within the ear itself.

Stockhausen's piece, with its internal musical structuring of the raw materials of performed speech acts, based on his decade-long investigation of acoustics and information theory, and its technological self-reflexivity through the use of electronic modulation, thus succeeds in achieving an internal coherence so often missing from many Concretist projects. In this, his work is at once the realization and the self-critical overcoming or transcendence of Concrete poetics. This reflects a deeper fact about the social context of post-1945 media arts: namely, that it is erroneous—both for artists and for critics—to mistake technological media for an autonomous reality, that is, for something "concrete." Behind the glitter of information and communication media (or, today, the "digital") lies the structure of managerial society, of Weberian bureaucracy, of what James Beniger called "the control revolution."[69] One of Adorno's warnings about post-war society was that it was—and is—a "verwaltete Welt," a managerial world, including what many still like to think of autonomous culture or art.[70] It is thus perhaps not by chance that Gomringer wanted to see the poet as a kind of (cultural) manager:

> the poet…who does not withdraw into the reserve of writers, can take his [sic] place next to the manager.[71]

The musical organization of Stockhausen's piece is a recognition that media subjectivity, far from being a purely material novelty—as so many recent theories often

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[66] Maconie, ed., *Stockhausen on Music*, p. 125. In the terms of Jonathan Sterne (*The Audible Past: Cultural Origins of Sound Reproduction* [Durham: Duke University Press, 2003], p. 22), Stockhausen has made himself into a "transducer."

[67] Kittler, *Draculas Vermächtnis*, 91; Jon McKenzie, *Perform or Else* (London: Routledge, 2001).

[68] Proust, *Le Temps retrouvé* (Paris: Gallimard Folio, 1954), p. 440. The same paradox is formulated in Rainer Maria Rilke's poem "Gong," where the sound of a tam-tam—the instrument Stockhausen used in *Mikrophonie I* for its noisiness, on the boundary between music and language!—symbolizes an intensification of subjectivity (see the comments of Albrecht Riethmüller on this poem, "Rilkes Gedicht Gong: An den Grenzen von Musik und Sprache," in Schnitzler, *Dichtung und Musik* [as note 4]*,* pp. 194-223). As Simon Emmerson (*Living Electronic Music,* p. 132) noted, "Both *Hörspiel* and performance seem to *externalize an internal theater of memory*" (italics added).

[69] James R. Beniger, *The Control Revolution* (Cambridge: Harvard University Press, 1986).

[70] "Whoever says culture, says also management, whether he wants to or not," Adorno, "Kultur und Verwaltung," *Soziologische Schriften I, GS 8*, p. 122. One discussion of the effects of this on literature (in the Austrian context) is Robert Menasse, *Überbau und Underground* (Frankfurt: Suhrkamp Verlag, 1997).

[71] Gomringer, *Poesie als Mittel der Umweltgestaltung*, p. 29.

suggest—is rather structurally coupled to social organization. The singing and speaking chorus of his music, at once improvising and also all totally distorted or "modulated" through an electronic filter, is clearly an allegory and embodiment of media subjectivity. And the contradictions of Concrete aesthetics discussed here are in their turn also only fully intelligible in light of this same media manager-dom with which we are still living today. That may be one of the reasons why post-1945 art still remains so much of an open question for us, even now.