Time is the Essence: Analyzing Free Improvisation

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Anthropologist Edward Hall, as a guest lecturer of the Society for Ethnomusicology (SEM) a few years ago, presented some theoretical ideas about improvisatory behavior in culture he felt relevant to specifically musical improvisation. A couple of things he said, printed later in the SEM journal *Ethnomusicology*, speak directly to my presentation today.

The first is this: "It is important to note that when one encounters a behavior system or any human activity which is believed to have no structure, it is a sure sign that one is confronted with a branch of acquired culture. If people speak, act and understand, then there are rules and regularities which will emerge *under the proper system of analysis*"

What he called acquired culture is that gained somewhere between the genetic hardwiring of nature and the rational learning process of socialization--the ways of walking, talking, singing and playing children pick up by observation and osmosis from their surroundings. He ascribed both the impulses and payoffs of improvisational behavior to this mode of cultural transmission.

Later, in distinguishing between the three modes I just mentioned--nature, nurture, and socialization, along with their respective locations in the triune brain's limbic, mammalian, and neocortical layers--Hall mentioned linguist George Trager for the latter's "studies of time as a nonverbal system of communication… From the very beginning I have been deeply preoccupied with time as a basic archetypal manifestation of culture--an organizing system of behavior. Because time is a component of everything, I reasoned that it would be a good starting point for an analysis of culture." Hall's own anthropological studies have looked at the way different cultures experience and organize time, pegging that to his formal, informal, and technical categories.

The formal is that which is defined, given, to be performed; the technical is that which is rationalized in systems of number, notation, words--law, science, theology. And the informal comes from the biological clock of bodies in abovementioned acquired culture.

The German musicologist Ekkehard Jost begins his 1987 book *Europas Jazz* with this question: how shall he analyze a music that creates and defines itself in the moment of its sounding? He

was referring to the music known as free jazz--which indeed had ushered in an improvisatory practice that many European critics and players (which Jost also is) understood to be European jazz' individuation and independence from its American parent. Since the free jazz movement that started in the 1960s in both America and Europe as a gesture of liberatory protest has expanded since to a much more broadly motivated "new and improvised music" scene, Jost's question rings all the more loudly, because only the beginnings of answers to it have been given by him or by the handful of other scholars who have taken it on.

Further social history and cultural context of free jazz are not important to this paper. The musical gesture of spontaneity described by Jost is--and the way to broach it analytically is to look at analytical studies of its musical parentage, pre-free jazz and postserial Western art music, noting what can be salvaged and what not. What you find when you do that is:

1) "not only analytical but general scholarship on improvisation is in its infancy," in the words of Australian musicologist Roger Dean;

2) the scant English-language analytical literature on jazz is virtually all on pre-free improvisation, or that prescribed by compositional premises from the Western diatonic-chromatic system, and is inscribed in conventional Western notation, sometimes with minor alterations to convey elements other than metrical and pitch relationships (timbre, inflection, etc.);

3) these pre-free improvisations have been analyzed with a range of approaches, including literary and social scientific ones that involve no musical-transcriptive analysis; those more strictly musicological and music-theoretical approaches that do involve transcriptions overwhelmingly use conventional notation and associated frameworks--such as Schenkerian and pitch-class set theory--that were even with pre-free jazz and 12-tone music acknowledged as being stretched to their limits by such applications.

The details of that stretch are beyond this paper--I examine them elsewhere--but I can best convey it to you by comparing it to the stretch an astronomer named Ptolemy made to keep increasingly unwieldy astronomical data within the bounds of his geocentric discourse. In short, while diatonic-chromatic pitch and pitch matrices certainly carried over from pre-free jazz and pitch-based compositional paradigms into the free jazz discourse, the music itself no longer revolved around that ground. That ground itself was now revolving around a sun that, if the abovementioned paucity of analytical scholarship is indicative, is still mostly too bright and/or unfiltered to look at and describe and study.

Note I said mostly. Jost did begin to answer the question he posed in subsequent pages of his book. And, to my mind with the sure instincts of a player who just has to analyze what he's doing, his answer identified the name of that music's sun, thus orienting the analyst to its light at

the end of the tunnel of pitches: that name is Time. I will conclude my talk with extramusical musings that I and other scholars see as revealing this sun--shared by both musical and universal cosmos--as the central anchor fixing both music itself and useful analyses of it as it spins away from prescriptions and descriptions of patterns of pitch and rhythm. A look at Jost's work and that of a few other scholars, in a presentation of the methodology I'm developing from that work, will lead us most substantially into those musings. First, a little more background.

Dean--whose book stands alone in many ways for the lengths it goes to to comprehend and address the inadequacies of current transcriptive analysis of improvisation, especially free improvisation, built from hundreds of musical examples and other books and articles--states that

"not only analytical but general scholarship on improvisation is in its infancy;

for freely improvised music, pitch structures, with timbre/texture and rhythm, must be explored freshly for what they reveal more than what they prove;

such explorations require equally fresh and creative transcriptive approaches, to target and/or prioritize and define the maximum variety of information."

Unfortunately, he also writes that "conventional Western analysis, though it has focused on harmony and motive, with rhythm subsumed therein, is probably still the focus most suited to 'jazz and freer improvisation.'" I contest that here. I also don't see the shift that is required to be one of emphasis to rhythm, at least for the "freer improvisation," especially from Europe. Jazz and ethnomusicological studies have benefited recently from a shift to rhythmic analysis, and conventional notation used maximally and creatively can support that shift. Charles Keil, David Locke, Paul Berliner, and Ingrid Monson spring to mind as immediate examples of good, solid work in this area. But again, they all work with pre-free jazz, which mates African-based rhythmic cycles with Western metric frameworks for viable musical offspring. Free jazz and its branches are as free of such constraints as they are of the constraints of tonality both diatonic and chromatic. That is, they are free in the same sense I mentioned above--such elements are still kicking around in the music, but they don't constitute a framework of meaning and performance.

The scholars I see as taking first steps past the dilemma Dean describes are two untranslated Germans, Jost and Dietrich Noll; Lawrence Ferrara, an American who built his approach on German phenomenology; and two African-American players of the music who also write analytically about it (Leo Smith and Anthony Braxton). The figures below show how I treat the wide variety of free improvisations I study; as I explain them, I will attribute to these scholars the elements they inspired, and explain the nature of the inspiration. All of them except Ferrara are for reasons of language and publishing realities not easily accessible to English-language

academic researchers.

We examine a recording from the early days of German free jazz by the same group of players Jost analyzed, Alexander von Schlippenbach's Globe Unity Orchestra. The piece is called "Sun," on *Globe Unity* (SABA 15109, 1966). Jost's analysis of the other side of this LP involves two strategies: time the musical event, and describe it verbally. His "blow-by-blow" description marks the piece as it unfolds through a real-timeline from 0'0" to 19'58", with 18 changes along the way; the shortest unit so described is 15 seconds, the largest 3'53". What this method reveals, and what is the case, is a series of compositional signals played by Schlippenbach and others to trigger a range of improvisational responses. Jost applies his verbal microscope to various time units of interest, and then overviews the string of them.

Momenttime: (KF 1) perc. voices/piano = foundation, ensemble/soloists, cued by Rohrglockenspiel (chimes); relaxed pulses, nervous soloisms rising from and falling to them; ubiquitous perc/bass/vibes conversing with and around and under succession of wind statements solo and collective (total time, 9:20)

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minute…	**event…**
1	perc < whistle / duckcall... gongs...piano flurry atonal, two basses (bowed/pizz)
2	**rhythmic riffs** (rattles, drum rolls--regularities emerging from open timefield) bowed bass, glissing, perc <
3	chimes [45/PPa] ... :15 reed (nervous, exhorting, whiny), basses calmer, vibes perc/olating
4	gongs **chimes [120/PPa]... Brötzmann (ts) echoes chimes pitches...** wailing, exciting the vibes... :35 mouthpiece solo, whimpering >
5	bass thumping, vibes respond, duet with reed, bowed bass in ... :40 chimes **[60/PPa]** cue trumpet, reeds
6	

	:10 **chimes [90/PPa]...** slow winds, busy drums
7	**chimes [90/PPa]...** pizz bass--all in suddenly, like excited primates jabbering and chittering; hot... :35 **chimes [PPa]...** trumpet solo, rhythm section (drums/bass/vibes supportive, interjectory); cool
8	:10 chimes **[90/PPa]** ... all in again--Brötzmann, bowed gliss bass, vibes, longtones/trills
9	:10 **chimes [90/PPa]...** full ensemble, long tones :20// ...**bell taps out 90/PPa 16 beats, to end this Kf**

Flowtime: quarter note = 60/wp

Fig. 1: Timeline of Alex Schlippenbach's "Sun."

Thus my Fig. 1, above, a similar timeline, step one of my method. From Jost's bare bones of time markings and text I've built a template that covers flowtime, on the bottom lines, and moment time, on the top. Above the top line are my summary descriptions of each unit of duration being analyzed. These are labeled KFs, which I'll explain shortly.

Under the bottom line is a statement of pulse--and here really beats the heart of this method. WP (with the metronome number for beats-per-minute) stands for working pulse: a pulse that I impose as an analytical tool, not one I assert as dictated to me by the music. If you turned a metronome on at this speed, at this part of the music, you would see that it does indeed work, that it makes a sense clearly not *pre*scribed--none of the players counted it in or consciously and strictly adhered to it, after the fashion of mainstream jazz--but it is in amazingly consistent and regular sync with the playing as charted. Certain multiples of it would work as well--halves, doubles, triples--but 10 and often five metronome beats slower or faster would not. It is also mutable in the sense that its divisions by half, or three or four would work equally well, and might be preferred for framing certain aspects I may wish to analyze. For example: a trombone may be playing a line that has roughly half the metric feel of a saxophonist with whom he interacts, or the drums may be stating or implying a pulse that is a triplet division of the trumpeter's duple meter.

Even more interesting, the working pulse within the flowtime's duration markers reveals patterns of regularity and symmetry that clearly were not orchestrated and as clearly not felt consciously

(the patterns, that is: the events themselves were orchestrated in the examples used here, as we'll see, but the pulses and the times of each event's beginning were not). The important thing is to recognize that pulse indeed pervades this music implicitly, and that I can thus make it explicit, as Schenker made his *Urlinie* explicit, as a sound analytical strategy.

There are three other kinds of pulses I track. P/Pa's, prevalent in this example, are what I call pulse patches--parts, usually sporadic and brief, where the working pulse is explicitly stated by a given instrument; P/Pi (pulse pitch) is a specialized term for the bass, since it often feels much like a walking jazz bass sheerly in its sound, when plucked, even when it is sounding as apparently aimless and arhythmic as other instruments playing similarly; finally, PE is pulse echo, which I hear in sections of open improvisation that follow definite statements of pulse (that is, the working pulse there seems to be derived from those statements, even though they are not being explicitly sustained).

Sometimes there really is no pulse, in which case the bottom line is empty and the top line predominates. Most of the German music of my focus is more strongly rooted in the jazz side of its family than other European improvised music--and both Jost and Noll also see pulse as crucial to German free jazz--but even it has palpably pulseless moments; there's an example of one such in the music we're hearing, which I'll point out to you in a moment.

For however many listenings it takes to do it, I jot down notes between the top and bottom lines describing both the simple facts of the event as well as whatever emotional responses I have, or imaginative insights that evoke its effects on me. Those in bold--the ones that strike me in the moment of hearing as most significant or worth further attention--will determine my next analytical step.

In the sheerly descriptive aspect of this, I am again following Jost's beginning. His analysis of German saxophonist Peter Brötzmann's recording *For Adolphe Sax* was entirely verbal, milking what analysis he could out of discussing the difference between sections of solo, duo, and trio interplay from a recording of Brötzmann's trio which Jost describes, with some exasperation, as "from A to Z freely improvised music, which knows neither a tonal center nor a regular rhythm and which ignores every standard of composition."

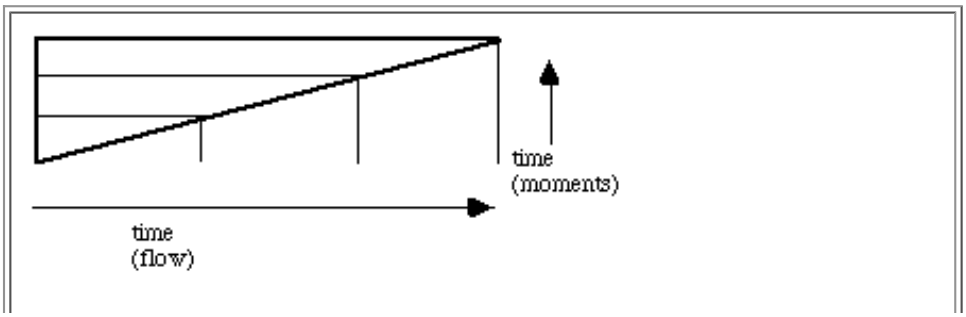

Fig. 2. Edmund Husserl's diagram of the consciousness of time.

Fig. 2 brings us to Noll's 1977 book *On Improvisation in German Free Jazz: Toward an Aesthetic of Freely Improvised Sound Surfaces* (my translation). The German word for "sound surfaces" is *Klangflächen* (which I have abbreviated KF).

Noll invokes/cites from philosophers including German phenomenologist Edmund Husserl, and Deleuze, Hume, and Henri Bergson on the nature and experience of time; that discussion revolves around how successive moments effect a static present, in consciousness.

Fig. 2 is Husserl's diagram of this concept. The horizontal indicates the flow of time's arrow from left to right, and the diagonal that of a consciousness of this flow giving rise to moments, shown here accruing in a vertical stack of horizontal layers, each of which has a vertical counterpart in the flow of real time, to indicate short-term memory.

In Noll's usage of this, the horizontal layers are *klangflächen*; the vertical lines are the moments of transformation from construction to completion of one and emergence of another. The important point is the indivisibility of *each* triangle, though only the smallest is "simple" ("complex" ones are also indivisible; in this sense is the whole greater than the sum of its parts).

Noll's theory of the use of the *Klangfläche* (singular) in free jazz improvisation starts by looking at its mode of construction, which is repetition (three kinds: regular, imitation, variation). Recurrence, reiteration, retention: memory things, music as a time-sense catalyst. A musical gesture is drawn and redrawn in time until it stands clearly outside the flow of drawing and time, in consciousness, at which point it gives way to, indeed begs, a new gesture.

A *Klangfläche's* sound units are its moments, leading to a critical mass of transformation. The *Klangfläche* is established by repetition (even of one sound--thus, for example, saxophonist John Coltrane's signature sound can be established with a single note, held and drawn enough to establish his identity; that would be a simple *Klangfläche*, even as thirty minutes on his "My Favorite Things" could be graphed as a single *Klangfläche*, but a complex one, comprising many simple ones. Thus we can distinguish between Coltrane's tone and what he does with it, without rending those two aspects asunder.

Husserl's diagram shows the way a horizontal "present" emerges out of a vertical accretion of "moments;" parting from Noll's use of this construct, I prefer to base my own *Klangflächen* on the implied "underside" of Husserl's diagram, to better show graphically the symmetrical periodicity of music's biological clocktime--and also to emphasize the real-time musical event

itself rather than a short-term memory of it, and to avoid association with the concept of such memory as layered into strata that suggest a hierarchy between a clear consciousness on top and an inevitably repressed subconscious under it.

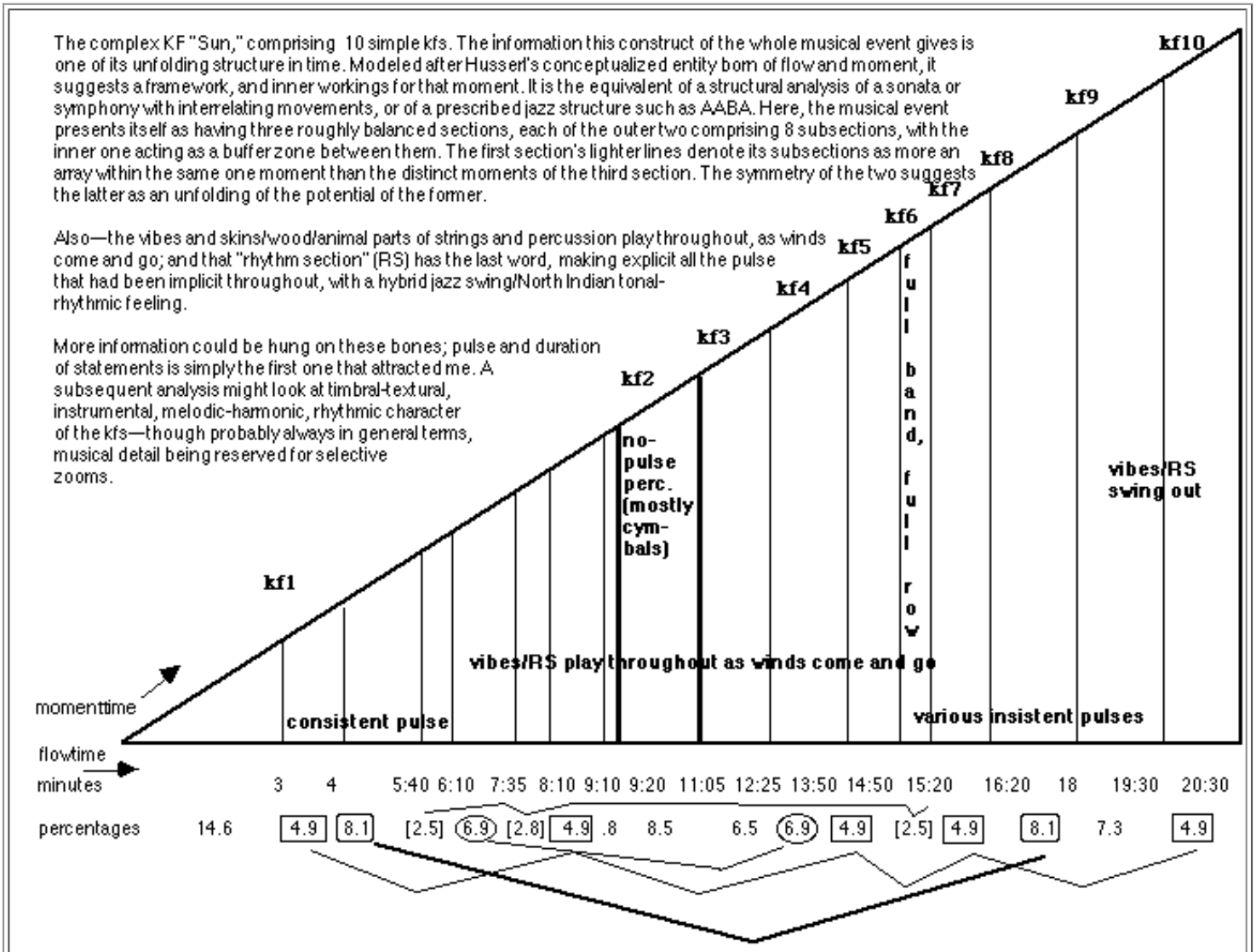

Fig. 3. Analytical graphic of Alexander von Schlippenbach's 1965 piece for the Globe Unity Orchestra, "Sun."

My elaboration on Husserl and Noll is shown in Fig. 3 (step 2 of my analytical method). Here, the individual analytical units--each a simple Kf--are shown as they successively unfold up the triangle to the final single, indivisible complex KF. I may explore other geometrical constructs that fulfill this function--such as concentric circles, which might suit better the English improvisers--but this one works best for the Germans for its definite sense of time both flowing in one direction and standing in a moment.

Notice that what is marked Kf1 is itself subdivided into what look like still simpler kf's; these are more like nuances of shifting voices, textures, or other elements that struck me as part of one

gesture, in contrast to the distinctly different kfs from kf3 on.

You can read what I wrote on this Figure to get a sense of how and why it interests me. Since this first analysis I have done many more, and have unearthed thereby many more examples of periodicity and symmetry and refined their measure and representation. This approach, like the music itself, starts out as the soul of simplicity, but yields patterns intricate and deep enough for the keenest analytical and aesthetic mind.

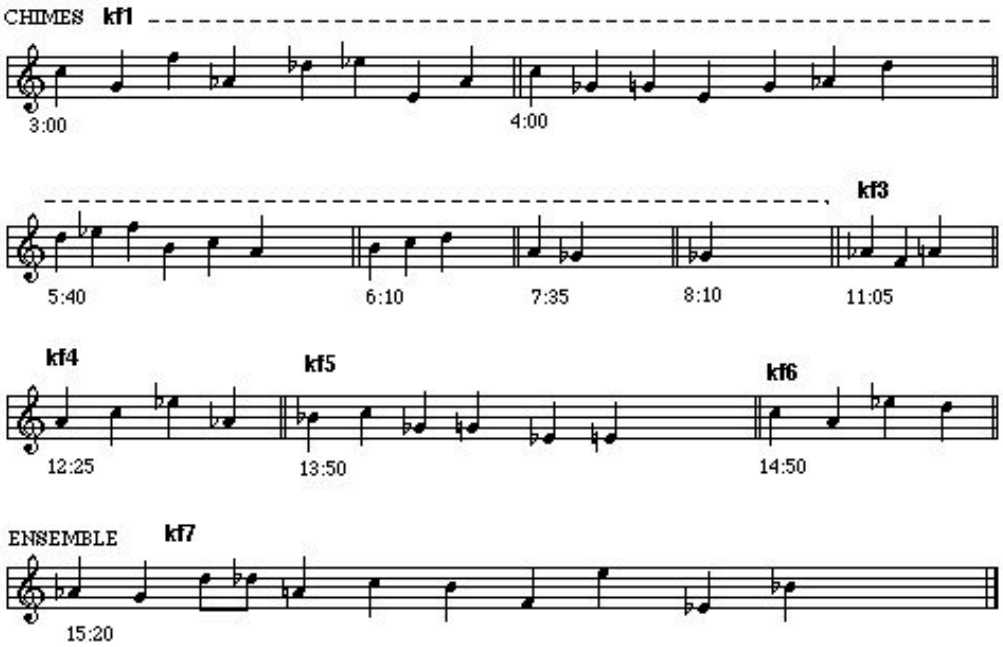

Fig 4: This series of non-repeating pitches decrease in number by the end of kf1 until, at kf2, all pulse disappears. They pick up again at kf3 and lead up to a full chromatic row stated by the full ensemble, in kf7.

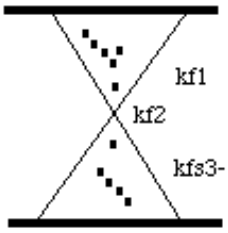

Fig. 5: Pitches as sands of cosmic time flowing through the no-time point (kf2) leading to the biological time of breathing beings (wind players) who can only bear its flow for the moment of life (breath).

Figs. 4 and 5 (step 3 of my method) show some examples of zooms into aspects of Figs. 1 and 3. In this case, it's the recurring appearance of the *Rohrglockenspiel*, the full ensemble statement in Kf 6, and (with the hourglass figure) the ubiquitous presence of the metal vibraphone next to the transient appearances of the wind instruments. It might well have been a zoom into a melodic or rhythmic motif, a timbral or dynamic development, an instrumental voice or combination, or even an emotive affect. These zooms are usually extracted and presented as kernels of the improvisation within a given Kf, musical material that is repeated and altered in various ways, per Noll, kicked around interactively, then left for the next Kf. Whatever conventional transcriptions I do will be in these zooms.

It is here too that I draw on abovementioned players/composers who improvise, such as Braxton, Smith, or many others who have developed their own graphic notational devices to represent the kinds of things I want to highlight. If I'm analyzing one of their improvisations and I have their own such devices I may use them; otherwise I make up my own (eg. a picture of an instrument to indicate its voice, jagged or mellifluous lines to denote intervallic or glissando lines, weaves or parallels of same to denote interaction, and so on).

In bringing in my own subjective emotionally and poetically charged terms here and in the words in Figure 3, to add to the sheerly objective descriptive ones Jost used, and I use in Fig. 1, I am bringing in the work of Lawrence Ferrara, who, like Noll, also drew on the German phenomenologists Husserl and Heidegger. Ferrara's "eclectic approach to musical analysis" is designed to ground any and all analytical fixedness in the mutable potential --of meaning, interpretation, reception, representation--inherent as the mystery in music. Thus its ten steps are a mix of "open listenings" for, among other things, "virtual feeling," or the music's emotional affect, as well as for what he calls predetermined rationalizable aspects such as "syntax" or pitch relationships.

	UNPRESCRIBED	PRESCRIBED

musical media	recordings	scores, lead sheets
field	duration (minutes/seconds)	number of measures
structure	sequences of symmetrical periodicities	movements, sections, phrases
flow	implicit/in-phase pulses	tempi
voice	shifting instrument groupings/roles	fixed instrument sections/roles

common elements	dynamics accents phrasing timbre/texture melodic flow harmony counterpoint

Fig. 6: Structuralist couplings to show the way this methodology compares and contrasts to conventional analysis.

Since part of my agenda with this work is to bring analysis and theory of freely improvised music into both mainstream ethno/musicological and interdisciplinary discourse, I'll conclude by observing a few traits of what I've just presented that seem significant to me.

The first is the way this methodology compares and contrasts to conventional analysis. Fig. 6 shows structuralist couplings to do that. The point: to the degree that the elements on the left are as unprescribed as the music being analyzed, the analyst must do what Ferrara calls "divination;" or, as he also writes, "the analyst is a related or corresponding [to the artist] genius." Like the musicians, he is working with musical time not in the abstract but concretely, exactly as German phenomenologists such as Husserl and Heidegger attempted to do with existential time. Thus it is axiomatic that all analyses and theories are as arbitrary and authoritative at once as is the music itself--things about the music are revealed in one of an infinite variety of ways, just as the musical event is one of an infinite variety of expressions that could have been made. This is in keeping also with Roger Dean, who notes that most music carries more information than is processed cognitively by either listeners or players, and that analysis should focus on the information so processed. Of course, each improvisation is different; likewise, it should be understood that each analysis of the same recorded event is only one of many possible from a succession of listenings.

Also: the surface and the whole are conceived here as the primary focus, its components (of pitch or rhythmic patterns, or anything else held under the microscope of step 3's zoom) are secondary. This is a reversal of both Schenker and Allen Forte and other pitch-class set theorists, who start from a detailed surface expression and try to unearth underlying schemes that generate its various patterns. Thus the exoteric sound in time stands as primary reality, not a derivative and a veiling of a hidden esoteric reality. Whatever aesthetic or philosophical meaning the freely improvised musical gesture has is thus ascribed metaphorically to it rather than prescribed allegorically by it, again bringing the analyst/theorist--audience, for that matter--into full participation in creation, rather than into the subservience of an aspirant to or mouthpiece of the esoteric knowledge.

Indeed, the complete analysis may come, as this approach flowers to its full potential, to *require* a subjective mythologization of musical material, along with a responsible rationalization of it.

The responsibility, competence, and elegance that currently define good music scholarship may then be redefined to meet standards applied to creative writers, or to the musicians themselves.

If such were applied to my musings here, I might respond that Alexander von Schlippenbach did not call his piece *Time*, but I called Time my sun, and I used his *Sun* to demonstrate that, without imposing on his work in any way, but, on the contrary, revealing something in it that I would bet you money he would like to know about himself.

Heffleyhome|||||||||**Almajobtalk** |||||||||**Almatexts**

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