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Zaum: Beyond Mind – Beyond Time?

Zaum : au-delà de la raison, au-delà du temps ?

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Zaum: Beyond Mind – Beyond Time?

Zaum : au-delà de la raison, au-delà du temps ?

Caroline Wilkins

- 1 In this paper I examine the effect of interactive technology on our aesthetic perception of time during performance, drawing examples from a collaborative, research-based work entitled *Zaum: Beyond Mind* with electronics composer Oded Ben-Tal (Kingston University). This is a piece of sound theatre comprising voice, bandoneon, piano, live and interactive electronics using Pd (Pure data), choreography, lighting and film (an excerpt from Dziga Vertov's *Man with a Movie Camera* 1929).¹
- 2 Coined by Russian poet Khlebnikov, *zaum* means “beyond mind” and describes experiments in sound symbolism and linguistic creation stemming from Russian Futurist poets of the 1900s such as Alexei Kruchonykh, whose “Zaum in Tiflis” (1917-1921) provides the basis for much of the vocal material used in the performance. *Zaum: Beyond Mind* is structured in such a way as to allow for improvisational content as well as making musical and dramatic sense. In its present form three large acts trace the unfolding of sonic and visual material. Within each section, however, the precise duration of interactive material is left open, depending instead on a mutual sense of timing and communication on the part of the performers. Pre-choreographed moments of entrance and gestural acknowledgment between them serve a dramatic as well as a functional purpose in the overall framework, at the same time allowing space for reaction to a live audience.
- 3 I explore meta-technical ideas with regard to the temporal considerations involved in this kind of creative process, whereby the flexible medium of interactive performance allows for a work to transform and grow organically over time. There is also a “play of time” that happens in the mind of the receptor through a juxtaposition of audio/visual materials in the piece that engenders a re-connection between past and present. Digital technology has allowed us to create new temporalities within performance, to explore the past and future in a present moment through the simultaneous presence of the live and the virtual. We spatialise time, extend it, intensify it by means of verticality, constantly

re-inventing the enormous matrix of the “now” as a “space within time itself” (Varela in Hansen 2004: 250).

A metamorphosis over time

- 4 Contrary to the “life” of most works of contemporary music theatre, those involving interactive performance with technology demand a different approach in their relation to chronological time. Given the rapid acceleration of audio and visual media tools, creative practitioners are obliged to re-address the traditional form of a fixed work, notated usually in the form of a score, whose intact realisation can be guaranteed at a future date. Confronted with the dilemma of impermanent technical materials that depend on the evolving capabilities of their users, we are faced with something of a paradigm shift with regard to the very nature of an artistic work. A new eccentricity has emerged in the relation of intermedial performance to time, one that is no longer based on a re-creation of a particular time point pertaining to the piece, but on its fluid contextualisation within the relevant temporal framework. The reasons for this lie in a fundamental shift of creative working conditions and tools that involve network processes, shared data, distributed cognition, and a dynamic partnership of humans and machines, replacing a previous domination of one over the other: “former internalisation of thought is transformed into organised properties across malleable media” (Hutchins in Hayles 1999: 291). Thus a work is allowed to transform and grow organically over time, adapting itself to changing technologies, situations, contexts, cultures, and new interpretations. However, to paraphrase Chiel Kattenbelt, it is the element of live human performance in combination with new media that provides a vital depth and intensity to each re-creation, reflecting in turn the transitory nature of both art and life (Bay-Cheng, Kattenbelt, Lavender & Nelson 2010: 37).
- 5 To return to *Zaum: Beyond Mind*, I will describe how a particular structural conception allows for variation with each performance, thus characterizing a certain changeability over time. Essentially comprised of modules that can be re-assembled in any constellation, the overall duration of the work is not fixed but subject to the unique conditions of each performance. Its inherent unrepeatability lends an illogical slant to the current practice of linearity in most contemporary music theatre. All the more so when a large component of the material is improvisatory and – within certain parameters – aleatoric on the part of the performer and the electronics. Within the space offered by each module – the term corresponding to a “scene” in terms of theatre – there is room for manoeuvre in order to allow for real-time interaction between the voice / instrument(s) and the electronics. Thus the score is constructed in a form of a collage containing clusters of aural or visual notation that are perceived vertically rather than over a horizontal time-span, and act as a reference guide for the performers. The condensed information bounces off the page and causes an experience of instantaneity in the reader:

Fig. 1: score excerpt from *Zaum: Beyond Mind*, Caroline Wilkins, 2009

- 6 Added to this is the inherent changeability of the electronics, whose programmed patches (computer diagrams representing the various sonic components in operation), created by composer Oded Ben-Tal, undergo constant re-evaluation according to the challenges offered by each performance. The process of working with such a malleable medium means that new parameters offer themselves as ongoing possibilities within the aesthetic framework of the piece. In this sense the term “work-in-progress” becomes invalid as clearly there is no final, finished product to be considered. Arguably the technological tools involved here will become out-dated in the future and after the life-span of this work’s authors, who remain at present its sole performers. This raises questions as to its interpretation by other performers who will bring new technological tools to the artistic intentions of the score and to the very different time-span involved in working creatively with technology. To return to my previous comment on intermedial performance in relation to chronological time, the demands made on its practitioners remain in stark contrast to those of contemporary opera for example, where a relatively short rehearsal time precedes the performance of a fixed score.

A play of time

- 7 Turning now to the textual, sonic and visual materials that provide the basis for *Zaum: Beyond Mind*, there is a deliberate juxtaposition of the historical past with the present, of the old with the new, causing a radical re-connection of temporalities in the mind of the receptor. The vital link between early 20th century technology and “the epoch of simultaneity” that has been heralded by the digital lies in the manipulation of time (Foucault in Bay-Cheng 2010: 85). *Zaum* poetry, with its emphasis on sound rather than meaning, lends itself well to a contemporary digital treatment by means of electronics

that shift the vocal intonations into new dimensions of multiplicity, fragmentation and timbre:

**Zaum in Tiflis,
1917-1921:**

KRUCHONYKH

pale are all
the lands
and red
the noses
i alone am sev-
ere
and black
like
a plaster

Fig. 2: excerpt from *Zaum: The Transrational Poetry of Russian Futurism* (trans. Gerald Janacek), San Diego State UP, 1996, re-printed with permission from the publisher

The noses		the lands	a plaster
like	a plaster	and red	Pale!
			Pale
	And black	a plaster	like
the noses	the noses		
	Like	I a-lone am se-VERE	a plaster
like	Pale!	Pale	
a-lone am se vere		like	the noses
		the noses	and black
a plaster	and red	the noses	Pale

Fig. 3: *Zaum: Beyond Mind – A Landscape – Multiple Voices*, pre-recorded and mixed by Oded Ben-Tal, notated by Caroline Wilkins (2010)

Fig. 4: "Patch Poetry" based on a *Zaum* text by Alexei Kruchonykh, Oded Ben-Tal, 2010

- 8 Fig. 2 sees part of a translation of the original Russian text, reproducing the format of the page as written by its author, whilst Fig. 3 represents a sound documentation of multi-channel voices heard over four speakers, whose variations in volume are indicated by the size of print. Kruchonykh's vertical composition of words and syllables is transformed into a horizontal time-score with silences between the words indicated by a blank space. Fig. 4 plays with the imaginary representation of the same text as a Pure data patch with its word-blocks connected by lines in much the same way as an electronic sound diagram. However it is entirely non-functional as a sound source and simply illustrates a bizarre collision of poetry from one era with digital technology from another.
- 9 Another historical source, in the form of an excerpt from Dziga Vertov's film *Man with a Movie Camera* (1929), is juxtaposed with live performance in a scene of interjections by the pianist/vocalist, the electronics occasionally altering the resonance of the piano to sound like a virtual instrument. "Speech!" cries the voice in reference to Kruchonykh's text, as a Russian poster image of a woman – finger pressed to her lips – appears on the screen. Collisions between sound and image manifest themselves in moments of simultaneity between old and new media as the aesthetic of one interacts with that of another. Perhaps this offers an answer to Mark Hansen's probing question: "How can media art broker an opening of embodied experience to the sub-perceptual registration of intensive time?" (2004: 235).
- 10 Finally a third exuberant contender in the play of time of this sound theatre piece is the bandoneon, an exotic cousin of the accordion whose main claim to fame lies in tango music. Drawing its historical origins from the 19th century in Germany, when it served not exclusively as a substitute for the church organ, it quickly became an instrument of popular culture and accompanied the migration of many Europeans to the shores of South America during the century to follow. However, although traces of its colourful past remain in the unmistakable presence and timbre of the instrument as it appears in *Zaum: Beyond Mind*, both its music and the visual movement of bellows operated by the

performer undergo a radical temporal shift. Lifted out of its functional context, the bandoneon becomes an “instrument-body”, an extension of the performer’s body as the bellows fold and unfold in time-space. There is a certain extravagance in these visual gestures as they stretch the sounding of one note in a long, seemingly endless movement, each ridge of a fold marking a visible “time-point”.

Fig. 5: Choreography sketch for bandoneon & performer, Caroline Wilkins, 2008

- 11 The instrument meets its virtual counterpart that has been generated by a transformation of original sound through digital processing of pre-recordings, and is capable of interacting with it in real time. Thus a live player is surrounded by the sound of an imaginary instrument-body, permeating the space over multiple loudspeakers and importing another dimension of time into the present moment as it encounters the actuality of performance. “Machine-time”, as represented by digital technology, enlarges the frame of the “now” by expanding our experience and understanding of a complex embodiment of time. To refer again to Varela, the “now” becomes “a frame or window of simultaneity that corresponds to the duration of lived present” (Varela in Hansen 2004: 250).

A space within time

- 12 In the final section of this paper I return to three terms mentioned in my introduction that draw attention to the eccentricities of time made possible by the combination of intermedial technology with live performance, namely spatialisation, extension and intensification, taking examples from the sound theatre work in question. As cited above in relation to the sonic distribution of a virtual instrument, space becomes inhabited by “travelling” sound that shifts from one speaker source to another, so that the auditor is aware of its proximity, distance and localisation emanating from all sides of his/her

listening body. This sculptural use of pre-recorded electronic sound becomes all the more complicated when supplemented by live amplification of the voice or instrument that triggers off, in turn, live electronic responses. Thus we have potentially at least three different levels of sound happening simultaneously through diverse loudspeakers, each with its own particular time-frame: the pre-recorded, the live, and the real-time response to the live. A case in point would be a scene from *Zaum: Beyond Mind* where both the bandoneon and the voice are performing live, evoking electronic responses to their sustained pitches, whilst a fixed sound file in the form of pulsating electronic frequencies subtly permeates the sonic space:

Fig. 6: Scene from *Zaum: Beyond Mind*, Oded Ben-Tal, Caroline Wilkins, DRHA conference, 2010, Brunel University, photo: Neil Graveney

- 13 Multiple facets of time are experienced here as a widened perspective of spatial difference between the sound sources – of far and near, macro-microscopic, ambient and localised. Our sense of visual and acoustic perception is distorted by the over-amplification of miniature sounds produced by the percussive keys of a bandoneon for example, leading the ear but not the eye into another larger, imaginary sonic “chamber”. In phenomenological terms, the experienced duration of this moment is magnified, although the actual duration of the live source may be relatively short. By means of echo, delay and resonance, technology has altered the “listening room” in which we hear the sound, providing us with a virtual sonic reality that exists alongside our visual perception of the actual event onstage.
- 14 Extensions of time through electronic means happen on two levels in the piece, either in real-time as a result of the interaction between a live sound and its virtual response, or in terms of pre-recorded sound that develops and expands the same material that was heard live. An example of the latter is seen in Fig. 3, where the text, having been performed live in its original form just beforehand, is compounded, fragmented and repeated by multiple renditions of the same voice, each emanating from a different corner of the space. At this moment the live voice (not included in the score) interjects with utterances of shock and surprise, shredding the words as though forced into a “black hole” of the memory, the

effect of which creates an almost uncanny temporal suspension between two “realities”. In terms of real time, examples of electronic extension, either as live or interactive responses, abound in the piece. The difference between the two is important to note: namely, the former kind of response implies a simple manipulation of a live sound (such as an extended echo), whilst the latter involves choices made by the computer programme. Indeed the performer also adopts certain characteristics of a sound-machine when launching into moments of extensive repetition. “Black” becomes a seeming infinity of “k,k,k,k,...” that confounds the ears in its regularity and almost inhuman duration, a sonic gesture that is finally taken up and developed electronically. As indicated earlier, interactive responses sustain and prolong a discourse with a live sound source, opening it up to another plateau that exists entirely in the present – that of improvisation between a performer and the pre-programmed intelligence of a machine.

- 15 Manipulations of time move from the horizontal to the vertical plane as the improviser, freed from producing a continuous horizontal line, enters into momentary interjections with the interactive electronics, the two building aggregates of intensity as their combined durations overlap:

Fig. 7: Analysis of improvisation sketch, voice and electronics, *Zaum 2*, Caroline Wilkins, 2010

- 16 In this score sketch a graceful glissando comprised of air and a sound cluster respond to the prolonged fricative “zzz...” of the voice. Exclamations of the word “Speech!” on the fourth stave elicit sudden bursts of electronic “birdsong” that fluctuate wildly in pitch, before shifting immediately to another timbre in the form of a sustained, low sound cluster. The electronics are clearly following the melodic contours of the voice in the passage that follows, before rebounding in a delayed response to the sudden shifts of vocal timbre towards the end. The indication “S-low patch” refers here to a pre-recorded, fixed electronic sound file that is running parallel to the interactive electronics, providing a sonic framework for the live events. The fragments of text stem from the

third of Kruchonykh's poems taken from "Zaum in Tiflis" that I refer to at the top of the score as "Memory".

- 17 Thus a live vocal or instrumental source becomes animated by its virtual equivalent in a chain of sound stimuli that rebound to each other at lightning speed, their borders crossing in a constant flow of multiple layers so that the listener is not always able to discern between them. This enormous space opened up by the "now", to refer again to Varela, heightens our time-consciousness and perception, presenting us with an infinity of sonic "mirrors" that refract from each other. For the performer this process is both fascinating and complex, demanding an instinctive sense of timing, of acting and reacting to a virtual counterpart in a constant flow of dialogue. There is a sense of instantaneity, of "play" with the electronics, of imitation and variation, where any conscious decision-making has been replaced by a complete saturation within the moment, to paraphrase Virginia Woolf (Woolf in Deleuze & Guattari 2004: 309).

Beyond mind-time?

- 18 By way of conclusion I draw some parallels between the aesthetic premises that lay behind the invention of *zaum* poetry and their manifestation in relation to time as revealed in the sound theatre work of the same name. Indeed there is a direct historical link between the trans-rational language or "words-in-freedom"² of *zaum* and the beginnings of its contemporary equivalent – electronic music in the form of early inventions such as the theremin³ – in their mutual insistence on sound and noise as liberating factors that challenged the aesthetic confines of words and music. The onomatopoeic nature of the text lends itself to an exploratory treatment in terms of sound rather than meaning, opening a pathway to temporal experimentation. No longer concerned with syntax and meaning it allows for the raw materials of its words to "sound". The illogical, absurd nature of the content invites a sonic treatment that likewise manipulates our sense of duration and time-space. This is apparent in both the horizontal extension and the vertical simultaneity of musical material in *Zaum: Beyond Mind*, the perception of which is made all the more clear by a spatial distribution of sound.
- 19 Historical time is confounded by colliding poetry and film from an earlier epoch with present-day digital technology, verifying that one has in fact become a temporal extension of a process that was begun by the other. The anti-narrative and anti-illusionist aesthetic of *zaum* and Vertov's *Man with a Movie Camera* go beyond reason in the same way that the digitisation of signs goes beyond time. Moreover, the two terms in question are brought into discourse through a radical re-contextualisation of the work itself. Its conception has broadened to include an evolutionary process that allows for a certain metamorphosis of content over time. No longer adhering to the notion of a fixed product belonging to an autonomous, modernist subject, an intermedial work involving performance and new technology finds itself in the more malleable terrain of emergent subjectivity and distributed cognition. As a result, the subjective is no longer experienced within previously-defined confines of time, but rather as a series of contradictions, collisions and fragments that broaden and deepen our awareness of life and art as human beings.

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NOTES

1. <http://ccrma.stanford.edu/~oded/Zaum/zaum.html>
 2. Fillippo T. Marinetti, *Technical Manifesto of Futurist Literature*, Paris: Le Figaro, 20 February 1909.
 3. Invented in 1920 by Russian Lev Termen and comprising two proximity sensors for pitch and volume, the theremin was originally called the aetherphone.
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RÉSUMÉS

Cet article examine l'effet de la technologie interactive sur notre perception esthétique du temps, à partir d'exemples tirés d'une performance collaborative intitulée *Zaum: Beyond Mind*, menée dans le cadre d'un projet de recherche par Caroline Wilkins et par le compositeur Oded Ben-Tal (Kingston University). Il s'agit d'une œuvre de théâtre sonore, comprenant voix, bandonéon, piano, musique électronique live et interactive (Pure data), chorégraphie, éclairage et film (extrait de *L'Homme à la Caméra*, 1929, de Tziga Vertov). Inventé par le poète russe Khlebnikov, le mot zaum, qui signifie "au-delà de la raison", décrit les expérimentations dans le domaine du symbolisme sonore et de la création linguistique menées par les poètes futuristes du début du vingtième siècle. Le poème "Zaum in Tiflis" (1917-1921) de Alexei Kruchonykh est la source principale de la matière vocale utilisée en performance. L'œuvre *Zaum: Beyond Mind* est structurée de manière à intégrer des éléments d'improvisation, tout en conservant un sens musical et dramatique. Dans chaque partie, la durée précise de la matière interactive reste indéterminée et dépend du sens du timing et de la communication qui s'établit entre les musiciens. Les gestes de reconnaissance qu'ils échangent jouent un rôle dramatique et fonctionnel dans la structure générale, laissant en même temps un espace de réaction au public.

In this article, I examine the effect of interactive technology on our aesthetic perception of time during performance, drawing examples from a collaborative, research-based work entitled *Zaum: Beyond Mind* with electronics composer Oded Ben-Tal (Kingston University). This is a piece of

sound theatre comprising voice, bandoneon, piano, live and interactive electronics using Pd (Pure data), choreography, lighting and film (an excerpt from Dziga Vertov's *Man with a Movie Camera*, 1929). Coined by Russian poet Khlebnikov, zaum means "beyond mind" and describes experiments in sound symbolism and linguistic creation stemming from Russian Futurist poets of the 1900's such as Alexei Kruchonykh, whose "Zaum in Tiflis" (1917-1921) provides the basis for much of the vocal material used in the performance. *Zaum: Beyond Mind* is structured in such a way as to allow for improvisational content as well as making musical and dramatic sense. In its present form three large acts trace the unfolding of sonic and visual material. Within each section, however, the precise duration of interactive material is left open, depending instead on a mutual sense of timing and communication on the part of the performers. Pre-choreographed moments of entrance and gestural acknowledgment between them serve a dramatic as well as a functional purpose in the overall framework, at the same time allowing space for reaction to a live audience.

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Mots-clés : technologie interactive, théâtre sonore, temps, performance, intermédialité, perception

oeuvre citée *Zaum: Beyond Mind*

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