Tactile Nodes: Aesthetic of discrete events in noisy domains

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Abstract

This paper discusses digital media art works from the circles *Discrete events in noisy domains* and *H Project*. *Discrete events in noisy domains* are about values, relationships and processes of the signal. Artifacts from the both circles open up and answer questions about interaction and suggest the interval spaces of contact, it's jammed, overexposed and superimposed signal. Analyzed art works open the creative potential of discarded and mainstream technologies through the multitude of fluid, aural, ocular and tactile inter-media voices that form mobile platforms. The author further discusses Jean-Luc Nancy's bodily dimension of sensing and a phenomenological account of space, the Marshall McLuhan's concept of *counter-environment* as a mode of art functioning within the culture, where art piece, process, object or relationship makes visible the invisible about the society, and the emergence of the technological uncanny, *the noir* of the moving image by Laura Mulvey.

Introduction

Discrete events in noisy domains [26] is the general framework of various ongoing small-scale events or objects organized around a paradigm of noisy domains. These events deal with the phenomenological differentiation of clear and noisy signals. Recurring ideas, which may be traced in the works that we will analyze in the following text, digital media art works from the circles *Discrete events in noisy domains* [26] [Figure 1.] and *H Project* [24], are dealing with static, communication noise and its boundaries, and the atmospheric drifting into the realms of signals and their emitters. These works are about the constant flux of rerouting.

The digital uncanny

Foreignness, the uncanny, one of Freud's significant concepts explicated in his essay *The Uncanny* from 1919, is analyzed extensively by Julia Kristeva and more recently by Laura Mulvey, among many others. The

opposite of the German adjective *heimlich*, *unheimlich* as its negative pole represents the hidden, unfamiliar, kept out of site, potentially malicious negative of the homely and friendly *heimlich*. As its negative, *unheimlich* contains within itself also the positive content of the familiar, which Freud determined to be estranged and alienated comfortable content. The uncanny, as articulated by Laura Mulvey in her book on still and moving images, *Death 24x a Second*, is *the noir* of the moving image, frozen and animated in a vertigo of shifting transversals. From this uncanny - the one derived from the eternally present photo image being constantly pulled inward from the moving slot into simultaneous presence, forcing itself towards us - we see the perpetual action of the digital creation unfolding itself in front of our eyes. Analyzing Wilhelm Jentsch's essay *On the Psychology of the Uncanny* from 1906, Freud dismissed Jentsch's insistence that the uncanny was a fear of the unfamiliar and new, as for example the automatas or wax figures of that time, and insisted on the familiar elements that are repressed in the unconscious. Where both Freud and Jentsch's stances regarding the uncanny meet was the presence of leftovers of supernatural beliefs and their lingering in the consciousness of the human mind. Electronic technology has made a significant social impact since its outset, and as McLuhan stated, "The effect of electric technology had at first been anxiety." [14] This is how Laura Mulvey explained the encounter with the unfamiliar regarding visual representations: "This kind of *frisson* can be located in the moment itself, the sudden moment of doubt, an involuntary and bewildered loss of certainty. A central strand running through the whole history of visual illusions is contained in *this* effect and its investment in *that* moment. It is instantaneous and produced by a particular encounter."[15] Artworks that use, as their main tool the invisible processes of, for example, signal transmissions, hence making the invisible processes visible, tend to work upon this uncanny in order to either bend it into creative concepts or dismiss it and shed light on its appearance within society. As Mulvey noticed regarding new technologies and the uncanny, as electricity and telegraphy, among others, first appeared, they had a tremendous impact on the contemporary imagination, fostering connections among invisible forces that animated the world. The technological uncanny emerged especially regarding the fact that technology made visible many forces that were invisible in the natural world. This technological uncertainty appeared equally among electrical tools, photography, and telegraphic communication. One of the first artworks that engaged and tried to make visible the invisible process related to technology was the Russian avant-garde choreographer, Nikolai Foregger's *Mechanical Dances* from 1923. His piece from the mentioned series depicted transmission by engaging dancers of both sexes to move in chain-like shapes in-between two dancers that served as nodes. Some examples of screen based new media art with its formal explorations insist on the changeability and co-relatedness of frozen bits that twist their seductive game of change. Similar to photography that mechanically freezes and preserves a certain moment in time, a digital screenshot freezes the continuous time-flow. Complex relations of time and space on computer screens enable the movement of bits of interrelated sensory inputs. Bits of the signal are aimed towards the senses of hearing and vision, forcing bangs in the inner sensory system. The body reacts according to the succession of bangs, opening its stockpile of stored packets of information. Indeed, this matching with previously stored bits of experience can occur in a twofold manner, closing and opening the subject towards the field of co-relatedness, where coexistence with the floating signals is prolific. Stills, solid bits of the uncanny, freeze the floating of gesture, which potentially grows or shrinks indefinitely in its search for the transparency of the decipherable. Digitally captured disruption travels by means of extended recycling towards an ever-mutating copy of itself. The actual movement goes on to unleash its potential, its true capability as a binary deadlock emitting the fuzziness of noise. Peter Lunenfeld noticed this significant point in the recent history of media imagery and located it right within the appearance of a hovering close-up photographic shot from Ridley Scott's *Blade Runner*. Made in 1982, this science-fiction thriller depicts the future world in ruins, an emerging dark, digital era that inserts us into the world of humans and androids, called *replicants*, that serve as the working force of the remains of the human species. This electronic flickering of the image, and the overall atmosphere of the decaying electronic apparatuses, robots and the outskirts of polluted and ruined cities, unleashed a whole new aspect of a negative, strange, and unfamiliar

potential future that might occur under the sign of decaying electronic and emerging digital instruments. Glitchy, electronic spikes flicker in order to accentuate the newly emerging uncanny of the apparatus, whose deep static channels hide a dangerous, unfamiliar promise. Multitudes of contemporary artists underline this uncanny side as a having the potential to unleash the signal and shed light onto its dark side. Their ideas drift towards the interlocking of meaningful shifts, which happen in the regular patterns of a signal diminishing to its own bareness, its starkness as a carrier, and its directness as its own momentary position, measured in milliseconds, in micro-fragments of elliptical movements. In no-input mixers, interactive installations, glitched images, and the granulation of sounds, artists are bending this uncanny of signals, routing the information overload, and searching for heightened noise states and malfunctions. Exactly here, in the state of malfunction, of the uncanny, representations that previously disappeared from the plane re-emerge. The aesthetic of the bent plane unfolds towards trashed data, the creative abuse of technology for diverting purposes, where micro-fragments build rhythmic images for touching and hearing.

Synaesthetic touch

With the ontology of touch and its synaesthetic action, Jean-Luc Nancy accentuated the function of frequencies and audible sounds whose anchoring purpose is to dissolve the art object into the immediacy of contact. "Sound has no hidden surface. It is like a totality of space, on the confines from the very start."[16] The sculptural action of frequencies continues to accentuate unusual temporary places made of visible and invisible tones of silent and loud glitches within synchronizations of fields. "Beyond…not even the silent attestation of the being-placed-there of stones remains truly beyond music: still, already, there is the rustling of the world, the grating, crackling, 'background' noise, the noise without noise, or, rather, even simply, the mineral stupor that is still the surprise of the world."[16] Nancy insisted on the bodily dimension of sensing. Its relation to the surrounding field of vision becomes the field of touching, tasting, sensing and meaning. "Like Heidegger, Nancy insists that we take seriously the relationship between sense and our experience of space."[10] noted Ian James in his *Introduction to the Philosophy of Jean-Luc Nancy*. Building upon a phenomenological account of space, it assumes a key ontological importance for him, the significance of the disposition of crossing, of touching, spacing, and contact. The work of art that accentuates the open structure, and opens its field for inclusion is both the clearing and the opening. "In this sense, the open, or opening, is always an opening unto, a clearing of space, which would imply a radical exteriority, an ex-centric of centrifugal movement outward, in the unfolding of being."[10] With his new proposal of a bodily ontology, Nancy underlines the relations between technical apparatuses and the body, and places it at the center of attention. It is at this surface of apparatuses that part of the touching and sensing takes place, and the opening of the body toward exteriority locates the meaning and sensing of the apparatus and the body. Nancy sees our world as a world of *ecotechnics* that function with technical apparatuses and connects us in all directions with them. "Ecotechnics…substitutes projections of linear history and of final goals with local differences and multiple bifurcations. Ecotechnics deconstructs the system of ends, it renders them nonsystematizable and nonorganic"[10]. Instead of thinking of *ecotechnics* as a ground, Nancy thinks of it as the event and passage of sense in the creation of the world. The apparatus is not a ground but an interrelatedness, through the transversal interconnectedness and its fusion with the embodied sense. Nancy is "not content to say with the, albeit important, task of questioning, critiquing, or deconstructing discourse or signifying structures. He addresses the world as finite and contingent, fragmentary, thoroughly resistant to any totalization within a system of goals or ideological forms. Yet, he addresses the world as world, as a world of material bodies which take place in a shared becoming of sense and a shared finitude."[10] As far as images are concerned, Nancy thought of images as being enveloped in a special mode of touch, as a proximity-in-distance and the force of sense. A line, a trace, both separates and connects, and presents and withdraws. The language of images is the language of contact-in-separation. Just as Peter Lamborn Wilson had found a place for images within *Temporary Autonomous Zones* as potential nodes for subversive gestures, Nancy too places them in an outward field of expansion, as a distant potential for sense-contact.

Discrete events in noisy domains

"Discrete events in noisy domains" [27] are about values, relationships and processes of the signal, and the setting of conditions where signal generation and its reception might take place. Recurring ideas, which may be traced in the works [27] that we will analyze in the following text, are dealing with static, communication noise and its boundaries, and the atmospheric drifting into the realms of signals and their emitters. These works are about the constant flux of rerouting. They come out of the relational logic among idea-drafts, their particular surroundings, which brings us to the Marshall McLuhan's concept of *counter-environment* as a mode of art functioning within the culture, where art piece, process, object or relationship makes visible the invisible about the society. We will trace the existing links that connect the certain art pieces related to use of technology in art in emancipating way that takes a positive and critical stance towards the presence of technology in contemporary society. Creative responsibility towards tools and their usage, questions of recycling, economic control, accessibility and community collaboration are some of the questions that chosen artworks deal with by creating potential for establishment of new platforms. Images, drawings, photographs, sound and objects as gestures function as mapping agents. They are on a quest for the stillness in noise and the noise within harmony, for the drop out of the regular repetitious event. Events - encoded signals of visual and electromagnetic fields preset in the atmosphere - are provoked and observed. Through intentional and arbitrary recycling, the frequencies tend to immerse themselves into each other's textures, to evaporate within another medium and occasionally to come back gradually in altered forms. Sometimes the structures of artifacts are oversaturated to the point of indecipherability. They hover above their potential meanings and play a seductive game with themselves. They seduce themselves, looping into themselves until they reach yet again the stage of being able to fabricate multifaceted configurations out of their own fundamental elements. As in complex automata, elements sometimes tend to loop, until abruptly some remote factor springs out and provokes a chain of responses. Some elements hibernate because of the span of their inner and outer circles, until arriving at a stage of soft pulsing and reverberation.

Discrete events in noisy domains might be accounted as a framework of concepts in repetition. Questions of communication within one's inner biosphere and the subject's inter-relatedness with the outer world are constantly explored. The creation of signals and their reception are part of an ongoing study of the process of establishing meaning itself - the meaning of the received signal, its transmission, of its deciphering, questioning, of its value and the value of its quality. Texture is stretched for assessment while the testing frequencies bounce through receptive channels and, in some cases, return to their starting positions, each time in state more devoid of text. Artifacts open up and answer questions about interaction and suggest the interval spaces of contact, it's jammed, overexposed and superimposed signal. They give voice to the void and evacuate the blank signal from its hovering transpositions, a state of the signal detached from its source but yet connected to it by its transversals.

The Frequency of a Space

Perfect Frequency [26] opens up space-time turmoil. Sound emanating from the loudspeakers merges with the sound interwoven with the moving image. The image freezes to stop the action and recall the *uncanny* [16] of the video image, dispatching the prospect to lay emphasis on the potency of frequencies within the space. Shifting signals create a Dionysian leap into the overwhelmingness of the recycled audio-visual space. This installation constitutes an immersive ambience where noise is taken to the apex of noiseless space. All frequencies are vacant for transmission; it is laid upon the recipient to draft the granulated signal, which drags the moving image along, into the irreconcilability of determinant digital representation. The dialectics of left and right sound channels are eradicated. Channels are molded into each other, through

shifting positions, changing directions and merging within the medium itself, before reaching the ether. *Perfect Frequency* escalates the sense of the body in space, its relation to the *other*, merging the space where the two meet and touch, and the impulse of the physical self is sent back and forth through space. Besides the ongoing spinning action outlined in the dominant white noise of radio waves, the discrete events re-emerging in the video texture of the background walls of this space installation are video images of acts of cleaning. The first instance of cleaning in the *Perfect Frequency*, or perfect noise, can be read as the disinfecting agent, the anti-bacterial hygiene protocol engaged to trace and clear the routes of humming channels. *Deadlock* videos are about the glitch of everyday repetitious behaviors. They are video studies of instructional pictograms. The recorded action searches for the evacuation of meaning of the hygienic act in a loop, distancing the effect of the all-too-familiar operation and a continuum filled with anti-bacterial skips flowing from the space-time grid. *Perfect Frequency* questions how it is possible to function within the everyday context of looping actions; it questions inter-subjective glitches, and their stabilization and alignment with the daily amplitudes of routines. Video works portray inner monologues of repetition caused by external necessity, opening a subjective, conflicting position of the private in public. Hygienic cleansing stretches communication cycles. The installation contains no distinct line between the inner and outer spheres within the space of action. The questions at stake here are how and why to trans-code frequencies, how to trace and map them, and where the borders are of the freedom of interpretation of everyday frequencies.

Pictograms [24] [26] emanate a soundless sound. The resonance they radiate is an arctic one, the hum of a surface and its inscription intended for abrupt and immediate response - for in pictogram concealment, there is nothing left over to be questioned. They glow with Baudrillard's notorious ecstasy toward communication; they exist only to convey a message, the memo of a command. But, there are additional deposits behind this hysterical facade. There is something making the pictograms glide from their bold graphic determining lines into the radiance of the topos, and making them move beyond the excessively logical continuation of cruelty and frostiness of technical and instrumental thinking. They convey supplementary texts through their cold incisions of black lines on white surfaces. Within minimal time scales, they emit additional frequencies underneath the superficial and apparent ones. From within the focused action, there is another action taking place, the act of cold incisions of pictograms imploding into themselves. The structure of lines constructed for handing over a quick message is not unaccompanied. Carriers of the totality of messages are on parallel bandwidths, emitting the impossibility of significance being stripped of all erosions, of difficulties in conveying meaning. It is exactly this emptied imageless-ness that is full of trash, largely disturbed and full of noise. A flawless line on a faultless white background is a perfect frequency, and as such it is indeed full of hums, voices tamed for the sake of the curve and vertigo of the fold of a line. So where does the typical pictogram line stand today and what is it being used for? Digital image tracing features are getting more and more advanced, and the task of the perfect line necessary for the sufficiency of clear meaning in visual terms is done immaculately by various software programs. Still, the accuracy has to be supervised and corrected by a human "factor" because only the human "factor", in itself, can determine whether the message is appropriate for the final, brutal instructive emission from a box, a label, or a can. These are the common habituations of emblematic pictograms. They glance at us in transition. They flash their jump out of privacy, their rigorous empathy and open wish to help. They are indexed as someone's distributed signal for conveying gazing assistance. They trace our future action for us, in front of our eyes. All we have to do, before we get to the point of action, is to take a look at the helping hand (which draws the ever-clear pictogram for us) and follow the action. We are supposed to obey the drawn action if we hope and want to make good use of a certain product. And this is exactly what we do. After instantaneously perceiving the vision-instruction, we jump into the process, repeating exactly what we have seen, and this is precisely the place where error usually occurs. When mimicking the observed simplified action, trying to replicate the event, a great error occurs. The action is never as bare and clear as in the image. This double vision of the event and its drawn precursor is

synchronicity within itself, but without the factor of the unknown. It is synchronicity minus a causal event, because everything here is causal, clear and laid out. A pictogram, therefore, carries within itself the echo of a repetitious movement, repeated for the sake of performing an action of instrumental reason, but always with the factor of erosion and deviance taken into account. Hands and heads in movement, performing micro-actions, squeezing, pulling, swirling, are all potentially hazardous, because the embryo of noise generation in repetitious action is omnipresent. Every time we notice a fastidious and painstaking pictogram gazing at us, we should bear in mind this potential for noise; for such an unmistakable drawing, handing over such a spotless significance, can only incite a single thing - erroneous action on our part.

The distribution of information within a particular social space envelops snippets and packets of data. Frequency domains and their variables are full of dispersed floating fragments, forming ever-changing clouds of information. From this it is possible to resolve that this constant traffic is made visible by means of capturing and transforming random data from our surroundings. Info-dust is the thick layering and lifting of pulverized electromagnetic impulses, the insertion of the contemporary human into info-scapes. *Discrete events in noisy domains* deal with random locations of info-dust. These drafts-objects-scapes are about the routing of signals, data-bending and its relation to the body. The scapes where the body meets space with all its signals are intensified in order to be discerned and experienced.

Discrete events in noisy domains

Discrete events in noisy domains [27] is the general framework of various ongoing small-scale events or objects organized around a paradigm of noisy domains. These events deal with the phenomenological differentiation of clear and noisy signals. *Extagram/Oscilo* [20] [21] [22] [25] [Figure 1., Figure 2., Figure 3.] consists of a multitude of objects incorporating custom-designed electronics that map the site-specific space with sound and video images. These pieces elaborate on the density of *core* space within noisy habitats, its data-flows consisting of sound and visual transmissions and its hums and oscillations. Pick-up microphones, sensors, and a video camera gather these various audiovisual sensations from a usually invisible core.

Objects from the *Extagram/Oscilo* series [20] [21] [22] [25] address and question the main features of contemporary toys by means of close personal contact through touch, simplified cute shapes, and the construction of micro-worlds through modularity and limited, mostly sound-based interactivity. *Extagram/Oscilo* sculptures are built through a bending of visual and sound data via generated and routed signals. This flux of data is sometimes paused in order to enable insight into the uncanny events of the digital and analog signals, and into the aesthetic of the corrupted data. The toy-like, soft, and plush sculptures from this series consist of several non-linear sound and video systems. They recode real situations into a broken data stream of glitch sounds. By touching and moving the stuffed toy-like objects, visitors create or affect the already existing sound. Objects are de-characterized by an absence of any facial features and by the uniformity of the black fleece texture they are made of. They are variable in terms of dimension, entirely hand-made and hand-sewn, stuffed with sanitary cotton, and contain various electronic components that generate sound and video output. The length and intensity of the tactile contact affect the produced sounds. The paradox of the interactivity of this series is explored by assigning almost indistinguishable sounds that become noise whenever there is an interaction with the sound sculptures. Close contact with the user is monitored by means of a real time video system that is routed through one of the toys containing a video camera that captures the signal from the space and sends it to a computer where it is processed and transmitted to the screen of another toy-object. Insight into the textures and landscapes of the toy micro-worlds is provided by means of a micro camera that captures the surfaces of the toy-like sculptures.

Conclusion

Discusses digital media art works are about values, relationships and processes of the signal, and the setting of conditions where signal generation and its reception might take place. Objects as encoded signals of both visual and electromagnetic fields - are observed and analyzed. Artifacts from the both circles open up and answer questions about interaction and suggest the interval spaces of contact. Analyzed art works open the creative potential of discarded and mainstream technologies through the multitude of fluid, aural, ocular and tactile inter-media voices that form mobile platforms. Their aim is not to freeze but liberate movement, time and relation in a *counter-environment*.

References

1. Attali, Jacques. "Noise: The Political Economy of Music". (Minneapolis, London: University of Minnesota Press, 1985.)
2. Bey, Hakim. "T. A. Z. The Temporary Autonomous Zone, Ontological Anarchy, Poetic Terrorism." "Hakim Bey and Ontological Anarchy: The Writings of Hakim Bey". 1985, 1991. http://www.hermetic.com/bey/taz3.html#labelTheNetAndTheWeb (April 14, 2007).
3. Cascone, Kim. "The Aesthetics of Failure: "Post-Digital" Tendencies in Contemporary Computer Music." *Hz Journal*. 2000. http://www.hz-journal.org/n3/cascone.html (January 20, 2008).
4. Cubrilo, Jasmina. "Fictional Dictionary, second part." *Perfect Frequency*. (Belgrade: DOB, 1998.)
5. Flusser, Vilém. *Digitalni Videz*. (Ljubljana: Studentska založba, 2000.)
6. Flusser, Vilém. *Memories, in Ars Electronica: Facing the Future*. Edited by Timothy Druckery. (Massachusetts, London: MIT Press, 1999.)
7. Flusser, Vilém. *Writings (Electronic Mediations) *. (Minneapolis, London: University of Minnesota Press, 2004.)
8. Hegarty, Paul. "Full With Noise: Theory and Japanese Noise Music." *CTHEORY*. Edited by Arthur and Marilouise Kroker. August 11, 2001. http://www.ctheory.net/articles.aspx?id=314 (February 6, 2008).
9. Holmes, Thom. *Electronic and Experimental Music, Pioneers in Technology and Composition*. (New York: Routledge, 2002.)
10. James, Ian. *The Fragmentary Demand, An introduction to the Philosophy of Jean-Luc Nancy*. (Stanford, California: Stanford University Press, 2006.) p.80, p.100, p.145, p.151
11. Kahn, Douglas. *Noise, Water, Meat, A History of Sound in the Arts*. (Massachusetts and London: The MIT Press, 2001.)
12. Kroker, Arthur and Weinstein, Michael A. *Data Trash, The Theory of the Virtual Class*. Edited by Arthur and Weinstein, Michael A. Kroker. (Montreal: CTHEORY Books and NWP, 2001.)
13. Lunenfeld, Peter. *Snap to Grid, A User's Guide to Digital Arts, Media, and Cultures*. (Massachusetts, London: MIT Press, 2001.)
14. Lunenfeld, Peter. *The Digital Dialectics, New Essays on New Media*. Edited by Peter Lunenfeld. (Cambridge, London: The MIT Press, 2001.)
15. McLuhan, Marshal. *Understanding Media*. (Abingdon, New York: Routledge, 2006.) p.29
16. Mulvey, Laura. *Death 24x a Second: Stillness and the Moving Image*. (London: Reaktion Books, 2006.) p.42., p.37-38
17. Nancy, Jean-Luc. *The Sense of the World*. Minneapolis, (London: University of Minnesota Press, 1997.) p.85, p.87

18. Sambolec, Duba. "Tour / Detour, Helium, a sound art series in 5 parts on the internet." *Ballongmagasinet*. Ballongmagasinet and NIFCA. 2002. http://www.ballongmagasinet.com/helium (2004).

19. Sheuermann, Arne. "Ground Control: Four Reflections on Tanja Vujinovic's Paintings." *Ground Control*. Maribor: MKC Maribor, 2001.

20. Vujinovic, Tanja. *Extagram 1*. 2007. http://www.exstat.org/extagram1-2.html (January 12, 2008).

21. Vujinovic, Tanja. *Extagram 2*. 2007. http://www.exstat.org/extagram2-2.html (January 12, 2008).

22. Vujinovic, Tanja. *Extagram 3*. 2007. http://www.exstat.org/extagram3-2.html (January 12, 2008).

23. Vujinovic, Tanja. "Ground Control: Statements about Works." *Ground Control*. Maribor: MKC Maribor, 2001.

24. Vujinovic, Tanja. *H Project*. 1999. http://www.exstat.org/h-project-2.html (January 12, 2008).

25. Vujinovic, Tanja. *Oscilo*. 2006. http://www.exstat.org/oscilo2.html (January 12, 2008).

26. Vujinovic, Tanja. *Perfect Frequency*. 1997. http://www.exstat.org/perfect2.html (January 12, 2008).

27. Vujinovic, Tanja. *Discrete events in noisy domains*. 2006. www.exstat.org (January 12, 2008).

28. Vujinovic, Tanja. *Video and sound works*. 2007. http://www.exstat.org/video-sound-2.html (January 12, 2008).

29. Weibel, Peter. *The Noise of the Observer, in Ars Electronica: Facing the Future*. Edited by Timothy Druckery. (Massachusetts, London: MIT Press, 1999.)

30. Youngblood, Gene. *Expanded cinema*. (Toronto and Vancouver: Clarke, Irwin & Company Limited, 1970.)
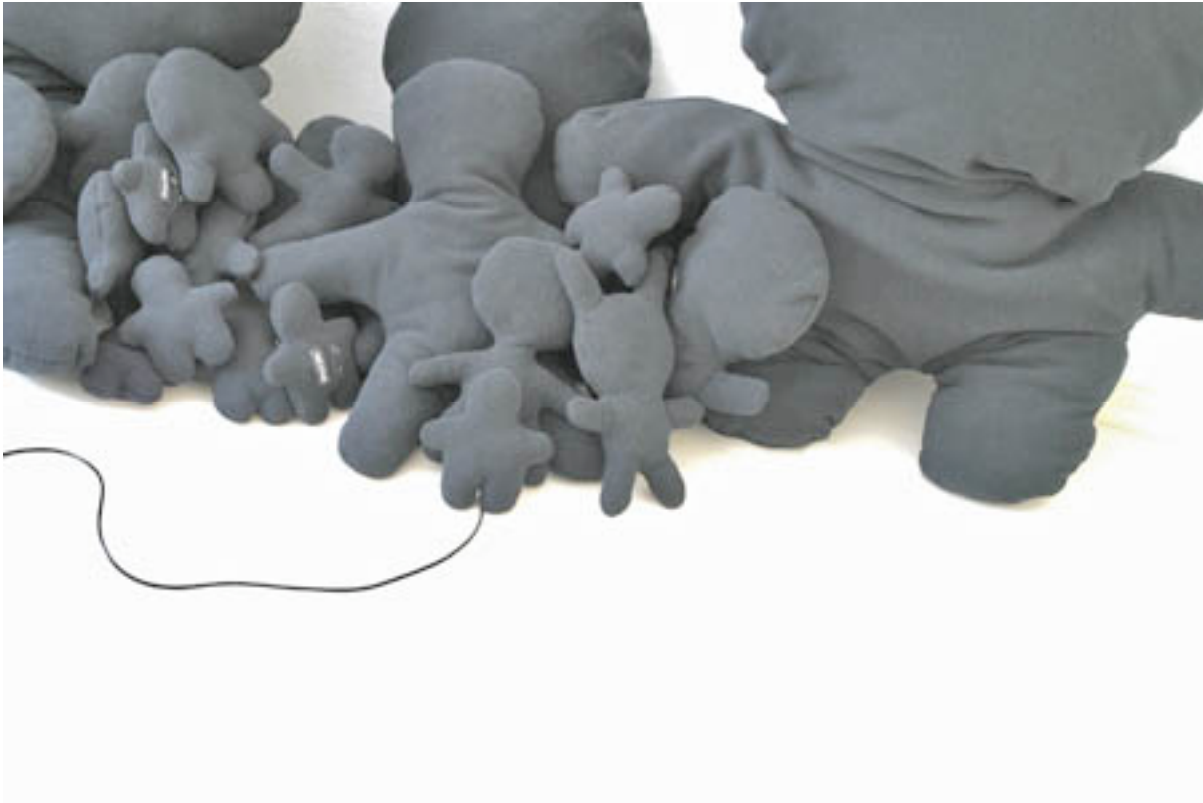
Figure 1. Oscilo by Tanja Vujinovic, soft plush objects, custom electronics, audio mixer, app. 50 pieces, variable dimensions, 2007 Copyright © Tanja Vujinovic

Oscilo consists of objects which each provide a different kind of sound by means of touching or moving objects that contain pick-up microphones, miniature sound producing devices, or loudspeakers. The length and intensity of the tactile contact affect the audio signals produced.

Figure 2. Extagram 1 by Tanja Vujinovic, soft plush objects, custom electronics (sensor, video monitor, loudspeakers), computer, 6 pieces, variable dimensions, 2007 Copyright © Tanja Vujinovic

In Extagram 1, close contact with the user is monitored by means of a real time video system that routes the contact through one of the toys containing a video camera. The toy-sculpture captures the signal from the space and sends it to a computer, where it is processed and transmitted to the screen of another toy-object.

Figure 3. Extagram 1 (detail) by Tanja Vujinovic, soft plush objects, custom electronics (sensor, video monitor, loudspeakers), computer, 6 pieces, variable dimensions, 2007 Copyright © Tanja Vujinovic

The toy-sculpture captures the signal from the space and sends it to a computer, where it is processed and transmitted to the screen of another toy-object.