LIFECLIPPER — COMMONALITY IN IMAGES

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Abstract

lifeClipper explores the potential of so-called augmented reality technologies for staging outdoor public spaces by real-time transformation of a audio-visual stream. Additional information, both content and rules triggering the behavior of the content, are placed throughout the location staged by lifeClipper. We introduce briefly into the technological and conceptual basics of the lifeClipper concept, give a short history of our projects and then sketch the vector for our future work: what does it feel like to be the network. In the main part of this paper, we develop a future scenario of a descendant of this technology by taking the stance of an backward projected perspective. By means of creative writing we try to provide the unique feeling when diving into a lifeClipper experience in the year 2021. Finally, we briefly introduce the phantastic-philosophical concept of "connootion," which describes the particular topological experience of thinking literally together, provided by linked brains on a common lifeClipper playground.

lifeClipper as a Tool

lifeClipper is an ongoing crossover-project in the area of design research and art, directed towards the exploration of the potential of a wide range of digital technologies for outdoor augmented reality (AR). Its basic mode of work is to overlay a real-time video stream captured from a mobile, head-worn camera, with virtual content or transformations of the video stream. Based on the exact position, which is calculated from a high-precision GPS signal, and direction sensors (Intersense Inertia Cube) the user may experience an augmenting and location-specific rendering of her subjective viewpoint, provided through a head-mounted-display and earplugs. All of the technical equipment is built into an easily portable setup. Thus the user is allowed to move rather freely around in outdoor sites, while being nevertheless fully immersed into an artificially rendered stream of audio-visual perceptives. The visual engine has been instantiated using specialized software (Virtools™, MaxMSP™, proprietary software plug-ins programmed in our labs). That visual engine also accesses a library of virtual 3D-objects—e.g. architectural, archeological, biological or even phantastic specimens—and 3D-renderings.

lifeClipper thematizes the user's habitual way of seeing by re-arranging and re-mixing the "natural" stream of audio-visual percepts. It clips content—documentary, informatively visualizing or phantastic—into the experience of a real location. Furthermore, pressure sensors on the shoes or other biofeedback devices (e.g. skin resistance, heart frequency or breath) are capable of providing an affective relation to the re-mixing of the data streams. The user can experience a rendering of her subjective viewpoint in an augmented as well as location-specific, personalized and—if they interact with other "playmates" strolling through the same areas—even socially dependent way. What used to be an immersive film-like, but still somewhat private experience in the first versions of lifeClipper, has thus changed into that of a promenader being freely able to stroll throughout a territory.

We call these territories "play-grounds," emphasizing the social dimension, which clearly escapes the somewhat solipsist, solitary walks of a single lifeClipping individual. The renderings and re-mixes of the player's experiences are partially also dependent on the behavior of the "co-clipping" individuals, and the distances between those "playmate(s)." On a common playground, several individuals can develop a particular choreography of subjective impressions, which are elicited by the group as a whole.

Regardless of which particular purpose a lifeClipper setup serves, arranging a site into a common field of possible actualizations provokes intense empathy with the location, with its history as well as with its potential future. And the same goes for one's own visual activities. An emotional bonding takes place, which may also be helpful for the purposes of training or learning, both in the traditional sense as well as in the sense of dedicated perception re-shaping.

The lifeClipper Concept

Over a series of projects, and also according to the road-map of further development, lifeClipper investigates the potential of Augmented Reality AR for staging public spaces. lifeClipper is interested in finding a "design language" or "pattern language" for instantiating re-mixed audio-visual or even affective experience.

If considered seriously, this gives rise to questions about the status of images. There is no doubt that images lend themselves extraordinarily well for helping us to out-of-the-box thinking, to break free from habitual ways of ordering our impressions. There is a strong power to images—it is, for example, really hard to resist the "invitation" of an image we may encounter in our everyday lifes to affect us, even that of a monochrome plane of color. Images seem to activate some sort of deep processing in our minds, even pre-linguistic processing perhaps. The future vector for lifeClipper projects clearly pursues that interest. How can this mode of deep processing, triggered by junks of dramatized sensory stimuli, be opened of for social experiences that transcend those proper to ourselves?

History of Applications

lifeClipper started as an outdoor art project in the St Alban valley in Basel, Switzerland, where Jan Torpus offered audiovisual walking experiences in the virtually extended reality of that historically rich site, with its remainings of the ancient city wall, the walking path along the Rhine river, the museums and the
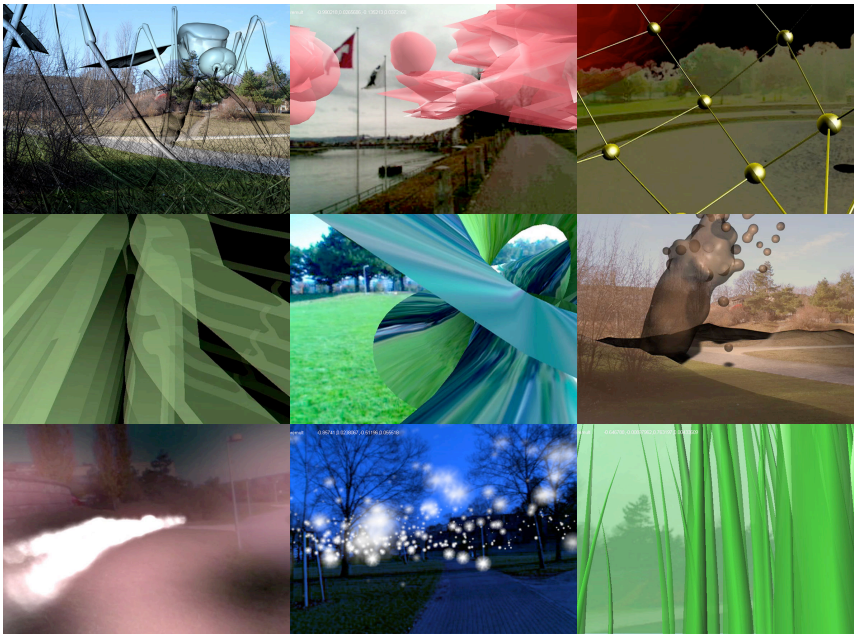
Last updated on 30 September 2009

Fig. 1. Sample of implemented scenes from the lifeClipper2 scenario "playground." (© Jan Torpus and Vera Bühlmann. Photo © Jan Torpus)

churchyard, as well as all the poetry and saga devoted to that location throughout the city's history.

At a later stage, lifeClipper developed into a larger research project supported by academic as well as economic and cultural institutions, where also potentially commercial applications were explored. Around Novartis Campus in Basel, Switzerland, for example, lifeClipper cooperated with the archaeology department of Basel University to visualize in an immersive manner the ancient Celts' way of life. lifeClipper staged their way of building shelters, of cooking or gathering around a fire—in the very locations where they actually did settle, hundreds or thousands of years ago, in an area where today the main highway linking northwestern Switzerland to Germany leads straight through. Another lifeClipper scenario helps the planning and communication process of building the Novartis Campus as one of the world's gravity centers for pharmaceutical research and education. lifeClipper cooperated with involved architects and planners to stage the models of houses and site planning in an experiencable way.

How does it feel to *be* the network?

As soon as lifeClipper is used as a tool for collective re-mixing of individual audio-visual re-mixes, private intentions and group behavior are arranged in a completely new way. A topological world emerges, a co-constitutive visual environment, by sharing their audio/visual experiences and recoding it into 'games,' much like Wittgenstein's description of language games. Particular visual plays emerge, with own rules, an own dynamics, and an experience impossible to gain otherwise.

Within such a scenario, AR technologies allow for topological arrangements on the level of co-perception and even co-sensuality: My own eyes in my body can be networked with my playmates' eyes in their bodies. Such a trans-individual space of experience cannot be navigated, it has to be inhabited by wayfinding, choreographed as a continuous becoming. Needless to say that such spaces are not going to be Euclidean any more. Playgrounds may well be (semi-) virtual themselves, distributed across a communication network spanning any distance around the globe. Such a "collective sensory membrane" would very likely provoke new modes of cognition for us. How do we think, and more exciting even: how do we want to think, once we realize that we are the network?

Introducing the social dependence of the transformation and the sourcing of the audio-visual stream has already led to the request of coupling it more tightly with the brain itself, let it be external brain interfaces or even neuro-implants, either into the brain or to the periphery of the body. It is very exciting to anticipate lifeClipper playgrounds where people experience more or less directly the activity of their colleagues' brains.

Picturing the Fantastic

Projecting the lifeClipper concept far into the future, let us say, to version X in the year 2021, we can imagine a completely different mode of dealing with audiovisual content in general. However, there is a major difficulty when it comes to describing this: we haven't really been able to experience it yet. Therefore, in the following we will delve into an attempt to "picture" our imagination by speaking about it.

We composed a fictive interim report of an experience we refer to as a "social gathering session," which in a concluding part we then discuss and reflect by some sort of "fantastic philosophy." We call it fantastic because even though the references we make are real, and collected due to serious considerations, the composition of philosophical stances we draw together might not be clearly compatible with contemporary philosophical common sense. But we agree with Michel Serres [**1**] when he says: "*It could be said that literature gets through, where experience sees an obstacle.(…) But only philosophy can go deep enough to show that literature goes still deeper than philosophy.*"

The Interim Report

Yesterday, while still returning home from a connootive gathering in Broome Street, it happened that I found myself searching for a particular note on a small piece of paper, which, I guessed, should be related to the very fact of our gathering. After all, it somehow seems quite strange that we gather for discussions physically, I mean, moving our bodies to a more or less defined spatial enclosing, given the possibilities of topological brain networking (TBN).

In my opinion, a patchwork of reasons may be responsible, matters of trust, preserved privacy outside the gatherings, response times and the surprising self-organized criticality of the group, maybe. Despite this, many still prefer to attend gatherings on lifeClipper playgrounds for many types of work, at least for work of the more interesting type, and to perform TBN sitting close to one another.

For example, after the epistemic quake that happened some years ago, and probably still has not halted, words like "enclosing," or "spatial," or "physically," among many others, bear such completely different meanings that

only some people can remember, and imagine, the past, which actually is just some 12 or 15 years back. This way, gatherings have replaced meetings, not just concerning the language game, but also as a more playful, open way of mixing minds. As a practice, they also rendered the concept of "relation" in a way to let it appear as a strangely ancient word, much like "king," or "princess."

During the gathering mentioned above, from which part of my "me" has returned, someone brought up the crazy idea of trying to translate the contemporary epistemic givens into the ancient ones, especially regarding the role of the visual senses within the dynamic play between intuition and construction. So, "ancient" does not really mean ancient, it just feels a bit so, we generally refer this way to the era of the first serious rise of the internet. Many dismissed that idea, since even translation between contemporary languages from close-by cultures meanwhile had to be recognized as impossible [2].

Others favored the undertaking because the resulting comparatistics might be quite valuable, representing a kind of media archeology, since there are still people who "know" both worlds, the former and the contemporary, that such a project could be important for research about further development of connootion as well as for dealing with future changes. Finally, we decided to proceed, and to prepare some material. So here comes first an extract of one of the attempts of that translation project, followed by some reflections about it.

A Sample Experiential Record of a lifeClipper Session

We didn't really have the impression of being suddenly in this town reminiscent of Italian baroque, although none of us might have sensed a persistent nearing, a definite act of entering. It was rather like various, initially heterogeneous bubbles fusing into one. Along with the densification and amalgamation of that bubble mat, we lost the reciprocity that we used to feel for some moments in the beginning. Thus, I shall do my reporting in singular form from now on.

The town, recently, and for an indefinite period of time your town, is one of images. Attachment flowed from the remembrance of familiarity with the surroundings outside the walls. The town was situated on a high cliff, securely above the shimmering layer of fibrous light spread over the plain this time of the year. A sanctuary for painters, photographers, woodcutters, plagiaries, sculptors, relief carvers, death mask makers, moviemakers and movie-presenters, bronze sculptors, memorial designers. Not Tivoli, however. No landscapes of Southern gods for Northern artists.

The plateau is karstic, barren, dry— denied the plainy privilege of a river. The mark of this pictorial town is its ethereal air, which touches our alien newcomer (you?) with long, elegant, sensitive, demanding fingers of varying temperature and density—fingering her, as it were—, warming the shoulder, fanning the brow with colour coolness, sensuously cuddling the nape.

And picture that the town is without sound. Not silent, not mute. But toneless. Streets, lanes, passages between buildings, quiet, speechless, but replete with pictures, spawning pictures in town folk's worlds. The ubiquity of pictures is not competing with the universe of sounds, of music, speech, din. Pictures are simply the sole reality—here, in this place. Nothing else matters. Nor is the convisceptual world (in this sense, in this very sense!) of this ethereal cliff town off-side of any howsoever presumed equilibrium. It can't be different. Aren't, after all, word-begotten ideas and ideologies forever pressing for the burning of icons? So, do language and images have it in them to coexist—over time, for ages, for beyond human-like ages?

In this town with its particular intuitional forms and visual personality, images are spontaneously pullulating at every step; indeed turning oneself into a picture, merging as it were with the general mode of visual intuition comes naturally. Harmoniously, the feeling sets in that it is not images that are tyrannical, but sounds, motions, rhythms. And so the diktat of time is stripped of its absolutist traits so familiar from home.

The rhythm of a picture in all honesty is but dependent upon the beholder, unlike the archaic (and how archaic to you is now the memory of the world of remembrance of the places prior of your wandering!), nay proto-human shamanic structure of the drum and indeed of music. The equidistance of time vanishes, time layers and sheafs appear, you apperceive iconic space being folded into the structures of time spaces, and in recent weeks you learned to select the time space that would then be most congenial to you, to wander to and fro, and meet up in those spaces with those who happened to have chosen the identical space like you.

In this town of image-times it just occurs, it is just normal, just accordant to the structure of forms of intuition, to be picture-giving and bearing and being. Every one to all others. To release the pictures into the cosmos of pictorial intuitional perception.

To let out-pictures become in-pictures, to pass in-pictures along as dreams, to create space-pictures, present the community with picture spaces. You let yourself be photographed, painted, cast in bronze; in naturalist fashion, distorted video, abstract relief, or cubistically harmonized. And the most astonishing thing at all—will you later think, after your return (which?) to your former home (which?) —, the most astonishing thing at all was the sensual experience while picture-giving, reflecting, a model molding into effigy.

The photographers, painters, sculptors created a likeness of your physis, your appearance, your intimate colors, patterns, parquets, and your senses were listening to it. Your skin felt the brush stroke directed at the canvas, every one!; waves in the streaming light were changes in density to your thoughts; and the sculptor's chisel a faintly tearing massage, and so on. The universe gathered into pleats, and perceiving these pleats; no point unattainable anymore within imaginable time. Loss of beat a time-saving for thoughts and bodily feeling. Transcending of time as only— in the world of acoustic primacy—for short moments of exalted corporeality.

The images, not the passive, memorized ones, at least not in the first place, of the pictorial cosmos, the ones actively shaped, energized, erected, painted, or freely turned over to general penetration within the multitudinous time-spaces, these images evolved into a congealing aerosol of pictorial sequences, narrations, renderings, hardly allowing of worded description.

This aerosol of stratified pictures seemed to be alive, had perhaps indeed come alive, feeding upon the industry of all the inhabitants of the picture-cliff, upon their energy, their sedulousness, upon the representative atoms of the oils, abstract sculptures and tangible statuettes. At times it appeared to you—and what an incomparable sense of bliss!— as though you might, for moments, be a deliberate part of this floating form (a nobler one?) of being, in which picturers had the art of wrapping up, into their very own tales, accommodative spreads

like springy ice floes, drifting, piling up (yet, indeed, not hard and delimited).

Given some training (many inhabitants of the town were certainly trained, for why else would they have given themselves so zealously to picturing?), it was possible at least to participate passively in the pictoric aerosol, in that speechless yet not wordless space of common visual conditioning intuition.

And still, long after having returned, a cosily pleasant virtual shudder will pervade you, no more locatable (in contrast to normal shuddering's wave-like spreading over the body, no less pleasant, perhaps, but quite locatable) than the tales emerging from the picture floes and being kept alive through the picturizing of the ethereal town's inhabitants. Might it be that the cliff, as a magic locus tying together ages and time, made use of the town, made use of the inhabitants with their unrelenting picture-making, itself in greed of their picture aerosols as providers of stories to have, stories to think over? But that would be off the mark, as you admit readily.

After your return, you will perhaps have described it thus: actually, it was the picture-aerosol. But hardly any one will understand (how would one!). Then you will, again perhaps, for so far you don't even know yet whether you will be returning (capable of returning?) anywhere, take some steps back, in order to coerce the indescribability of the aerosolic pictorial cosmos, part of which one has become, into the words' realm of shades.

It all began, you will one day maybe gingerly be saying, with the non-difference between when I was being painted and when I was painted, being depicted and was depicted, in so far as the depicting itself, the moving positioning draught of the depiction tools, the brush the chisel, nay the very tub with incandescent smoky sparkling white bronze being poured into the mold, your mold, was a physical, a sensual experience. Even the corporeal dimension of the very depiction process was magnificently suited to seduction, not time-bound, but unrestrictedly. But through this uplift into the pictorial cosmos, a new existential form opened up. What was it like? Most probably you will not be capable of describing it (even as you still believe to be feeling it).

However, there was still that other access to the picture cosmos, in whose forms of visuality one felt so wonderfully secure. In directly inverted reactive proportions physically experienceable tenderness and ecstasies (as well as sometimes their mental sisters) enabled sudden materialization of real images, thus achieving admission to the pantheon of drifting iconic floes—on to general visualization then, at least of the more energizing physical real-worldly contacts.

Aerosol: prerequisite and destination of ongoing contentment (at least?) in one. In my capacity as narrator (or rather retailer) I should well comprehend the role of the picture-aerosol as abstract, yet not (never?) as a practice, and indeed I don't comprehend it even now. Starting from the picturers, just feeling the brush stroke (and the next one, and the one after that…

I readily admit that the familiarity with aerosol congealment was not without its coloring, which extraneously we call erotic. And there is nothing there to wonder about, since we lack so far another word for such fluid discussing of immunological circumstances, which clearly have to make do without clinging to the illusion of "skin," so radical a materialistically founded density-limiting boundary. It is probably for the same reason that notions such as interface and interaction prove so utterly inappropriate, dissolving, as they do, the moment after their arrival. And how to talk of identifiable "intervals" while every moment and every point may elicit a stream of manifoldness from any aerosol droplet?

Interestingly, the perception of the other as well as one's perception proper, remains intact, maybe because even here, between the streams of picture floes, a dearth of picturers appears that voids the request for control all across the town. And above that, one's own mental *pictorics* are merged into the swirling aerosol of picture-jelly floes, mixing and multiplying in the collective awareness of the town.

Even stories pass into common property all right, in the entirety of worlds. What is seemingly private gets passed along, and virtually becomes public property through gossip gaping questioning and obscenities in an illusionistic gesture. (This triangular relationship, this singular, incomprehensible, that tragic, this inevitable death of close ones and anonymous fellow men alike, but also, mirrored as it were, on the rear side of light, this unexpected love, its tragic absence, that tragic mishap, or the endless variations of solitary nocturnal taxi rides across nightly metropolitan soul-deserts.) The very moment the story is released, it emancipates itself. The talking, rumbling and winking forever generates new pictures, following the place and time and person that is involved, thinks about it, discards it, passes it on. The images of such stories, however, remain solitary, and drain away soon in their hosts, in their parents.

This is not the case of the picture streams of the ethereal town. The pictures are not individual public property; much rather, everyman partakes in the same pictures, and when privatized, then only for a short time, and soon released again by each one, back into the available cosmos, and soon flowing back again, gliding, often pulsating, and sometimes ranting.

Picture town, atop of the cliffs, in the ethereal air, removed from materiality, from grave lowland inevitability, aloft, living vinelike upon dew, the dew left behind nightly by the maelstrom of the picture floes (picture floes, on colliding, did release some mist, rather dense where it originated, and out of these numerous little mists came that dew), this town showed (showing, as one would say, see here!) one of the possibilities. It even lived it.

The releasing of private pictures into the collective cosmos fed back upon the generators, every one of them, whenever he, or she, or it, was in want of it. Neither the intuitional forms of visuality were therefore a given (as with Kant, the powerful master of words), nor was the idea extant, any idea of anything, well-formed before the event (as with Plato, his Scylla-like companion), before admittance, discharge, before use (profane, but to the point).

There is simply no idea of its own, not for the inhabitants, nor even for yourself, or, more to the point, neither the idea nor the self was extant in that iconic ether inasmuch as something concrete, at least not in a coherent, continuing fashion. It appeared as though the ancient (divine?) word *panta rhei* had found its human, intended, thus: worked out! materialization. (For divine is not equivalent to: unchanging.) On entering the image-potent town, you lost the notion of yourself, that precariously only just fixed idea. The swap however was not a bad one, at least for the duration of your visit as a wanderer, roamer in this town: having lived the primeval being in picture form.

Networks, Connootion and Mediality

What is nowadays, in August 2021, practiced routinely as topological brain networking is the explicit technical realization of the network idea [3], folded closely into the brain dynamics, the mind, itself. We have enabled the human brain for conscious networking. Emphasis is not on a large bandwidth directly connecting the brains, however. Instead, we generally use a detour through the visual senses. This not only offers the possibility of inserting an extra-species, an external non-human instance into the social group, i.e. a link to a database and the corresponding associative services. The main effect of this was, as we have luckily, happily, discovered some months ago, the particular synesthetic and co-rational experience described in the report above.

This discovery was indeed a playful one. Where does such thinking take place? It is not a silly question to ask about the space of thought, even though already Wittgenstein held that meaning can have no mental basis. Of course, there are some processes in our brain without which we cannot think. But this does not answer the question about the where and the how this thinking actually takes place. Sloterdijk opens his Sphere trilogy with the radical statement that there cannot be no such a thing as a single brain [4]. The co-connected-co-working brains create a kind of non-human instance [5], something that transcends the individuals without reducing them ("non-human" does not mean anti-human nor even trans-human).

These have been the starting points, giving way to the term "connootion," the particular way of collaborative thinking, meaning literally *to get an idea and reach understanding via a collectively and dedicatedly created "nous,"* νόος. It refers to anything between creating order from primary chaos to the rational part of the soul, starting with Hermes and Anaxagoras and not ending with Peirce and Serres. Thus, it does not simply mean a kind of "swarm intelligence," of course not, since in this case the elements are really stupid (mechanical). With human brains as the element of a "network," it can be somehow different, obviously. Connootion also refers to the vanishing of Kantian apriorisms, since we can design those and choose from an open set of forms of construction. Connootion is not the end of human history but its beginning, Hominiscence,

in short [6]. The connootive experience as made explicit by lifeClipperX also demonstrates not only the Deleuzian differential of language and images, transcending as it does, the differences between language and images. It also renders experienceable the primacy of performance and experience over logics, another gem of Wittgensteins philosophy [7]. Or, expressed as a quasi-Mendelian cross-breeding of Deleuzian and Wittgensteinian thought, connootive practice hints at the necessary primacy of the performal. All this has always been (like that). Any story, spoken or written, any piece put in music or programmed into DNA, has always been a network [8,9], able to store and process on its own, invisible for the network itself. And invisible for most of us as well.

Today, there are many courses teaching the art of becoming part of a Deleuzian seething of bodies, contributing to the emergence of a logic of sense [10], mediated by the lifeClipperX technology. We observe the emergence of a new epistemic form, concerning both intuition and construction, literally as "thinking inside images." And not really surprisingly, the lifeClipperX gatherings in particular prepared playgrounds (providing computer-based databases—since the plans to use junk-DNA for storage had to be dropped—, computerized associative services, video streams, etc.) that already have been called the basis for a new kind of media or mediality, which we shall be about to populate and inhabit [11]. Perhaps we will once call our time the beginning of the *metalithicum*.

1. Michel Serres, *The Troubadour of Knowledge*., (Ann Arbor: The University of Michigan Press 1997 [1991]) p.65.

2. Quine's hypothesis claimed that it is impossible to translate between languages given the available empiric observations, e.g. provided by the text or by the hermeneutic surroundings of a text. W.V. Quine, "On Empirically Equivalent Systems of the World." Erkenntnis **9** (1975) pp. 313-328.

3. Linda M. Harasim, "Networlds: Networks as Social Space," in: *Global Networks: Computers and International Communication*, ed. Linda M. Harasim (Thousand Oaks, CA: Sage Publications, 1995) pp. 15–34.

4. Peter Sloterdijk. *Sphären I-III.* (Frankfurt am Main: Suhrkamp Verlag, 1998-2004).

5. Eugene Thacker, "Scenography and the Question of Intentionality." Vera Bühlmann, a conversation with Eugene Thacker, October 2007 in Basel, Switzerland. Forthcoming.

6. Michel Serres, *Hominescence* (Paris: Le Pommier, 2001).

7. Colin Johnston, "Tractarian objects and logical categories." Synthese 167 (2009) pp. 145-161.

8. Greg Bear, *Darwin's Radio*, (New York: Ballantine, 2000).

9. Ringrose, L. and Paro, R.. "Epigenetic regulation of cellular memory by the Polycomb and Trithorax group proteins." Ann. Rev. Genetics. **38**. (2004) pp.413-443.

10. Gilles Deleuze, *The Logics of Sense*. (London: Continuum, 1989 [1968]). See particularly chapters 16 and 17, which describe the naturalization of transcendence.

11. Vera Bühlmann. *inhabiting media— Annäherungen an Herkünfte und Topoi medialer Architektonik*. Thesis, University of Basel, 2009. Switzerland.