

6 Digital Proximities & Aesthetic Mediations

6.1.

Being (in Motion): A Few Hasty Theoretical Conclusions

Communication either is or is not continued. Whenever it does continue, it remains adapted, no matter how self-dynamically it proceeds. It is not the goal of communication to adapt itself to the respective mind. On the contrary, communication fascinates and occupies the mind whenever and as long as it continues. This is not its purpose, nor its meaning, nor its function. Only, if it doesn't happen, then it doesn't happen.

Niklas Luhmann, 1988

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I ended the last section with a brief foray into Luhmann's communicative model and now propose that we return to Gumbrecht. I realize that the structuring of this thesis might appear unorthodox, as will its heuristic methodological strategies. The oscillation between theory and practice not only hinders the possibility of linearity, but demands recursive models of theorization, a systems re-entry paradigm. My goal, or bet, was to attain something akin to Siegfried Schmidt's "nutshell formula" stated in the preface of his *Histories & Discourses: Rewriting Constructivism*, "from the start without a beginning through the building of structures out of instabilities to the finality of transience" (SCHMIDT, 2007, p. 22). I also realize that my personal effort to reconcile materiality with the immaterial could have generated more questions than answers. For that, I am at fault. I have always subscribed to Luhmann's notion that a reduction in complexity, though occasionally necessary, also implies an increase in

complexity. If we recall, the complexity each system makes available is an incomprehensible complexity (disorder) to the receiving system (LUHMANN, 1993). Luhmann defines complexity in terms of a threshold – “complexity is the perspective from which problems are experienced by contemporary systems” (LUHMANN, 1995, p. 24). At a structural level, the threshold is the point where it no longer becomes possible to connect every element of a system to every other one (Ibid.). From this it follows that the reduction of complexity implies a reduction in contingency. Luhmann regarded technology as functional simplification, or reduction of complexity: “Only such a broad definition of technology can make good on the claim to contributing to the self-description of contemporary society” (LUHMANN, 1998, p. 7). As an output of digital technology, digitally instantiated literature both responds to and alters the contexts in which it inscribes itself. Methodologically, inasmuch as the visibility of novel literary objects is informed by theory, the adoption of a recursive pattern of investigation proved fruitful.

To the extent that embodiment is contingent instantiation, let us agree to partake in Katherine Hayles’ contention that the medium is the signal, whatever form the message might be molded to assume. In this sense, it is not unexpected that Espen Aarseth’s cybertext theory should demand that one understand language recursively: text is a machine for the production, transmission and reception of signs.¹ As Jörgen Schäfer eloquently puts it in his essay “Reassembling the Literary:”

Linguistic signs then are not to be understood as storage- and transfer-media for contents independent of language and media-indifferent; rather as *operative media* they are themselves—quite in the sense of the mediation approach—the condition of the possibility of mental form-creations. (SCHÄFER, 2010, p. 30)

This induction of a “cybernetic” practice in theorization of new media seems quite productive and well suited to my desire to contribute to the academic and scholarly practice of digital literature (Cf. SCHÄFER, 2010). When I tackle Gumbrecht’s notion of presence or Luhmann’s systemic thought within the context of new media installations it is in the hope that, as Schäfer surmises, “(...)

¹ Schäfer uses Ludwig Jäger’s notion of transcriptive logic of language as a point of departure. “Language is the anthropological archetypal medium of cognitive integration” (Schäfer, 2010, p. 30).

recursive loops are not just a simple means of reproduction. Rather they combine repetition and variation in a very specific way with the objective of creating something new” (SCHÄFER, 2010, p. 30).

As it was clear in *Text Rain*, highly complex digital objects will often demand and benefit from both hermeneutical and non-hermeneutical “readings”. Despite their lexical natures – and the interpretative responses elicited by them – their physical apprehension generates material effects of presence, which are not to be ignored. Borrowing from theorist Andrew Darley’s terminology, Roberto Simanowski speaks of a shift in spectatorship modalities, from readers concerned with conceptual and symbolic attributions to spectators veered towards corporeal stimulation (SIMANOWSKI, 2011).² Always a believer in de-paradoxifying attitudes, I will claim the following: (a) In digital installations, the effects of physicality encompass an increasing sense of self-awareness on the interactor’s part, a surrendering to a state of relaxation akin to the focused serenity of waiting for a revelation Gumbrecht ascribes to *Gelassenheit* (GUMBRECHT, 2004). (b) Profiting from this sensory and cognitive oscillation, mixed reality digital installations subvert hermeneutic order even more drastically than non-digital installations would, for in the latter the matter/immaterial modulation is not manifest. Moreover, (c) I suspect that this increased awareness of corporeality and embodiment has not emerged of its own accord. It is not a spontaneous happenstance, but rather represents a cultural tendency that has gained currency as an aesthetic trend because it fulfills certain pre-cognitive needs not fully addressed by the hermeneutical/metaphysical paradigm. It is no wonder that this reactive sensory/affective technological turn has led several authors and researchers of new media to speak of biometric sensors, cortex-encased protoplasts, cyborg bodies and prototyping platforms, promoting a shift away from visual interfaces to proprioceptive interfaces. If one recalls Hayles’ oft-cited definition of posthuman, one understands that the posthuman view prioritizes informational patterns over material instantiations, “so that embodiment in a biological substrate is seen as an

² For Simanowski, this state of affairs is conducive to a rebirth of interpretation: “interpretation is again liberating, elucidating, necessary. I think it is and hence in my approach to the various examples of digital art not only describe what it is and how it works but also ask what it could mean” (Ibid.). In this regard, I am inclined to side with Gumbrecht and Gianni Vattimo in their shared frustration with a contemporary philosophical climate wherein “a moment arrives when one can no longer feel anything but anger, an absolute anger against so many discourses, so many texts that have no other care than to make a little more sense, to redo or to perfect delicate works of signification” (VATTIMO apud GUMBRECHT, 2004, p. 57).

accident of history rather than an inevitability of life” (HAYLES, 1999, p. 3). By the same token, consciousness, heretofore regarded as “the seat of human identity in the Western tradition” (Ibid.), becomes, per Hayles, “an epiphenomenon,” but a secondary byproduct of embodied information.

I derive my sub-title from the third chapter of Gumbrecht’s *Production of Presence: What Meaning Cannot Convey*, “Beyond Meaning: Position and Concepts in Motion” (GUMBRECHT, 2004). Having affirmed in a section entitled “Affinities” contained in his introduction/User’s Manual that this chapter would relate the concept of presence to various publications within the humanities, the author reluctantly admits to his intellectual debt to the philosophy of Martin Heidegger. The operative premise is that a confrontation with the question of Being would help “broaden our minds,” thereby prompting exteriority: a view (from) outside – or beyond – the hermeneutic paradigm. Gumbrecht’s emphasis on substantiality as well as his desire to explore the complexity of the Heideggerian concept of Being is justified by essentially two reasons. Firstly, Being has proven to be one of the most controversial concepts in Heidegger’s philosophy in that it is constantly associated with substantialist trends – which inevitably fall under “the anathema of intellectual poor taste” (GUMBRECHT, 2004, p. 66). Secondly, a detailed depiction of the concept of Being will render visible the extent of the transformation required by an actual conceptual shift from “meaning culture” to “presence culture” (GUMBRECHT, 2004, pp. 66-67). The latter concerns our argument directly.

In the paragraphs to follow, I circumvent the traps of an excursus into Heideggerian ontology and pinpoint the passages in Gumbrecht’s reading of Heidegger which concern our argument directly – as they help clarify the concept of *presence* and how it can be applied to *digital aesthetics*. By establishing four different perspectives that would justify the position of “eccentricity” he adopts vis-à-vis the metaphysical paradigm, Gumbrecht suggests that “Being” in Heidegger’s philosophy takes precedence over truth (*Alethéia*). In other words, it assumes the place of the content of truth – which had been previously taken by Platonic notions of ideas and other such conceptual forms of configuration (GUMBRECHT, 2004, p. 67). To be clear, it is not that Being substitutes truth, for truth, according to Heidegger, is something that happens (*ein Geschehen*). The occurrence of this happening brings forth a unique being: “Truth happens in

the temple's standing where it is" (HEIDEGGER apud GUMBRECHT, 2004, p. 162). Truth is the "showing forth" or "unconcealment" of that which is hidden (Ibid.).³ Because Being is that which is "both concealed and hidden in the happening of truth," it bears a close relation with presence (GUMBRECHT, 2004, p. 67). Being, per se, is not conceptual, nor does it possess any transcendental aspect: it is immanent, substantial – it belongs to the world of things and has, indeed, a thingly character. "Being is not a meaning" (Ibid).

Being's movement in space happens tridimensionally. If the vertical dimension of Being accounts for its emergence ("sway"), then the horizontal dimension relates to its perception ("idea", "look"), which also means Being offering itself to somebody's view. The third dimension in the movement of Being is one of withdrawal and bears the most intimate affinity with the elusiveness of presence. Inasmuch as presence can never "hold" and is always ephemeral, presence can never be stable, "it can never be something that, so to speak, we would be able to hold on to" (GUMBRECHT, 2004, p. 58). Referring to Heidegger's "Zur Erörterung der Gelassenheit," (1944) Gumbrecht suggests that Being is always entrapped in a double movement:

I am convinced that this withdrawal is part of a double movement of unconcealment and withdrawal that, as we have already seen, constitutes the happening of truth, and that the part of unconcealment contains both the vertical movement of 'sway' (of emergence and its result: being there) and the horizontal movement of 'idea' (as presenting itself, appearance). (2004, p. 69)

The third dimension of Being presupposes an articulation in space. Insofar as Being relates to "things of the world" in a pre-cultural state, which is to say before they become couched in cultural discourse, Gumbrecht is able to deploy "the rhetorical figure of the paradox" and argue that Being bears a pre-ontic relationship with specific cultural lifeworlds: "[Being] refers to the things of the world before they become part of the world" (GUMBRECHT, 2004, p. 70). Because Being and presence are to be employed interchangeably, the logical implication is that presence is only presence if it occupies a position of

³ I shall briefly return to this problem. For now, suffice it to say that within systems theory logic, the problem of truth can be solved through the distinction between what Luhmann describes as *reference* and *code* problems, respectively. Referring to Willard van Orman Quine, Luhmann writes that "the distinction between analytic and synthetic truths must, as Quine has already suggested, be discarded. It can easily be replaced by the distinction between self-reference (= analytic) and external reference (= synthetic)" (LUHMANN, 1998, p. 13).

eccentricity vis-à-vis semantic and semiotic networks and discourses. When applied to the culture-specific universe of digital aesthetics, this formal scheme presents us with a myriad of problems. On the one hand, in Western social systems, tragically fraught with endless processes of meaning attribution and exhaustive interpretation, presence can only be construed as state of exception, an interstice, an ineffable quasi-material emergence. On the other hand, to suggest that theories on the posthuman subject and disembodied computation can seamlessly coalesce into Gumbrecht's notions of presence is to overlook obvious difficulties within the disciplinary field of digital aesthetics, more precisely, the remissive nature of the digital medium itself. One need only consider the inescapable fact that digital objects owe their flickering ontologies to chains of zeroes and ones and that processing operations precede cognitive (interpretative on the most basic of levels) reception efforts (HAYLES, 2005).

[An electronic text] ... does not exist anywhere in the computer, or in the networked system, in the form it acquires when displayed on screen. After it is displayed, of course, readerly processing may occur, as with print. But we should not indulge in the logical confusion that results when it is assumed that the creation of the display—a process that happens only when the programs that create the text are activated—entails the same operations as the reader's cognitive processing. (HAYLES, 2005, p. 101)⁴

Extrapolating on the notion of dispersed embodiments (and textualities), Hayles observes that the third wave of cybernetics brought with it the rather disturbing notion that patterned information can circulate through a vast array of material substrates – carbon-based human body being but one of the many options. What are the implications of this view to the study of embodiment? First and foremost, the posthuman view unequivocally reinforces the liberal subject tradition of the self as disembodied consciousness (*res cogitans*). Put differently, because information has “lost its body,” embodiment ceases to be indispensable to human beings: “to the extent that the posthuman constructs embodiment as an instantiation of thought/information, it continues the liberal tradition rather than disrupts it” (HAYLES, 1999, p. 5). Thus considered, the concept of “information” – as per Bateson's dictum of “the difference that makes a difference” – bears striking similarities to the notion of “meaning,” inasmuch as

⁴ Emphasis added. The latter portion of this passage is also quoted as a footnote in Jürgen Schäfer's “Reassembling the Literary” (2010).

both processes evade materiality. Anticipating this intuitive presupposition, Hayles is careful to propose that she sees the deconstruction of the liberal humanist subject as “an opportunity to put back into the picture the flesh that continues to be erased in contemporary discussions about cybernetic subjects” (Ibid.).⁵

There are a number of consequences to this line of thought. With regards to communicative media and literature in particular, disembodied informational patterns and distributed cognition(s) do seem incompatible with a conception of presence so inexorably predicated on substance. Embedded in the search for a sensitive re-presentational model (GUMBRECHT, 2004) – one of presence versus meaning – is the effort to undo absence in a spatio-temporal sense – i.e., once one subtracts temporality from the equation, absence in fact ceases to exist. Making things present means making them concretely available – i.e., “ready-to-hand” (*Zuhanden*) vs. “present-at-hand” (*Vorhanden*). Gumbrecht draws on Heideggerian logics extracted from *Being and Time* to explain a tendency toward physical proximity. Heidegger replaces the subject/object paradigm with the concept of *Dasein*, or being-in-the-world. As Heidegger’s critic Paul Gerner notes, the hyphenation indicates the emphasis on “the unitary character of the phenomenon” (GORNER, 2007, p. 35). *Dasein* is not in-the-world as one spatial entity is contained in another: “*Dasein* is not in the world in the sense that water is in a cup” (Ibid.). Nor is *Dasein* consciousness. So what is *Dasein*? One key factor in this equation is the word *da*, which in German means space plus *Sein* (being).

The entity to which Being (...) belongs is one in which we have characterized as that entity which in each case I myself am (*bin*). The expression *bin* is connected with *bei*, and so *ich bin* (“I am”) means in its turn “I reside” or “dwell alongside” the world, as that which is familiar to me in such and such a way. “Being” (*Sein*) as the infinitive of *ich bin* (that is to say, when understood as an *existentiale*), signifies “to reside alongside,” “to be familiar with.” “*Being-in*” is thus the formal existential expression for the Being of *Dasein*, which has *Being-in-the-world* as its essential state.

⁵ It is imperative to note that Hayles devotes a significant portion of *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* to the reconciliation of information/matter aporia: “it is this materiality/information separation I want to contest (...)” (HAYLES, 1999, p. 12). My brief exploration of the theme hardly does justice to the complexity of her theories. I simply wish to point out that the matter/information duality subsists in theories of virtuality.

Dieses Seiende, dem das In-Sein in dieser Bedeutung zugehört, kennzeichneten wir als das Seiende, das ich je selbst bin. Der Ausdruck »bin« hängt zusammen mit »bei«; »ich bin« besagt wiederum: ich wohne, halte mich auf bei ... der Welt, als dem so und so Vertrauten. Sein als Infinitiv des »ich bin«, d. h. als Existenzial verstanden, bedeutet wohnen bei..., vertraut sein mit... *In-Sein ist demnach der formale existenziale Ausdruck des Seins des Daseins, das die wesenhafte Verfassung des In-der-Welt-seins hat.* (HEIDEGGER, 1927, p. 54 apud GUMBRECHT, 1997, p. 447)

According to Gumbrecht, another important aspect of *Being and Time* is the establishment of an explicit relation between the new technological possibilities of crossing distances and Heidegger's own analyses of space as a structural precondition for human existence. Gumbrecht notes that through the use of use of his "typical hyphenations" Heidegger converts *Entfernung* (distance) into its opposite *Ent-fernung* (shortening the distance or, as Gumbrecht better puts it, "undoing of farness"). This pun would have taken Heidegger to the analogous thesis derived from the priority that he gives to *Zuhandenheit* ("ready-to-hand") over *Vorhandenheit* ("present-at-hand"). In other words, from an existential viewpoint, proximity (or rather the undoing of farness) precedes distance in importance (GUMBRECHT, 1997).

In Dasein there is an existential tendency towards closeness. All the ways in which we speed things up, as we are more or less compelled to do today, push us toward the conquest of remoteness [*Entferntheit*]. With radio, for example *Dasein* has so expanded its everyday environments that it has accomplished a de-distancing [*Ent-fernung*] of the "world" – a de-distancing whose implications for the meaning of *Dasein* cannot be fully visualized.

Im Dasein liegt eine wesenhafte Tendenz auf Nähe. Alle Arten der Steigerung der Geschwindigkeit, die wir heute mehr oder minder gezwungen mitmachen, drängen auf Überwindung der Entferntheit. Mit dem »Rundfunk« zum Beispiel vollzieht das Dasein heute eine in ihrem Daseinssinn noch nicht übersehbare Entfernung der »Welt« auf dem Wege einer Erweiterung der alltäglichen Umwelt. (HEIDEGGER, 1927, p. 105 apud GUMBRECHT, 1997, p. 365)⁶

Easily detected in the field of digital aesthetics is a general inclination towards "mediated sensoriums," – possibly articulated in terms of tactility, and by extension, proximity. Theories of presence, I contend, can offer a consensual

⁶ I have studied Gumbrecht's *In 1926: Living on the Edge of Time* in detail in my M.A. dissertation and I think that to dwell excessively on it here would seem redundant. Nevertheless, I do want to call attention to Gumbrecht's self-proclaimed goal to produce the immediate and sensory illusion in the reader of being "inside the worlds" of 1926 simply because one may find this same logic in some works of digital literature.

answer to a good measure of theoretical controversies. Gumbrecht observes that Being's ongoing "double movement" of production ("coming forth") and retraction ("withdrawal") suggests not only the evident connection with the expression "production of presence," but also a possible connective node with Martin Heidegger's concept of appearing, which I shall address separately. Suffice it to say that however "provisional [his] attempt at unfolding the complexities of Heidegger's concept of Being may remain, there cannot be any doubt that this concept is very close to the concept of presence" (GUMBRECHT, 2004, p. 77). Without dwelling on particular articulations of such crucial Heideggerian concepts as "world" and "earth," I would like to temporarily and provisionally "hold on" to the implication of Being as a tangible entity, albeit removed from historical or discursive networks.

(...) unlike the Platonic ideas, Being is not supposed to be something general or something metahistorical "below" or "behind" a world of surfaces. Perhaps it is as simple as this proposal for a definition: Being is tangible things, seen independently of their culturally specific situations – which is neither an easy feat to achieve nor a probable thing to happen. (GUMBRECHT, 2004, p. 76)

If Being can only be Being outside semantic and cultural grids, then what sort of materiality can we ascribe to it? The question could be posed differently: insofar as Being can be assumed to be interchangeable with the concept of presence, then what sort of materiality can we expect from presence? Gumbrecht's response requires nothing short of another brief foray into Heideggerian ontology. For my part, I shall restrict my answer to a few points of concern: (a) *Dasein* is not synonymous with commonplace definitions of the liberal subject. Rather, "*Dasein* is being-in-the-world, that is human existence that is already in – both special and functional – contact with the world" (GUMBRECHT, 2004, p. 71). (b) *Dasein* has a material grasp of the things of the world. This is not to suggest that Heidegger eliminates the distance between *Dasein* and the world: "this world with which *Dasein* is in touch is 'ready-to-hand,' it is always already interpreted world" (Ibid.). Thus, the contact is not unmediated. (c) Heidegger distinguishes *Sein* (Being) from *Seindes*, which means *Sein*'s appearance, "pure surface, the primary dimension of human experience" (GUMBRECHT, 1997, p. 449). As such, human existence can be theorized as but

one of the possible incarnations of Being, one which has the potential of becoming self-aware (Ibid).⁷

Let us go along with Gumbrecht's reading of Heidegger's *The Origin of the Work of Art* and accept that the work of art is a "privileged site for the happening of truth, that is for the unconcealment (and the withdrawal of Being)" (GUMBRECHT, 2004, p. 72). Let us also assume that the unconcealment of Being is akin to the happening of presence and that presence is the intangible facet of aesthetic experience. On this basis, it stands to reason that aesthetic experience ought to bear strict relations with *Dasein's* possible contribution to the unconcealment of Being as composure (*Gelassenheit*) (GUMBRECHT, 1997; 2004). Irrespectively of possible objections one may bear against Gumbrecht's reading of Heidegger, the theoretical conundrum concerning the integration of presence to the logics of digital aesthetics remains startlingly simple: how to reconcile the immateriality engrained in the paradigm of virtuality with the concept of presence? Surely, the attempt to overcome metaphysical epistemology after the institutionalization of hermeneutics entails a commitment to counterintuitive conceptions of materiality. This is to say that, in many regards, Gumbrecht's presence could erroneously be associated with the thorny ontological premises of simulation/virtuality as per Baudrillard et. al. Differently put, presence is reliant on what Paul Zumthor has called the "fiction of immediacy" (ZUMTHOR, 1988, p. 221). If we recall, presence is rooted in the concept of the Aristotelian sign, which simultaneously denotes both substance and form.⁸ It

⁷ For further exploration on the relationship between *Sein* and *Dasein* see: "*Dasein* is an entity which does not just occur among other entities. Rather, it is ontically distinguished by the fact that, in its very Being, Being is an issue for it. But in that case, this is a constitutive state for *Dasein's* Being, and this implies that *Dasein*, in its Being, has a relationship toward that Being—a relationship which itself is one of Being. And this means further that there is some way in which *Dasein* understands itself in its Being, and that to some degree it does so explicitly. It is peculiar to this entity that with and through its Being, this Being is disclosed to it. Understanding of Being is itself a definitive characteristic of *Dasein's* Being. *Dasein* is ontically distinctive in that it is ontological" (HEIDEGGER apud GUMBRECHT, 1997, p. 449).

"*Das Dasein ist ein Seiendes, das nicht nur unter anderem Seienden vorkommt. Es ist vielmehr dadurch ontisch ausgezeichnet, daß es diesem Seienden in seinem Sein um dieses Sein selbst geht. Zu dieser Seinsverfassung des Daseins gehört aber dann, daß es in seinem Sein zu diesem Sein ein Seinsverhältnis hat. Und dies wiederum besagt: Dasein versteht sich in irgendeiner Weise und Ausdrücklichkeit in seinem Sein. Diesem Seienden eignet, daß mit und durch sein Sein dieses ihm selbst erschlossen ist. Seinsverständnis ist selbst eine Seinsbestimmtheit des Daseins. Die ontische Auszeichnung des Daseins liegt darin, daß es ontologisch ist*" (HEIDEGGER, 1967, p. 12).

⁸ In forging the alternative to the hermeneutically-based trope of the sign, Gumbrecht also makes use of Hjelmslev's renowned quadrangle: a departure from Saussurean signifier/signified dichotomic model.

stands to reason that in predominantly meaning cultures, presence becomes as improbable an occurrence as the emergence of aesthetic experience itself – which, according to Gumbrecht, provides us with feelings of intensity that are fundamentally *divested of or free from* their cultural/historical specificity, which is to say the possibility of their inscription in “everyday worlds.”⁹ It is thus not surprising that Gumbrecht should expand his theoretical reflection on presence to athletic and musical performances (GUMBRECHT, 2001; 2004).

For Gumbrecht, the crucial point of convergence between Being and presence lies in their shared tension with the notion of meaning, i.e., “that which makes things culturally specific” (Ibid.). The author is careful to establish that Heidegger never anticipated the connection embedded in the mobility of Being and a “dimension of extreme temporality” (GUMBRECHT, 2004, p. 77).

Being and presence imply substance; both are related to space; both can be associated with movement. Heidegger may not have elaborated on the notion of extreme temporality as much as some contemporary thinkers try to do; but what I have tentatively called ‘the movements’ of Being in Heidegger’s conception make it impossible to think of Being as something stable. (GUMBRECHT, 2004, p. 77)

In light of such a veritably unstable theoretical spectrum, the point is to understand that both Being and presence – and the stress should fall on the latter – presuppose movement. There cannot be full stability. With Jean-Luc Nancy, Gumbrecht concludes that the sort of presence that the French theorist envisions is “difficult—if not impossible—to reconcile with modern Western epistemology because it brings back the dimension of physical closeness and tangibility” (p. 57). Gumbrecht’s own emphatic reiteration of presence’s oscillating qualities validates this claim. To envision the pedagogical and even practical applications of these forms of theorization is no simple task. Yet, what I propose is an approach to digital aesthetics informed by them – one that takes into account a new interplay of medial, symbolic and material bodies and textualities. In this regard, the duality in concept of experience matters insofar as in digital installations, one is exposed to multiple modalities of reception. Because of the variegated nature of these receptive experiences, they tend to activate both kinesthetic/sensory-motor and semiotic responses. The physical/physiological

⁹ See. GUMBRECHT: “Mundo Cotidiano’ e ‘Mundo da Vida’ como Conceitos Filosóficos: Uma Abordagem Genealógica.” In. *Modernizacao dos Sentidos*, 1998.

body being central in the vast majority of mixed media environments, immersive installations can be said to require cognitively paradoxical answers. On the one hand, the situation is one of insularity – a removal from the daily level of experience and, by extension, from culturally forged means of world-appropriation and sense-constitutive activations. On the other, bodily self-awareness generates relationally specific orders of aesthetic appropriation. This is particularly visible in objects of the lexical sort, where the semiotic impulse to read is triggered. In short, the emphasis on “affective modes of communication,” to borrow from new media theorists Maria Angel and Anna Gibbs’ terminology, requires profound revisions in conceptual repertoires. Material and concrete sensory impacts demand altered literacy competencies, which do not (and should not) preclude whatever interpretative impulses one may feel towards literary objects. As difficult as it may be to ascertain the exact extent to which an exterior sensory impulse might numb or temporarily suspend our cognitive faculties, Gumbrecht’s conception of moments of intensity is applicable in the theorization of complex immersive digital installations.

There is nothing edifying in such moments, no message, nothing that we could really learn from them – this is why I like to refer to them as moments of intensity. For what we feel is probably not more than a specifically high level in the functioning of our cognitive, emotional, and perhaps even physical faculties. (GUMBRECHT, 2004, p. 98)

The reasoning stems from the acknowledgement that due to its propensity towards intensity, aesthetic experience ought to occur within a separate realm from that of praxis. Nevertheless, in my view, the epistemic question immediately following such a bold statement should not be: why look for such moments at all? – i.e., to investigate, as Gumbrecht does, “the specific appeal that those moments hold for us” (GUMBRECHT, 2004, p. 99). Rather, what I believe matters most, at least within the scope of this thesis, is something that the author touches on ever so tangentially: that is, the extent to which aesthetic experiences presuppose interpretation; in other words, how much of our aesthetic engagement with the world is dictated by pre-learned, socially-constructed knowledge of the world (*Erfahrung*) or even, is a reasonably unmediated experience of the world (*Erleben*) at all possible? If aesthetic experiences are extraordinary moments transpiring within our everyday worlds, then they could arguably be symptomatic

of some sort of preconscious need.¹⁰ Gumbrecht favors the phrase “moments of intensity” or “lived experience” (*“ästhetisches Erleben”*) over “aesthetic experience” (*“ästhetische Erfahrung”*) precisely because most philosophical currents associate the term experience with interpretation, or acts of meaning attribution (GUMBRECHT, 2004).

When I use the concepts *Erleben* or “lived experience” (...) I mean them in the strict sense of the phenomenological tradition, namely, as being focused upon, as thematizing of, certain objects of lived experience (objects that offer specific degrees of intensity under our own cultural conditions – whenever we call them “aesthetic”). (GUMBRECHT, 2004, p. 100)

Lived experience then presupposes perception (*Wahrnehmung*) and precedes *Erfahrung*. Despite his reliance on Luhmann’s systems-theory approach – rooted in operatively closed autopoietic systems – Gumbrecht assumes purely physical perception to be possible.¹¹ Let us then consider the following: contemporary mediatic society, like any other social system, receives its operational premises from its capacity to self-observe; it redesigns its own borders by permanently updating and actualizing its self-descriptions (LUHMANN, 1998). Inasmuch as new media’s self-descriptive apparatuses are permeated with the semantics of virtuality – encapsulating such prevalent tropes as shared/distributed perception and cognition –, it is possible to anticipate the problems that presence theory’s “substantialist” claims can impose. With Luhmann, we could potentially settle this discussion by readdressing the controversy between “realistic” and “constructivistic” perspectives in terms of systems-theory logics:

The usual lukewarm answer to a wrongly postulated problem then states that constructivism cannot manage without a small dose of realism. This controversy [between realist and constructivist theories] is wrong because no constructivist – neither the supporters of the strong program of Edinburgh nor Jean Piaget nor Ernst von Glasersfeld, neither the evolutionary cognition theory of the biological or nonbiological variety nor the second-order cybernetics of Heinz von Foerster –

¹⁰ This hypothesis is proposed by Frank Koppe. Gumbrecht adds that “[he disagrees] with Koppe’s proposal that ‘making us aware of situations of collective need’ should be considered as the main and genuine function of aesthetic experience” Cf. GUMBRECHT 2004, p. 165.

¹¹ Luhmann posits that there is no objective (correct) approach to a preexisting world. Anticipating this move, Gumbrecht tackles the issue in his explanation of the concept of *epiphany*, wherein the ephemeral nature of presence becomes abundantly clear. For further study on Gumbrecht’s take on reality see “Narrating the Past Just as If It Were Your Own Time” In. GUMBRECHT, H.U *Making Sense in Life and Literature*.

would ever deny that constructs must be staged by environmentally sensitive, real operations. (LUHMANN, 1998, p. 12)¹²

Once truth is defined as a positive value, whose binary negative is untruth (Ibid.)¹³, then we are able to surmount the problem of reference and address corporeality as such, as it simultaneously *inscribes itself in* and *retracts from* new media discursive practices.

Appearing and Seeping

In *Aesthetics of Appearing*, Martin Seel states that because aesthetic perception is natural to human beings and indeed an integral part of human behavior, it will actively seek opportunities to emerge at any given moment. Permanently open to us as one of the many active forms of engagements we are capable of establishing with our environments, aesthetic experience is not constricted to a specific area of our lives, looming as a possibility at all times. Rather paradoxically, it is also Seel who notes that an essential characteristic of all aesthetic relations is “that we take time for the moment, though in entirely different rhythms,” thus implying that aesthetic perception, when it does occur, takes place extra-temporaneously (SEEL, 2005, p. 20). The autonomous character of aesthetic experience could potentially lead to dissociations of a spatio-temporal order. If, for example, aesthetic experience occurs within the confined space of a museum, then it is limited by a certain locale and duration, which impose restrictive parameters in their own right. Very schematically I hypothesize that, (a) by its very ontological constrictions – its reliance on “flickering voltages” –, the digital medium posits its own variety of obstacles and difficulties. And (b) the

¹² In any event, instead of investing more time and effort in a, for our purposes, peripheral issue, I suggest we focus on how aesthetic experience is modified in the age of new media. Specifically, how presence plays a part in these new models of aesthetic experience one encounters in intricate mixed media immersive installations such as the aforementioned *Text Rain* by Camille Utterback and Romy Achituv and *Screen* by Noah Wardrip-Fruin. In *Text Rain*, I did not propose a full epistemological departure from an interpretative paradigm, but I did underscore the hypothesis that a refusal to address the physicality of the piece would amount to a poor (in the sense of a less interesting) close reading of it.

¹³ See Luhmann, 1998: “The distinction between self-reference (=analytic) and external reference (=synthetic) [must be discarded]. Then the distinction between reference and coding can take effect, and we see that the positive/negative values of the code true/false can be applied to both extra-referentially and self-referentially defined circumstances” (1998, p. 13).

parameters in question here bear absolutely no correspondence with “true” temporal duration, but simply refer to the phenomenological experience of time.¹⁴ For the purposes of critical analysis, it is preferable to speak of performative potentials than to ascribe material consistencies to objects whose reception rely heavily on moments of “appearance.”

To be sure, under the concept of “appearance,” Seel amalgamates all manner of conditions for the sensual/perceptual survey of reality: “To perceive something in the process of its appearing for the sake of appearing is the focal point of aesthetic perception” (SEEL, 2005, p. 24, Cf. GUMBRECHT, 2004).¹⁵ From this perspective, two points become exceedingly clear: (a) the situation of aesthetic perception always entails a moment of self-reflection, for by focusing on the appearing or the emergence of a certain object one becomes aware of their ability to perceive aesthetically; (b) as aesthetic *perception* can be deemed a contributing factor to the entirety of aesthetic *experience*, one can assume that it falls under the heading of reception. Once this is settled, we understand that the concentration on the momentary appearing of things is always at the same time “a reflection on the immediate presence in which this perception is executed” (SEEL, 2005, p.16). Aesthetic perception is thus a turning of one’s attention (or attentiveness) to the here and now, to the moment. Technically speaking, the *here* and *now* can take place anywhere, at any time, easily lapsing into distant *theres* and *thens* (Cf. SIMANOWSKI, 2011). The question immediately following these assertions is thus: what does this awareness encompass? When confronted with linguistic marks, does awareness not presuppose a conscious movement, a semiotic reaction to perception, which obligatorily leads to what Wolfgang Iser has termed “the act of reading?” Or is this awareness more intimately related to what Gumbrecht characterizes as “being in sync” with the things of the world, or

¹⁴ Cf. Gumbrecht, on the subject of the chronotope of historical time. In particular, see GUMBRECHT, H.U. “O presente em crescente expansão” (2002): “Caso não tenha ficado claro o que pretendia dizer com presente em crescente expansão, acrescentamos alguns comentários esclarecedores. Ele não está pensando em uma modificação no nível de descrição fenomenológica, que segundo Husserl, define tempo como ‘forma de vivência.’ (...) Mas é justamente isso que o interessa: o sentimento hoje ainda pouco familiar de que em nosso mundo, objetos e estruturas centrais se modificam mais devagar do que antes (...)” (2002, p. 55).

¹⁵ When he asserts his affinities with Seel’s intellectual program, Gumbrecht observes that even closer to “[his] concerns] (...) is German philosopher Martin Seel’s proposal to ground a new reflection on aesthetics in the concept of ‘appearance’” (GUMBRECHT, 2004, p. 63).

the world's *thinglyness* – i.e., “*Erleben* that is more than *Wahrnehmen* and less than *Erfahren*?” (GUMBRECHT, 2004, p. 118).

However one decides to approach these questions, it is relevant to reiterate that the debates are by no means finalized. Seel notes that in the aesthetic state we become free from the “compulsion to determine ourselves in the world” (SEEL, 2005, p. 4). This negative freedom presents us with one positive aspect: “in the play of the aesthetic perception, we are free to experience the *determinacy* of ourselves in the world” (2005, p. 5). Naturally, one must examine what the author means by *determinacy*. If it is to be understood as temporary certainty, or an ephemeral feeling of grounding, then it does have ties with Gumbrecht’s presence. Determinacy can be equated with the transient content of presence, or presence as *phusis* – a momentary emergence eliciting affects (i.e., broadly defined as the feeling of being “connected” to the things of the world).

Wherever the real presents itself in a repleteness and changeability that cannot be grasped but can nonetheless be affirmed, there we experience a scope for the possibilities of knowing and acting (...). (SEEL, 2005, p. 5)

In the spirit of interpolating theory and practice, I would point the reader to Julius Popp’s network-based installation *bit.fall*, wherein the algorithm culls trending words from search engines and deploys synchronized magnetic valves to “print” them in water (POPP, 2008).¹⁶ Because the water-made word is only distinguishable for a fragment of a second before the drops merge to become amorphous liquid, *bit.fall*’s thematization of ephemeral immanence is unambiguous. Due to its physical properties, water lends itself perfectly to an illustration of all passing things; like an utterance, which then recedes into silence, the aquatic text in *bit.fall* is sudden instantiation and subsequent (prompt) dissolution. One is reminded of Gumbrecht’s conceptualization of the epiphany component of aesthetic experience: “(...) Finally (and above all), epiphany within aesthetic experience is an event because it undoes itself while it emerges. (...) no single meaning structure and no single impression of a rhythm pattern (...) is present for more than a moment in the actual reading process” (GUMBRECHT, 2004, p. 113). I leave the reader with a still shot from the work and a deceptively

¹⁶ Popp explains that the valves are designed to comply with a computerized control system which modifies a curtain of water by manipulating 128 nozzles (Popp, 2008).

simple hypothesis: *bit.fall* offers a visualization of the sort of intermittent, – “flickering”/processual – presence I ascribe to programmable text.



Fig. 25. Still image from Julius Popp's *bit.fall*.

6.2.

Remembering the Cave

In a world of illusions we hold ourselves in place by memories. (...) We stare into the void of lost memories, a loose scatter about us of what fragments remain: no sense but nonsense to be found there. If memories define us, what defines us when they are gone? An unbearable prospect.

Text narrated by Robert Coover in the interactive installation *Screen* by Noah Wardrip-Fruin et al.

Screen by Noah Wardrip-Fruin et al. is a room-sized virtual reality display that begins as a reading and listening experience – a meditation on the theme of memory – only to turn into a full-fledged interactive and ludic act when words begin to peel off the walls and the interactor finds he is able to paste them back in their original locations. Because of the non-triviality of its demands, one might argue that *Screen* is as much about its theme (memory) as it is a self-referential study on the techniques of virtual reality. My idea being to adhere to a descriptive tone and utilize theoretical conceptualizations as constructive tools of analysis, I shall refrain from an interpretative reading of the piece and favor a shift towards a cooperative mode of analysis (meant if not to replace then at least to supersede acts of interpretation). Notions of shared embodiment (HAYLES, 1999) and production of presence (GUMBRECHT, 2004) become then theoretical and aesthetic tropes of analysis.

In the project sketch for ACM SIGGRAPH (Special Interest Group on Computer Graphics and Interactive Techniques) 2004, “Screen: Bodily Interaction with Text in Immersive VR”, authors Wardrip-Fruin, Joshua Carroll, Robert Coover, Shawn Greenlee and Andrew McClain affirm that *Screen* invites a three-layered “reading” effort, bracketed as follows: the first stage is relatively conventional, operating like an ordinary video installation: three introductory texts are projected onto three separate walls. The second stage is more dynamic and starts when a word peels from one of the projecting walls and flies toward the interactor. This action is accompanied by a ripping noise coupled with the sound

of the word being read back to the reader. A storm of increasing pace ensues and soon words will entirely surround the interactor, who, at this point, is allowed to intervene by striking words with a tracking glove. This bodily and non-trivial gesture of “batting at” words in what often turns out to be a vain attempt to fill the empty slots initiates the third stage of reading/playing, which consists of the results of the bodily interactions from the second stage. Because words will come loose at an increasing rate and quantity and because these words can crumble into syllables and fragments, the third stage’s (final) output is variable. Ultimately, however, regardless of how the process unravels, the end result is that of a reader overwhelmed by words. It should also be noted that at the end of the third stage, a final text is read back to the interactor (CARROLL, COOVER, GREENLEE, McCLAIN and WARDRIP-FRUIIN, 2005).

Writing on the subject of instrumental texts versus textual instruments, Wardrip-Fruin claims to be interested in both types of playable texts. Here I am concerned with the former. Of the latter, suffice it to say that textual instruments present a “contrarian inversion” of the first category.¹⁷ Instrumental texts are texts meant to be played with in an ergodic sense – they demand non-trivial interventions. Fruin notes that the first category’s propensity to amalgamate two essential modes of play – one plays games and one plays instruments –, explains the critical attention it has warranted from the digital literature community (WARDRIP-FRUIIN, 2005, p. 13). Because it combines computer game mechanics with virtual reality technology one could argue that *Screen* is something of a repurposed VR game that fits into Fruin’s definition of instrumental text.¹⁸ Though it could certainly warrant a ludology-focused study, *Screen*’s “playability” – i.e., its effectiveness as game – need not concern us here. Instead, I wish to concentrate the analysis on the kind of typographical materiality one can expect to find in Cave pieces – *Screen* being one example – and how such “playable” textual surfaces can inform our debate on the nature of aesthetic experience in VR environments.

Writing about the *diegetic* nature of *Screen*, John Cayley affirms that “when we write for the CAVE, we write – bracketing any audio component within the

¹⁷ See Chapter 2 for two instances of instrumental texts: *Regime Change* and *Newsreader*, both by Wardrip-Fruin.

¹⁸ Fruin observes that a young participant in the Cave experiment later inquired about “his score,” thus underscoring the work’s internal logic as a game.

scope of the present arguments – for a world of images” (CAYLEY, 2010, p. 202). Not wishing to bracket the audio component myself, I submit that theories of presence could potentially help insert the “trope of immateriality” (Ibid.), to evoke Cayley’s phrase, into analytical discourse. The Cave’s “rarefied, test-case environment,” to once again borrow from the author, situates materiality at the center of critical debates, but does little to resolve it at a theoretical level. Cayley’s essay title “The Gravity of the Leaf” is particularly telling:

My title, “The Gravity of the Leaf” evokes an underlying cultural force that draws graphic linguistic materiality to the two-dimensional surface and holds it there still. This force is phenomenological and accumulative, a function of the exigencies of graphically embodied symbolic practice that is addressed to humans. This force is strong and its strength is, I believe, borne out by the various ways in which we continue to read our now ubiquitous screens as page- or leaf-like surfaces rather than, for example spatial affordances, as symbolic architecture, shifting the spaces within which we live. (p. 203)

Once text migrates to, or rather merges with, physical space, then it actively confronts readers in a novel way: how to “read” text that has been afforded discernible volume and structure? What changes in literary communication when the topology of the page as master surface undergoes such radical transformations as to become “playable space” in a literal and concrete way? And what of the unfastened letter – i.e. “the floating text”? As he dissects “the gravity of the leaf,” Cayley speaks of a new phenomenology of language, wherein floating textual strings would not constitute acts of *remediation* proper, but rather frame new instances of “mediation” because they present “graphically embodied language in a way that is entirely unfamiliar (...)” (Ibid.). Inasmuch as it re-introduces text as both dislodged symbolic inscription and virtual obstacle – though lacking a third dimension, text becomes perceivable in space as solid matter –, then one might argue that the Cave rehabilitates and multiplies the paradoxes of Concrete rhetoric: reading vs. seeing. Furthermore, by advertently stressing materiality and volume, the Cave is a device particularly suited to the logics of presence: “if the floating images on the screens of our world may become a barrier that separates us forever from the things of the world, those same screens may also reawaken our fear of and a desire for the substantial reality we have lost” (GUMBRECHT, 2004, p. 139).

To return to the specifics of *Screen*, it seems necessary to reiterate that altered production mechanisms will often issue symmetrically altered reception scenarios. That *Screen* should encourage “peripheral reading” practices is both a function of the medium which instantiates it (and on which it runs) and, hermeneutically, a neat commentary on the binary articulations of remembrance/forgetfulness inherent to the semantics of memory. With Schäfer one could note that the sort of “peripheral reading” required of a “reader” of *Screen* reinforces the insufficiency of traditional reader-response models, wherein readers are assumed to be fully, not partially, engaged. Cayley has suggested the term “breaking media” to circumscribe the characteristics of the “manifold systems of representation that (...) programmable devices offer.” (CAYLEY, 2010, p. 203). Whether Schäfer’s “empirically verifiable literary pragmatics” be a viable solution remains to be seen (2010b, p. 54).

Given our prior debate on literariness, it seems productive to query the extent to which *Screen* presents itself as a literary piece. Fruin explains that in his experience of *Screen*, users have not been immune to semiosis, tending to oscillate between reading and playing. With regards to its *literariness*, I would offer a hasty conciliatory – albeit rather constructivist – answer: *Screen* is literary inasmuch as an informed interpretative community decides it is so. That literature has been a VR medium before the advent of modern computer technologies is one of the simplest premises of literary theory (Cf. GENDOLLA & SCHÄFER, 2010, OLINTO, 2004). Discrete and alphanumeric inscription having proven to be immensely efficient in storing, processing and transmitting information, literature becomes, per Gendolla and Schäfer’s successful terminology, a meta-medium, hence the ideal site for the enactment of the fictive ability of human mind (Ibid.). Mixed reality immersive environments such as the Cave merely concretize these fictive and imaginary realities.

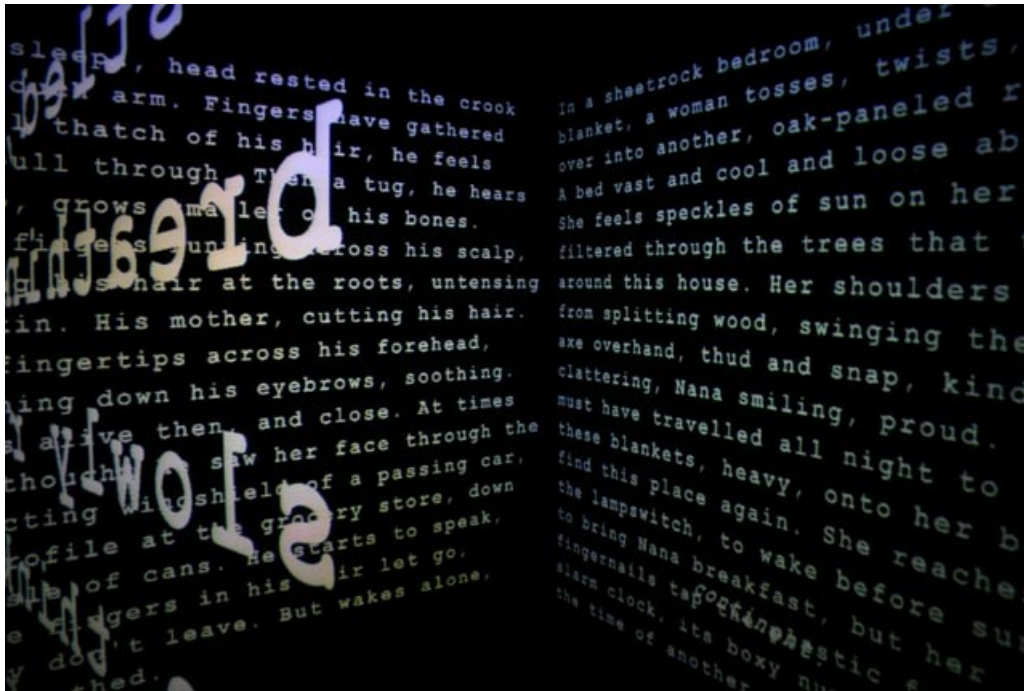


Fig 26. *Screen (all walls)* by Noah Wardrip-Fruin (2002).¹⁹

In Hayles' aforementioned introduction to *Electronic Literature: New Horizons for the Literary*, the author pioneers the Cave as "a site for interactive literature" (HAYLES, 2008, p. 12). Hayles also comments on *Screen*'s "startlingly literal" relationship with its theme, an observation equally applicable to *Text Rain*. The most daring approach to this new receptive modality would require that one combine what Rita Raley deems the "kinesthetic, proprioceptively vivid and haptic"²⁰ experience of reading *Screen* with another similarly important feature it presupposes: the presence of the interactor's body as an extension of the

¹⁹ I find the quasi-non-representable quality of the Cave experiments a somewhat disquieting thought – especially so in the context of this type of exercise: an academic doctoral thesis. Elsewhere, I naively thought to dodge this limitation with an impressionistic reading of the piece, attempting an essayist description of it so as to fully convey – and in certain ways, reenact – the experience. It did not do it justice. Technically and strictly speaking, the above images are POV images (from the primary POV). Since they cannot be taken with a regular camera, these can be made as screenshots from the desktop preview – i.e., from the previewing software, which runs in mono. Obviously, if one opts to do it this way, one is not recording an embodied experience *in the Cave itself*. In an email exchange with Cave director John Cayley, he assured me that no best-standard way to document Cave pieces has been devised, which is to say that they have not used stereo cameras or even, to his knowledge, cameras tracked as the primary point of view (the POV for which the multiple displays are rendered). In addition, he explained that in order to get video recorded images from the Cave, one needs to run them in mono (so that the camera will not record a doubled/overlaid image). Hence, and this is the point I wish to stress, the video taken from a POV in mono will necessarily be displaced from the primary POV and consequently not a reenactment of the experience itself but a somewhat different performance of it (CAYLEY, personal email correspondence).

²⁰ Apud Hayles, 2008.

interface. In his essay “Playable Media and Textual Instruments” originally published in *dichtung-digital* in 2005, Wardrip-Fruin writes about the uncanny experience of “touching” words: “the language of the text, together with the uncanny experience of touching words, creates an experience that doesn't settle easily into the usual ways of thinking about gameplay or VR” (FRUIN, 2004 <http://www.noahwf.com/screen/index.html>). Why does it not settle easily? What is it about loose text that makes us wonder about the “language of new media”? Surely the estrangement cannot simply be ascribed to commonplace technological awe vis-à-vis virtual reality technologies, sensors and data flows.²¹

Hayles defines virtuality as “cultural perception that material objects are interpenetrated by information patterns” (HALYES, 1999, p. 14). According to the author, the definition reenacts “the duality at the heart of the condition of virtuality – materiality on the one hand, information on the other” (Ibid.). This is true to a certain extent. If, however, rather than a dichotomous typology we choose to regard virtuality as a site for a coupling of spheres, then I believe we can profit from theories derived from the non-hermeneutical field. In a chapter entitled “Epiphany/Presentification/Deixis: Futures for the Humanities and the Arts” in *Production of Presence: What Meaning Cannot Convey*, Gumbrecht writes that one way to account for his/our obsession or fascination with tactility is to address a preconscious desire to have the things of the world close to our skin.

Typologically speaking, the dimension of meaning is dominant in Cartesian worlds, in worlds for which consciousness (the awareness of alternatives) constitute the core of human self-reference. And we are not precisely longing for presence, is our desire for tangibility not so intense because our environment is so almost insuperably conscious-centered? (GUMBRECHT, 2004, p. 106)

Using similar logic, the tendency towards sensory-oriented technology can be understood as a reflexive reaction of a society that perceives itself as excessively contact-deprived. Consisting majorly of disembodied posthuman

²¹ As Frank Popper informs us in his *From Technological to Virtual Art* (2007), virtual art has been around since the 1980s: “technically speaking, virtual art includes elements of all art made with the technical media developed in the late 1980s. One aspect at the time was that interfaces between humans and computers – for example, visualization casks, stereoscopic spectacles and screens, generators of three-dimensional sound, data-gloves, data clothes, position sensors, tactile and power feedback systems, and so forth – allowed us to immerse ourselves completely into images and interact with them” (POPPER, 2007, p. 2).

selves and digital-flâneurs²², the paradigm of virtuality is inevitably fraught with dematerialization and immateriality. It is, thus, only to be expected that a society that bases its self-descriptive semantics on such constructs as “information society” and “techno-village” should adhere to metaphors extracted directly from virtuality: “as computers proliferate, they are endowed with increasingly powerful networking capabilities” (HAYLES, 2008, p. 47). In this sense, it might appear contradictory to suggest that one could benefit from such undeveloped concepts as *epiphany* and *presentification* to obtain general conclusions about computer-based literature and art. Be that as it may, I maintain that inasmuch as *Screen* – and many other Cave pieces such as Claire Kwong’s *Aphasia* (2010), described by the author as “a character study of an anguished writer as he struggles to express himself” (<https://wiki.brown.edu/confluence/pages/>) – confronts both critic and interactor with the paradox of tangibility and the cruel logics of simulation, they present logical case studies for the application of presence-driven theories.

One generalization to be made about Cave pieces is that they foster a tactile impulse, despite the fact that tangibility is unachievable. What is more, there seems to be full awareness in both artists and interactors that erasure of tactility is the underlying threat keeping the literary communicative processes active and interesting. This is not to undermine habitual literary discussions on the “content” of VR literature, but simply to point out that these are self-reflexive *literary* objects designed to comment on modalities of mediation. Applicable here is David Bolter’s arguably recursive logic of *immediacy* (erasure)/*hypermediacy* (the tendency towards the exacerbation of technology). Put another way, immediacy, were it to fully succeed, could never occur without its counterpart, namely, hypermediacy: “virtual reality is immersive, which means it is a medium whose purpose is to disappear. This disappearing act, however, is made difficult by the apparatus that virtual media requires” (BOLTER & GRUSIN, 2000, p. 22).

On a final note, a hermeneutical reading of *Screen* would suggest that the piece’s demand for tactility is a metaphorical reflection on the theme of memory. By attempting to place words back in their original slots the interactor emulates the precarious and *cognitive* (virtual, indeed) act of remembrance. Only, because

²² I borrow the term from Caroline Jones, one of the contributors to the compilation *Sensorium: embodied experience and contemporary art* (2006). The publication is an accompanying piece to the homonymous exhibit.

6.3.

The Fabric of Our Lives: Ubiquitous Computing and Literary Communication

In their essay “Unfolding and Refolding Embodiment into the Landscape of Ubiquitous Computing,” theorists Lea Schick and Lone Malmborg offer a prognostic view of the body as a function of distributed and shared embodiment (SCHICK & MALMBORG, 2009). This idea is not new. In her much celebrated “Cyborg Manifesto,” Donna Harroway tackles cybernetic organisms, defining the cyborg as “a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (HARROWAY, 2003). In 1999 Hayles described the processes through which information had been extracted from solid material substrates to become a “free-floating [entity], unaffected by changes in context” (HAYLES, 1999, p. 19). In more recent research, Hayles proceeds to problematize such notions (HAYLES, 2008), but the fact remains that the posthuman view is informed by a desire to articulate “the complex interplays between embodied forms of subjectivity and arguments for disembodiment throughout the cybernetic tradition” (1999, p. 7). That which remains a challenge to the discipline of literary studies is the attempt to couple concepts of distributed cognition with rigid conceptions of literature. The emergence of new language-based sensory objects activates a scenario of shifted theoretical alternatives. I have stated that I see a clear affinity between Gumbrecht’s theories of presence and contemporary technological affective tendencies, particularly those manifest in immersive installations such as *Text Rain*, *Screen* and *Listening Post*. More mundanely, recent cultural trends in ubiquitous computing and calm technologies register a need to grapple with the neglected sphere of the body, to which Gumbrecht constantly alludes in his reflections on presence.

Newly formed computational contexts and practices call for newly formed structural and semantic frameworks of literary communication. Applying the conceptual repertoire he gathers from Actor-Network Theory (ANT) Jörgen Schäfer makes a relevant point about the analysis of literary processes in computer-based networks:

The different aspects of a recipient's activity with *Text Rain* or *Wasser* – the cognitive processes activated by reading or listening to the physical movements in space, the interaction with computer-generated graphic and acoustic ‘language objects’ – and the computer-controlled activities of the technical system show that in such computer-based media dispositives it is all the more necessary to focus our considerations on the investigation of the interaction of different human and non-human actors as hybrid socio-technical ‘collectives.’ (SCHÄFER, 2010, p. 41)

The notion of human actors being, for all intents and purposes, indiscernible from non-human devices happens to be in line with conceptions of shared embodiment and distributed cognitions. In a utopian, rarefied scenario, one would be able to unproblematically argue that both views require the dismantling of the fixed concept of the Cartesian subject – despite the manifest confluence of expedient schemas of distributed cognition and multiple versions of disembodied *res cogitans*. Insofar as embodiment is regarded as contingent instantiation of thought/information, it reinforces the Cartesian tradition (HAYLES, 1999). My intention being to recover the body, or at the very least to tangentially access paradigms of “data made flesh,” I must overcome the usual disputes by stating that I partake in Hayles’ dream of “a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being (...)” (HAYLES, 1999, p. 5).

Whatever dreams (or techno-nightmares) one may nurture, there appears to be a consensus amongst cultural critics that a semantics of autonomy has been replaced by one of heterogeny: “people become posthuman because they think they are posthuman” (HAYLES, 1999, p. 6). Literature, however else defined, is a subset of cultural discourse, a socially constructed referential code acting in direct response to storage, transmission and reception media. With Schick and Malmberg, one could make a general inquiry about the implications of ubiquitous computing and “sensor-network technologies” to embodiment as both discursive practice and autonomous cultural phenomenon: “where does the body end and the technological environment begin?” (SCHICK & MALMBORG, 2009, p. 1). Their argument – largely premised on Hayles’ groundbreaking research – leads to the conventional conclusion that as technology becomes pervasive, computers are engineered to understand, anticipate and alter user needs: “an unfolded body that

doesn't end at one's skin, but emerges as intercorporeality between bodies and the technological environment" (SCHICK & MALMBORG, 2009, p. 1).²³ As medium of both reflection and articulation of cultural phenomena, literature tends to move alongside such systemic activations.

The Depth of Walls

Complex notions of embodiment open many conceptual and theoretical doors in digital aesthetics, for they presuppose a "participative status" which may or may not refer to substance (presence). Installations such as Scott Snibbe's *Deep Walls*, where participants interact with their own shadows – captured through a mechanism that then replays them –, perfectly illustrate scenarios of expanded embodiment and altered "grammars of interaction" (SIMANOWSKI, 2011, manuscript). Snibbe describes *Deep Walls* as a "projected cabinet of cinematic memories" (SNIBBE, 2003). The artist derives his title from architect Christopher Alexander's *Pattern Language*: "in the spirit of Alexander, this work gradually remembers the contents of its environment upon its surface" (<http://www.snibbe.com/projects/interactive/deepwalls>). *Deep Walls* is part of Snibbe's "Screen Series" which operates through a computer mediation device (Ibid.). Projections are programmed to react to viewers as soon as they step in a pre-determined space between the retro-reflective screen and projector (Fig. 28).

²³ Citing Paul Dourish's 2001 *Where The Action Is: The Foundations of Embodied Interaction*, the authors argue that there are no distinctions between tangible and social computing; in fact, they are "aspects of the same program" (DOURISH apud SCHICK & MALMORG, 2009, p. 1). Suffice it to say that tangible computing (as conducted, for example, by Hiroshi Ishii and colleagues at the MIT Media Lab) is an area of research devoted to the study of how the interface can be shifted "off the screen" and into the real world, whereas "social computing is the attempt to incorporate sociological understandings into interface design" (DOURISH, 2001).²³ Though my point is not to dwell excessively on Dourish's research, I am interested in how he welds the two trends of his study (i.e., tangible and social computing) with the notion of embodiment, for by embodiment the author means not simply physical presence but, more generally, "a presence and participation in the world, real-time and real-space, here and now" (Ibid.).

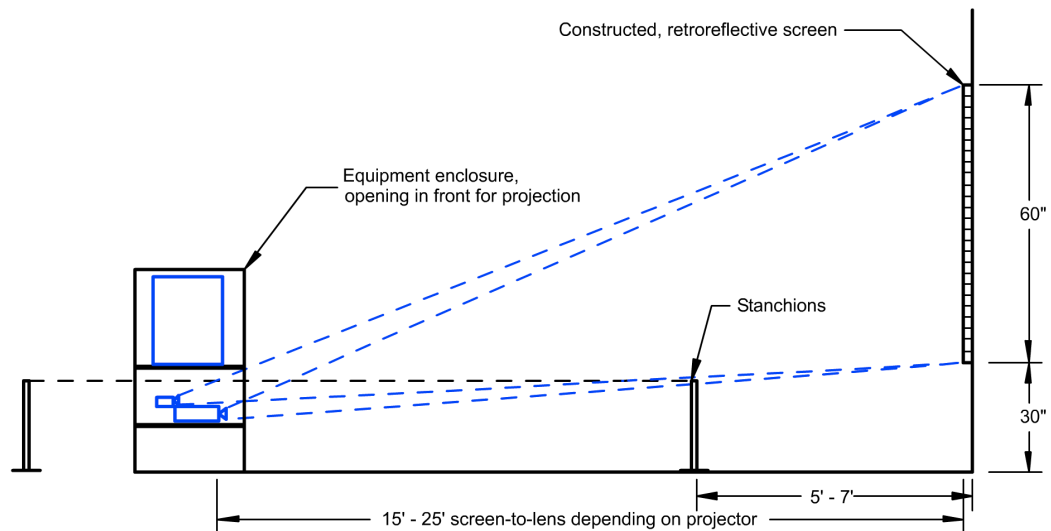


Fig 28. Diagram of *Deep Walls*, part of Snibbe's "Screen Series".

Each time a participant walks into the projection beam, the interactive wall records his silhouette. As the last interactor leaves the frame, all sixteen small screenic cabinets are activated to loop indefinitely. It is important to note that each short film produced is then replayed in the exact duration of its recording, thus generating a mosaic of asynchronous temporalities. Snibbe argues that the complexity of the temporal relationships between the sixteen frames is reminiscent of "structuralist films, the collection of repetitive videos [becoming] an object unto-itself, rather than strictly representational 'movie'" (SNIBBE, 2003). To be sure, the absence of verbal mark(er)s would place *Deep Walls* outside a distinctly literary analytical frame. Inasmuch as it recaptures the postulations of presence theory I have thus far addressed, it warrants a few observations.



Fig. 29. Image from Scott Snibbe's *Deep Walls*.

In his analysis of Snibbe's piece, Roberto Simanowski draws on Roland Barthes's theorization on photography – i.e., as the *here* and *now* that has, as a photograph, become a *there* and *then*.

In Deep Walls the *there-then* of the *moment* of recording becomes a *there-then* of the physical *result* of recording because every new person in front of the screen erases one of the prior recordings, even if she only *looks* at them. Looking is killing, to put it dramatically. (SIMANOWSKI, 2010(b), Media Transatlantic)

A typical hermeneutic reading of the installation would certainly suggest its theme to be the passage of time. The infinitesimal instant, recalcitrant to fixation, presents itself as a recurrent aporia in the history of philosophy – Augustine's tripartite model of temporal instantiation (*distentio animi*) constituting a superb example. That human traces are but tenuous imprints, vestiges susceptible to the rigid laws of transience – which photography relentlessly attempts to counter – remains a truism of cultural discourse. One need only refer to Susan Sontag's treatise on photography to be entirely reassured of the medium's irrevocable capacity to "touch" its objects with "pathos": "All photographs are *momento mori*. To take a photograph is to participate in another person's (or thing's) mortality, vulnerability, mutability" (SONTAG, 1973, p. 15).

One of the great epistemic challenges in the theorization of new media revolves around the extent to which embodiment – be it in the form of digitally

instantiated text, enhanced textiles, RFIDs (HAYLES, 2010), or interactive installations – affect our cognitive drive to make sense of the world. Schick and Malmberg hypothesize that in ubiquitous computing and sensor-network systems, “the interface is neither surface nor representation,” but a multiple interaction, a de facto integrative plane of technological effects and affects (SCHICK & MALMBORG, 2009).²⁴ As literary discourse realigns itself with digital topologies, the *literary* as a quality is once again re-coupled with mediality as its premise. Hence my earlier allusion to David Wellbery’s post-hermeneutical maxim: “mediality is the general condition within which, under specific circumstances, something like ‘poetry’ or ‘literature’ can take shape” (WELLBERY, 1990, p. xiii). To thematize the body in these altered discursive settings is, in essence, to pave the way for an alternate semantics of corporeality and world-appropriation. I previously mentioned the “hermeneutically induced” fear of a loss of the body, which would be offset by a saturation of technological trends and devices aimed at reenacting and enhancing sensory experiences – i.e., touch interfaces and intelligent surfaces. In this scenario it might be admissible to evoke a phenomenology of relations, thus implying a “synkinesthetic being in the world” (SCHICK & MALMBORG, 2009, p. 2).

²⁴ The authors refer to Gilles Deleuze’s reading of Spinoza’s concept of *affect*. In his 1978 *Lecture on Spinoza*, Deleuze criticizes the two French translations of the two terms employed in Spinoza’s *Ethics*. The first is *affectio* and the second *affectus*: “In Spinoza’s principal book, entitled *Ethics* and written in Latin, one finds two words: *affectio* and *affectus*. Some translators, quite strangely, translate both in the same way. This is a disaster. They translate both terms, *affectio* and *affectus*, as ‘affection.’ I call this a disaster because when a philosopher employs two words, it’s because in principle he has reason to, especially when French easily gives us two words which correspond rigorously to *affectio* and *affectus*, that is ‘affection’ for *affectio* and ‘affect’ for *affectus*. Some translators translate *affectio* as ‘affection’ and *affectus* as ‘feeling’ [sentiment], which is better than translating both by the same word, but I don’t see the necessity of having recourse to the word ‘feeling’ since French offers the word ‘affect.’ Thus when I use the word ‘affect’ it refers to Spinoza’s *affectus*, and when I say the word ‘affection,’ it refers to *affectio*” (DELEUZE, 1978 <http://www.webdeleuze.com.php/texte>). The importance of the distinction lies in the fact that affect (*affectus*) – non-representational in a manner akin to the logic of presence – ought to be differentiated from the word *idea* – defined precisely for its “representational character.” The principal distinction is not one between idea and effect but that between effect and affect. While the former is ruled according to the laws of causality – i.e., z performs action x and thus obtains an outcome y –, the latter partakes of the indeterminate and indeed intractable dimension of life. In Deleuzian terms, affects are becomings, they are processes, not static entities (DELEUZE, 1978). Recast in terms of our current discussion, affects can be regarded as successive productions of presence.

6.4.

Concluding Remarks: Open Endings and Statistical Virtuositities

Context-based performance pieces such as Mark Hensen and Ben Rubin's *Listening Post* (2003) quite beautifully invoke the conflicting affective and material complexities I have thus far been addressing. *Listening Post* is an immersive installation which utilizes natural-language processing algorithms and a commercial text-to-speech (TTS) engine to parse and synthesize snippets of online conversations culled in real-time from unrestricted chat rooms, bulletin boards and online forums. The data stream collected (text) is simultaneously relayed in varying visual patterns across a suspended array of vacuum fluorescent chain-circuit displays (HANSEN & RUBIN, 2002). Apart from a two-hour delay, the piece, currently on exhibition at the London Museum of Science, happens in real time. As in *Text Rain*, to describe – or even “accurately” record – the interactor's experience in *Listening Post* is an approximation effort at best. As the words are spoken, greenish-turquoise neon lights each one of the 231 suspended vacuum fluorescent circuit displays (VFD). A statistical analysis server selects particular phrases to be scrolled across the suspended grid.

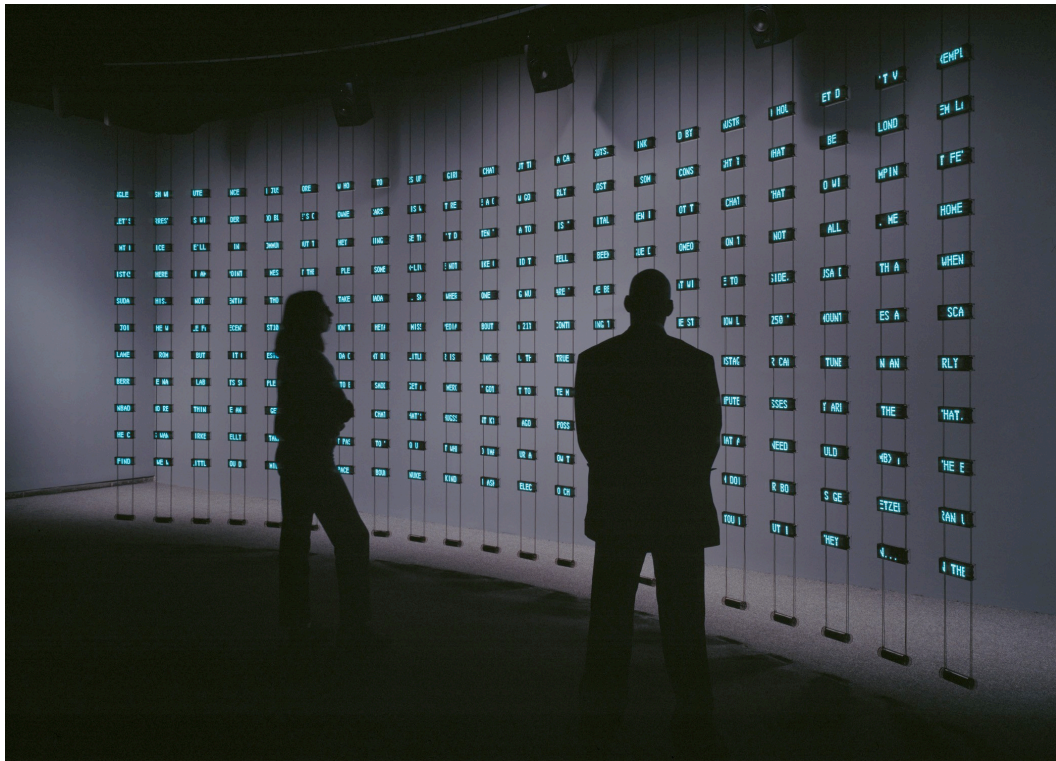


Fig. 30. Still image from Ben Rubin and Mark Hasen's *Listening Post*.

Despite the incontrovertible presence of obtrusive technological apparatus in its conception and presentation (close-circuitry resembling surveillance posts and green-on-black DOS character sets), the experience of *Listening Post* requires an extemporal (albeit intellectually problematic) “being there,” a premise common to all performance art.²⁵ With Christiane Paul one might argue that from a historical art perspective, the strong instruction-based nature of new media art displays traces of previous movements such as Dada and Fluxus. More importantly, “from the macrocosm of cultural practice to the microcosm of an individual artwork, the (immaterial) links between materialities are at the core of digital media” (PAUL, 2007, p. 252). As the focus of this subchapter lies in the epistemic integration of theories of presence with the “flickering” ontology of digital literature, I shall refrain from the debate revolving around preservation and storage of new media literature and art in general. With specific regards to literary objects, I side with Katherine Hayles as she suggests that the interaction of

²⁵ In this regard, insofar as performance can be defined as a time-inscribed moment of reception, I subscribe to Zumthor's distinction between “text” and “work”: “On the one hand, text is a unified linguistic sequence whose overall meaning cannot be reduced to the sum of particular effects of meaning evoked by the sequential parts of the text. On the other hand, work is what is poetically communicated (text, sounds, rhythms, optical elements). The term includes the totality of performance characteristics” (ZUMTHOR, 1988, p. 220).

body and machine gives rise to intermediating dynamics between them. Consequently our cultural moment imposes a framework wherein “digital literature can be understood as creating recursive feedback loops among embodied practice, tacit knowledge, and explicit articulation” (HAYLES, 2008, p. 131). As a rhetorical and methodological stratagem whose sole purpose is to redirect the argument to the issue of production of presence as it relates to digital literature, I will resort to Zumthor’s definition of performance as a larger poetic time-inscribed moment of reception and posit that *Listening Post* constitutes something of a magnificently virtuosic example of digital literature/performance art/immersive installation. Ben Rubin and Mark Hansen’s work repels consensual readings and invite conceptual and aesthetical analyses informed by theories of difference.

In *Listening Post*, the premise is deceptively uncomplicated: what would 100,000 people chatting online look and sound like? When commissioned by Bell Laboratories to provide a snapshot of the Internet, statistician and media theorist Mark Hansen and sound artist Ben Rubin may have been given as colossal a task as the subject of their depiction. In a paper entitled “Listening Post: Giving Voice to Online Communication,” included in the proceedings of the 2002 International Conference on Auditory Display, Kyoto, the authors write:

While it is beyond our capabilities to grasp the millions of simultaneous transactions taking place on the Internet, it is of compelling human interest to make sense of such environments in the large, to grasp the rhythms of our combined activities, of our comings and goings. Our inability to orient ourselves or otherwise fully perceive a larger environment is not a phenomenon unique to the virtual world. As communication and transportation technologies accelerate our movements and interactions, the spaces we live in are receding from our ability to directly sense them. (HANSEN & RUBIN, 2002, p. 2)

The authors’ challenge is reminiscent of the Borgesian unconscionable cartographic allegory: a map so perfectly detailed that it would cover up the entirety of the territory it was meant to depict. Hansen and Rubin’s option to privilege aesthetics over mimetic “accuracy” proved to be significantly more clever than the alternative. The authors offer a captivating rendition of what it might be like to partake in these cyberspatial realities and, in the process, successfully tackle the multiple semiotic implications and epistemological difficulties embedded therein. *Listening Post* is not nor is meant to be a

“realistic” representation of 100,000 people chatting. Rather, as theorist Rita Raley posits in her excellent reading of the work, “the piece utilizes natural-language processing algorithms to parse, filter, and *re-present* their chat messages” (RALEY, 2010, p. 24). For our purposes, emphasis should fall on the verb *re-present* – here recast in accordance with Gumbrecht’s schematics: as in, to *make present again in a tangible fashion* as opposed to symbolic representations of an absent entity (GUMBRECHT, 2002).

The preoccupation of the creators of *Listening Post* with “making sense” might appear naïve in the grand scheme of epistemological discussions. However, the artwork itself is anything but simplistic, and may be viewed as a sonic-imagetic allegory of Web (mis)communication. To once again resort to Luhmann’s recursive communicative framework: if society is to be conceived of as a social system that consists solely of communications, then it can only reproduce communications by means of communication. In this sense, it could be asserted that all other non-communicative conditions – chief among them, human consciousness – belong to the system’s environment (*Umwelt*). This is not to undermine the importance of the environment, but simply to reiterate that since communication rests on a contained difference between information and utterance, then it is inherently contingent (LUHMANN, 1986). Nowhere is this contingency more blatant than in the second movement²⁶ of *Listening Post*. There, one is confronted with a synthesized TTS (text-to-speech) engine, which speaks out – in algorithmically parsed vocal cadence and piano accompaniment – serializations of the pronoun “I.” At this point, the interactor’s semiotic functions are galvanized in conjunction with rhythmic responses to the poetic trope of repetition.

In several instances during the course of the installation, the sheer speed of scrolling text and constant breaks with Western print conventions give rise to issues of legibility – illegible text presented as “post-alphabetic” objects – as both Raley and Simanowski astutely point out in their readings of Ben Rubin and Mark

²⁶ I borrow the term from Rita Raley’s reading of Ben Rubin and Mark Hansen’s piece. Equating the algorithmic structuring of *Listening Post* to those of symphonies and Gregorian chants, Raley speaks of movements rather than sterile “parts”: “The installation is divided into seven movements or scenes: seven sets of display algorithms structure the individual movements of the piece, filtering and organizing data so as to allow for the discovery and presentation of different patterns, signals rather than noise. While the dominant sensorial quality of the first six scenes alternates between the visual and the aural, the last culminates in an operatic synthesis of image and sound, textual script, and musical score” (RALEY, 2009, p. 24).

Hansen's work. (RALEY, 2009; SIMANOWSKI, 2011). In the celebrated "I" movement, however, something entirely different occurs as snippets culled from open chat rooms are read and "sung" back to the spectator with cadence remnant of what Raley hears as (what I can only assume to be monophonic) Gregorian chant (RALEY, 2009, p. 26).

I am
 I am
 I
 I am
 I am of
 I am 18
 I am
 I am nice
 I am 26
 (Rayley's sample)

Rubin and Hansen recall that in an early public performance at The Kitchen in New York City (April, 2001), they experimented with data gathered from 50 forums. Attempting to synthesize four simultaneous voices (reading content from different forums), the authors noted that intelligibility was drastically improved if they assigned each voice to a separate speaker placed in the four corners of the performance space (separated by 30 feet):

As expected, spatial separation seemed to improve the listeners' ability to understand what was being said. We made further gains by assigning different pitches to voices from different speakers. Subjectively, we also found that monotone or chanting voices were easier to separate, and provided a more cohesive mix. (RUBIN & HANSEN, 2002, p. 2)

As a culturally-specific object, *Listening Post* can be construed as an audio-immersive-literary response to the contemporary experience of visual/sensory overload. In their refusal to reduce representation to synthesis, the artists grapple with the complexity of the very postmodern feeling of loss of solid ground, educated, no doubt, by conflicting modes of self-description: "The question is no longer 'what should I be?' but rather 'how should I be?'" – Luhmann writes (LUHMANN, 1998, p. 7). *Listening Post* is not simply a repository of digitally-encoded aural footprints left by thousands of lonely souls and extending throughout the limitless void of cyberspace: it is an attempt to express the

paradoxical experience of being alone in a crowd.²⁷ The intermittent beeping accompanying the algorithmically generated piano music in the “I” movement – which, incidentally, is designed to sort out phrases according to length and topical parameters – adds cadence and harmony to the synthesizer’s utterances, thereby conveying something of a communal heartbeat monitor. Even from a video recording of *Listening Post*, one has the sense of immense pile of lives lived in the communal loneliness of the Web chat rooms. Asynchronous slices of real time gathered in both unison and dissonance – utterances raised to the level of information and disguised as art. Or is it the opposite? As if they warranted such emphasis, as if they solicited such attention. “Words after speech, [no longer] reach into the silence,” as the poet T. S. Eliot once wrote. Instead, they linger – as sound waves do –, forever reverberating in this most peculiar of postmodern cathedrals. As was the case in *Text Rain*, computer-based processes of literary communication oscillate in intermittent patterns of (textual) instantiation. The result is thus the interplay of embodied sensory affects (productions of presence) and disembodied semantic mediation (meaning attributions). Is it that contingency (indeterminacy) is greater now? We should keep open channels and restless minds.

AA

²⁷ Cf. Raley: Referring to Elias Canetti’s *Crowds and Power*, Raley structures a significant portion of her argument around the distinction between crowd and public.