Aesthetic Intelligence Experiments and New Frontiers. An Art-based research laboratory translated into a Critical Design strategy

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Abstract: While Design continues its expansion, this paper shows via the many experiments of an art-based research lab, how Critical Design is converging toward post-conceptual Art, embracing an aesthetic intelligence. This creative, critical and engaged mindset brings now light on Design Thinking, and on the role of artists/critical designers in organizations.

Keywords: Aesthetic intelligence, Art-based research, Critical design, Design-thinking

1. Introduction: A theoretical crossroad

1.1 Converging trends

Aesthetics has always been a multidimensional theoretical field, and various domains make it evolve following different reasonings, whether design, art, cognitive sciences, or even economy. We can see among them various historical trends, and this paper will try to bring new conceptual hypothesis at the crossroads of several of them.

On the Design side, the classic “form-function” formula has shifted with the century to a more process oriented vision and became a “creative problem-solving” method, as part of a broader innovation agenda. This naturally entailed the development since the 90’s of Design Management (Borja de Mozotta), Design Thinking, Organizational Design (Immaterial Economy paradigm), Social Design (as part of Social and Societal Innovation), and UX Design (in the Experience Economy). More recently, Design’s most-advanced practices and researches took a new turn with the emergence of Critical Design (Antonelli), Speculative Design (Dune), Fiction Design (Nova), Political Design and Democratic Design, that introduce deeper cultural, philosophical, and anthropological concerns. With no doubt, the science of Design is gaining a higher cognitive dimension consolidated by the vigorous development of academic research laboratories following the Bologna Process.
Simultaneously, the turn of the century with the rise of information technologies and the digital era, led to the profound paradigm shift toward Immaterial, Creative and Experiential economies, where knowledge, creativity and aesthetic experience have become core driving forces. Even the supposed to be “superficial” aesthetic experience of fashion, images, and social networks nurture smart and sophisticated strategies in the attention and affective economy, and touch our deep cognitive capacities (Stiegler) beyond semiotic concerns. The turn of the digital and collaborative economy has created a new “shared culture”, a new aesthetic, and is part of deeper societal transformation where start-uppers, makers, designers, activists and artists have become the visionary “creative leaders” and “change-makers”. What is aesthetics’ power at that level of entanglement of art, design, cognition and society? Even capitalism is now fundamentally aesthetic (Lipovestski).

In conjunction with these societal, cognitive and digital evolutions the field of contemporary art has also broken apart its traditional creative formats and aesthetic codes. Beyond beauty, sensations and subjectivity, Art has lead aesthetics to become experimental, conceptual, semantic (Danto, Goodman), performative, relational (Bourriaud), and now post-internet. In fact, while design has addressed the form-function equation and the notion of use, art has focused on form-content, always opening new creative hypotheses of both sensing and thinking. In a way, the expanding art domain has become a vast formal, conceptual and affective laboratory around the aesthetic experience, contributing to knowledge production (Latour). Among other domains, Art’s ecosystem is pivotal to understanding the experiential economy and creative ecology of society. Its specific intelligence, mixing creation, sensation and cognition, is becoming “useful” in a new manner, and recalls design aesthetic concerns. As a matter of fact, a new generation of critical artists and collectives are once again striving for a social engagement, asserting themselves as efficient and powerful forces of transformation in society at large.

How far away is this art from critical design thinking? How can they be combined to reconsider the societal creative engine at large and perform an aesthetic intelligence?

1.2 Reverse engineering of the design of an art-based research strategy

Instead of a theoretical analysis, we will share the reasoning and the many experiences pursued by LIID (Laboratoire d’Ingénierie d’IDées / Idea Engineering Lab), an art-based future think-tank, which I created in Paris in 2000 during the rise of the immaterial economy and digital era. We will see how these experiments can be translated and what it means in the language of design research. In the fist part, we’ll see how LIID’s originally focused on the possibility and value of aesthetic intelligence in order to re-embrace the cognitive dimension of art practice and experience; how LIID positioned itself as an experimental art enterprise, questioning the aesthetics of organizations, and as a free art-based research space pioneering new creative and critical future visions. How does this experiment echo and contribute to critical design? In the second part, we will further investigate on LIID’s organizational design research on various structures (companies, cities, collectives, universities, etc.), and its concept of aesthetic audit, as an alternative and speculative Design Thinking approach. A third part will focus on LIID’s research on the aesthetics of knowledge, including topics such as the diagrammatic language and conceptual innovation, new layers and dimensions which the critical designer could compose with.
2. An art enterprise as a critical design thinking and knowledge design strategy

2.1 UX analysis of a conceptual art practice: the design of a concept

Following what would be called today a UX analysis of the position of a conceptual artist, the original reflection of LIID in 1998-2000 was that the practice of art, did not limit itself to studio production and exhibitions in profit and not for profit galleries. Part of the practice consists in developing a thorough observation of society and a critical analysis of the evolution of art. Conceptual artists often wrote and produced discourse within a broader peer community composed of artists, critics, academics, collectors, or any passionate or self-declared art expert (insofar as art is not restricted by academic rules), who shared their live practice of creative vision making. How could we address that expanded and interconnected art practice without separating the perspectives of both creators and engaged viewers? For quite a few decades now, since Marcel Duchamp, art had not existed without the viewer’s contribution.

On the other hand, it is clearly a historical and theoretical dead-end to speak about conceptual art in opposition to formal, collectable and sensorial art - ever since Ikea’s shelves look like Donald Judd sculptures and fancy collectors have found ways to purchase and speculate on Lawrence Weiner’s quasi-immaterial art statements or Fluxus’ ephemeral artifacts (Siegelaub). Every conceptual art piece was still formal and capable of creating emotions and affects while formal art could carry a powerful and expanded critical vision. It is in this context that N. Bourriaud developed in 1999 his concept of relational aesthetics. The concept sought to highlight the interconnectedness between productions, peers and many forms of knowledge and practice. But it lacked the goodwill and broad intelligence which artists or engaged viewers catalyzed in the aesthetic experience.

Maybe, very pragmatically, the creative solution was to start speaking of what could be an aesthetic intelligence as a convenient theoretical shortcut - similar to the ready-made concept invented by Duchamp - to fully acknowledge an artistic paradigm shift. LIID was founded in 2000 with the primary intention to concretely test this innovative idea engineering or concept design, to see how it could work in practice, as a flexible and adjustable semantic prototype, which could be applied in various practical contexts and situations. No clear definition of the concept was given by LIID in order to preserve its ambivalence and semiotic elasticity. Using it almost as a poetic formula rather than a precise notion allowed for broad interpretation and contextual experimentation. As a first art-based research project, LIID interviewed about 80 people during the 2000 FIAC art fair in Paris, asking: “If Art was a form of intelligence, what definition would you like to give of it”? The resulting 18mn sound-piece (translated as an art video and exhibited many times since) revealed a large panorama of responses, displaying the many facets and interpretations conjured up by such a proposition.

2.2 Design-Thinking of an art enterprise as a social innovation

Another aspect of LIID’s initial strategy was to include a reflection on value creation and on economic models in the early age of the immaterial and creative economies. Statistics showed that art practices were often micro-enterprises that were hardly sustainable given their low level of profitability, with only a few artists breaking through into the art market. Although many states support art with grants, purchases and commissions of all kind, it is not a sustainable activity over the long run as it invariably leads to the absurd “artist-civil servant” model. This explained how critical art came to a conceptual dead-end, as it originally aimed to resist market selection but fell into the clutches of institutional mechanisms or political instrumentation.
Many artists actually practiced art as a hobby or as a side job (besides teaching for those who had the right degree), unless there was “family money” somewhere in the picture. This situation contributed to keeping art’s experience and practice the privilege of the happy few. In 2000, confronted with such a systemic economic impasse, LIID’s second ambition was to experiment the « artist-enterprise » model (maybe an early version of the “creative start-up”), to test a new sustainable economic and organizational model (now to be called a canvas) for artists. Although these terms had not yet been coined at that time, LIID were researching a social and cultural innovation solution. These societal challenges are now being fully addressed by critical designers. LIID’s experimental process also echoes recent reflections on resilience and permaculture-innovation, which encourage actors to be economically viable and more autonomous.

Beyond the art world, many creative industries (as part of emerging urban cultures) at that time, had created successful economic models based on creativity. Since the 80’s, quite a few artists had engaged and created value in collaboration and within these industries and sometimes with bigger corporations. There was always a risk of compromising one’s free creative process, critical thinking and falling prey to the event-promotion mass industry.

As a critical, alternative lab and niche strategy, LIID was set to question and explore the rise of this new form of post-fordist capitalism, as a new frontier of conceptual art and economy. LIID wanted to create a new art position within the knowledge economy. It made sense to highlight the value of art as a laboratory for knowledge creation, vision-making and creative goodwill (for engagement, transformation, and sharing). Reflexively, it also meant applying immaterial economy concepts to art by acknowledging the value of its intellectual capital, tacit knowledge and aesthetic intelligence, for organizational renewal, innovation and the design of future visions. LIID’s name and strategy was based on these concerns. More than fifteen years later, these fundamental reflections and conceptual design experiments on the artist-enterprise model still serve as a relevant conceptual matrix to understand the new start-up culture and its creative value system. They are part of the future insights brought by LIID in various prospective and societal innovation contexts.

3. **Aesthetic Audit** as organizational design and Design Thinking lab

3.1 **Aesthetic intelligence** conceptual engineering and service design

If conceptual art practice could be integrated to the immaterial economy paradigm, how to apply and make use of conceptual art and aesthetic intelligence within that framework? Could LIID offer aesthetic intelligence services to companies and organizations? As the economic context was becoming increasingly blurry, a new post-conceptual art outlook could help organizations to decode their immaterial assets and critically assess their creative potentials.

Traditionally creativity sounded light and fun, and focused more on idea generation than on vision and decision-making. Creative services were spontaneously oriented towards the marketing and communication departments of a company. To the contrary, LIID was driven towards strategic innovation where critical questions and disruptive ideas could be openly addressed. In that respect, aesthetic intelligence sounded more efficient and far more serious, smart and appropriate for knowledge-intensive art services, where the creative formalization could remain economic, sober and minimal (as opposed to the event-planning industry mass production and disposal of ephemeral, creative installations). To test its vision, LIID submitted in 2000 an article entitled “Aesthetic
Intelligence dedicated to companies”¹ to the Idea section of Les Echos (a major French economic newspaper), which was published three days later. Aesthetic intelligence was shortly described as a creative decision-making tool inspired by the artist’s perspective and thought-process. It was meant to help the mind address the rapid transformation of the contemporary world, and to synthesize three types of « factors » (sensorial-emotional, relational-theoretical, and paradoxical) in the creative process and agency making. This article provoked some interesting and encouraging reactions from professionals and corporations. After this, LIID designed a palette of aesthetic intelligence services for organization on its website. These were not really promoted and developed before 2003 (exhibitions was the first priority): Perspective (Aesthetic Audit) involves the design of a conceptual and strategic portrait of an organization; Projection provides future visions and insights; Solution addresses a specific innovation or design challenge; Catalysis feeds and orchestrates a group’s creative research process.

3.2 Speculative mapping of practices and organizations ecosystem

Pursuing the art-based research on aesthetic intelligence, LIID designed in 2002 the “Aesthetic Intelligence Yield” (Fig. 1), a conceptual diagram published in a Canadian art review. It suggested a speculative mapping of the degree of aesthetic intelligence in the extended scope of human practices, ranked according to their level of organization (abscissa) and abstraction (ordinate), and in which an ecosystem of aesthetic visions (arrows) circulate. The suggested evaluation (bars) was neither financial nor scientific, but showed an “aesthetic intelligence yield”. This time, the basic aesthetic intelligence definition given (legend) is “the ability to couple meaning with practice”, as an expansion from the form-content equation. If, as expected, the aesthetic intelligence rate was higher in the free art zone (on the left) where aesthetic intention is pivotal, there was a degree of aesthetic intelligence, of artfulness, in all domains, although it could be more costly. For instance, it was much harder to make a complete mathematical demonstration than to write a poem expressing the same formula. Similarly, it was far more complicated to create a full factory to activate a creative societal vision, than an artwork synthesizing a similar view. On the left, the free and agile art zone served as a dynamic source of aesthetic vision in the ecosystem. Exhibited a few times, LIID also used this speculative map to visualize the ecosystem of practices and organizations, in some of its future research projects, about urban transformation or in relation to the evolution of capitalism². Of course these speculative maps are not « scientific ». They belong to art’s “out of the box” critical hypotheses. As a reminder, the aim of this article is not to evaluate academically these experiments, but rather to unveil the critical design methodology of LIID.

¹ Bidault-Waddington, R. (2000). “L’intelligence esthétique au service de l’entreprise”, Ideas Section, Les Echos journal, April 25th.
² Such as in 2012, in the framework of a societal innovation program at Aalto University, Design Management Dpt, with the Institute For The Future, Palo Alto, where LIID designed other maps of global practices questioning the profit vs not for profit border.
3.3 Aesthetic audits as Design Thinking tool

In 2003, LIID prototyped its first aesthetic audits on a company (an art gallery) and an urban case study (Christiania, the self-organized free-town of Copenhagen), using the same critical canvas called “Perspective”. It consisted in assessing an organization based on 24 facets classified in 4 main parts: Core architectures (visible and invisible infrastructures seen as « meaningful shapes »), Cultural style (modes of expression and experience), Relational values (multiple contextual interpretations and points of view), and Mindscape (immaterial and imaginary capital), to appreciate its creative potential or dissonance. The ultimate goal was to reveal the organization’s fundamental vision and

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3 Bidault-Waddington, R. (2003). Knowledge economy master thesis, supervisor Ahmed Bounfour, Paris East University.

4 Bidault-Waddington, R. (2006). “Christiania in Perspective: an experimental aesthetic audit of a city within a city”, in Carrillo, J. (ed.), Knowledge Cities, Approaches, experiences and perspectives, Elsevier Butterworth Heinemann - Political Science, New York.
intention, which LIID synthesized in text and visuals (photographs and diagrams). As opposed to the practical canvas, or to a semiotic analysis, Perspective was a speculative and subjective tool that helped generate new visions and future value(s) sources on a holistic level. Perspective didn’t separate economic performance from other values, as business and legal models for instance are also seen as implicit and meaningful forms of an organization, which could be aesthetically interpreted. Following these experiments and as a way of appreciating their effect, LIID was admitted in the New Club of Paris, an international research and policy-making network on innovation and the knowledge society, which led to several projects in various countries. And with the Perspective audit and Projection of Christiania, LIID was designated in 2004 as one of the three laureates of a future urban competition commissioned by the City of Copenhagen. Published in 2006, the audit report is still in 2016, regularly if not increasingly downloaded on academia. Among many other critical design topics it addresses, Christiania remains an exemplary case study of a creative and self-governed community, a living prototype of a grass-roots collaborative and autonomous city.

On urban cases, LIID complements its audit with photographic research, tests other speculative Design Thinking canvases, such as on the gigantic Greater Paris emerging metropolis. Initiated in 2008, LIID’s future research project joined in 2012 the Semiotics of Art and Design Lab, University Paris 1 Pantheon Sorbonne, and the Paris 2030 research program (twice awarded in 2013-14 and 2015-16). With this project, LIID started to engage with the design research community. The aesthetic audit zoomed on the creative communities and constellations, as pivotal elements of urban (imaginary and collective intelligence) transformation. The broader urban vision was based on the theoretical, methodological and poetic metaphor of the urban constellation, which helped model the metropolis’ complexity and design creative solutions on various aspects (urban planning, governance, hybrid programming, digital development, etc.). It included several conceptual maps (Fig. 2) and workshops conducted with Art, Design and Art Management, Sustainable Development Management and Urban Design students. Always designing new art-based research methods, and as a design fiction experiment, LIID produced in 2015-16 a future fiction of the metropolis at horizon 2030-35, which should also serve as a prospective manual beyond the Greater Paris case study.

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5 Bidault-Waddington, R. (2010). "Témoignage: Stratégie d’une self-made artist", in Toma, Y., Jamet-Chavigny, S., Devèze, L. (eds.). *Artistes & Entreprises*, ERBA/ Art & Flux (CERAP, Paris 1 Pantheon Sorbonne University), 2010.

6 Bidault-Waddington, R. (2014). "Paris Galaxies, *Aesthetic Audit* critical report", in Schramme, A., Kooym, R., Hagoort, G. (eds.), *Beyond Frames, dynamics between the creative industries, knowledge Institutions and the urban context*, Antwerp University, Eburon Publishing.

7 See project website: www.parisgalaxies.net

8 Bidault-Waddington, R. (2017). *Paris Ars Universalis, scenario-fiction d’un futur Grand Paris*, Avant Garde Collection, L’Harmattan.
4. Art-based \textit{polygonal} research and cognitive design

4.1 Staging collective aesthetic intelligence via \textit{polygonal} research protocols

2008-09 is the moment when LIID broadened its scope of action and started to work in an academic context, and design collaborative art-based research methods to create with collective (aesthetic) intelligence. From a niche enterprise involved in experimental post-conceptual art, with regular art exposure (exhibition and publication of diagrams, image compositions, drawings, and texts) and a few clients, LIID shifted to a more open knowledge production process and a future think-tank strategy. It initiated broader art-based research project, was invited to take part in various academic research projects (art & design, economy, urban design), and worked on a regular basis with an international future trend agency in Paris (socio-cultural, urban and global perspective).

Furthering its work in the field of conceptual and methodological innovation, in 2010 LIID conceived the new principle of a \textit{polygonal} research, which consisted in collecting, staging or visualizing as a spatial panorama, a diversity of insights on a given topic. Building on its multifaceted core aesthetics (already manifested in its sound inquiries, image compositions, and aesthetic audits’ multi-dimensional approach), LIID introduced a new spatial concern and abstract geometry, both formally and conceptually in the creative and now \textit{polygonal}, knowledge production process.

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\textsuperscript{9} Bidault-Waddington, R. (2012). “Paris Galaxy Inc.: a conceptual model and holistic strategy toward envisioning urban development”, Parsons Journal for Information Mapping, Volume IV, Issue 1, New York.
First experimented in 2010 within the context of an art group show\textsuperscript{10} in NY, LIID designs and stages polygonal performative installations to facilitate the sharing, creative interpretation and organization of critical content, in order to bring insight to the knowledge experiment. Beyond the co-design experience, method and workshop space, polygonal research serves as cognitive design principles and platform, in which LIID curates inspirational material (artistic and non-artistic, including LIID’s productions), critical questions and future insights (such as design fiction content). It also raises awareness about the societal impact and the sustainability of the experiment.

\textbf{Figure 3: Bidault-Waddington, R. (2016), ”Semioscape” diagram in Semiospace, a spaced out artistic experiment, Clinamen publishing, Geneva.}

4.2 Knowledge Design and \textit{Semioscape} mapping

Since its inception, LIID has been focusing on aesthetic intelligence and on art as a cognitive capacity which implies formal vision of knowledge and cognitive production, as a kind of \textit{mental matter}\textsuperscript{11}, that can be sculpted, organized, spatialized, sensed and shared. As we saw, LIID designs concepts such as aesthetic intelligence, aesthetic audit or polygonal research, that produce both an instant effect/affect as well as multiple meanings. The diagrammatic language, which reveals knowledge as

\textsuperscript{10} See group show “The Incidental Person (after John Latham)”, curator: Antony Hudek, Apex gallery, NY, 2010.

\textsuperscript{11} See solo show “Mental Matter”, Espace d’En Bas gallery, Paris, 2011.
both content and form, is particularly appropriate and useful to express aesthetic intelligence. Polygonal (real and virtual) spatialization is another art strategy used by LIID to play with the aesthetics of knowledge, the geometry of point of views (vs plain dialectic dualism), and the controversy map. The latest Polygon session (2014-16), which consisted in a collaborative and reflexive conference-performance, a book\textsuperscript{12} and two exhibition-research projects in Switzerland, goes deeper in this direction. The resulting diagram “Semioscape” (Fig. 3) architectures a cognitive symmetry between the “semio-dimension” of space, and the spatial dimension of knowledge. It also introduces (on the right side), a new critical perspective of/from the digital era, where everything from space and matter to knowledge and experience become data. This requires resetting many notions, such as sensorial, attention and cognitive realities behind the aesthetic intelligence experience. We are now bathing in a collective and speculative aesthetic intelligence atmosphere. In this immersive paradoxical reality, affects, visions and empathy shift our center of gravity, persona and rationale. This prospective vision of the aesthetic (intelligence) experience echoes current research on digital humanities (Stiegler, Barad) and on post-internet art, where even the construction of the self becomes a laboratory in constant recreation. Persona(l) design becomes a life-style and a mode of existence where aesthetic intelligence is a source of resilience and empowerment.

In that emerging societal paradigm, LIID is currently re-focusing on the “paradoxical factors” at play in the aesthetic intelligence agency via new artistic research strategies at the fringe of awareness. Placing the center of attention in the micro gap between sensorial experience and conscious cognition (whether it be knowledge or imagination), LIID’s latest experiments combine a collaborative, photographic, and improvisational protocol to be collectively performed in the urban space and a series of narrative experimentation episodes published in various publications. To be continued.

5. Conclusion

This latest art-based research can be seen as part of UX Design’s most advanced research. LIID practices show correspondences between various aspects of critical art’s and design’s agendas. They materialize their current convergence and mutual ability to address anthropological concerns and future horizons.

Ultimately, as a proper critical and reflexive analysis, the true “sensitive question” raised by this paper is if conceptual art practice were to contribute to the future of the immaterial economy, how could it improve it by joining forces with critical design and aesthetic intelligence? It touches on artists’ deep goodwill, which remains slightly more ambiguous than that of designers. This is probably the last blind spot. Although art and critical design are now useful aesthetic intelligence research detours, designers - more than artists - seem more openly willing to address societal innovation’s future challenges. They might be the ones capturing the economic value of this new aesthetic intelligence laboratory.

\textsuperscript{12} Bidault-Waddington, R., Menetrey, S. (2017). \textit{Semioscape, a spaced out artistic experiment}, Clinamen publishing, Geneva, 2016.
References

Barad, K. (2003). "Posthumanist Performativity - Toward an Understanding of how Matter comes to Matter", in Signs: Journal of Women in Culture and Society. University of Chicago. Vol. 28. No. 3. p 801-831.

Bidault-Waddington, R. (2000). “L’intelligence esthétique au service de l’entreprise”, Ideas Section, Les Echos journal, April 25th.

Bidault-Waddington, R. (2002). « Aesthetic intelligence yield” diagram, C Magazine, Toronto.

Bidault-Waddington, R. (2006). “Christiania in Perspective: an experimental aesthetic audit of a city within a city”, in Carrillo, J. (ed.), Knowledge Cities, Approaches, experiences and perspectives, Elsevier Butterworth Heinemann - Political Science, New York.

Bidault-Waddington, R. (2010). “Témoignage: Stratégie d’une self-made artist”, in Toma, Y., Jamet-Chavigny, S., Devèze, L. (eds.), Artistes & Entreprises, ERBA/ Art & Flux (CERAP, Paris 1 Pantheon Sorbonne University), 2010.

Bidault-Waddington, R. (2012). “Paris Galaxy Inc.: a conceptual model and holistic strategy toward envisioning urban development”, Parsons Journal for Information Mapping, Volume IV, Issue 1, New York.

Bidault-Waddington, R. (2014). "Paris Galaxies, aesthetic audit critical report", in Annick Schramme, René Kooyman, Giep Hagoort (eds.), Beyond Frames, dynamics between the creative industries, knowledge Institutions and the urban context, Antwerp University, Eburon Publishing.

Bidault-Waddington, R., Menetrey, S. (2016). Semioscape, a spaced out artistic experiment, Clinamen publishing, Geneva, 2016.

Bidault-Waddington, R. (2017). Paris Ars Universalis, scénario-fiction d’un futur Grand Paris, Avant Garde Collection, L’Harmattan, Paris.

Borja de Mozota, B. (2001). Design Management, Editions d’Organisation, Paris.

Bourriaud, N. (1998), Esthétique relationnelle, Les Presses du Réel, Dijon, France.

Latour, B. (2011). « From Multiculturalism to Multinaturalism: What Rules of Method for the New Socio-Scientific Experiments » in Nature and Culture Vol. 6, n°1, pp. 1-17, Spring 2011.

Melles, G. (2011). Critical Pluralism / Pragmatism and Design A Generational Attitude, in Collection Issue #3, Summer 2011, pp 53-59.

Shusterman, R. (1997). “The End of Aesthetic Experience” in The Journal of Aesthetics and Art Criticism, Vol. 55, No.1, pp. 29-41.

Siegelaub, S. (1989). "Quelques observations à propos du soi-disant 'art conceptuel': extraits d’entretiens non publiés avec Robert Horvitz (1987) et Claude Gintz (1989)", in: L’art conceptuel, une perspective, 22 november 22nd, 1989 - february 18th 1990, exhibition catalogue, 2nd edition, Musée d’Art Moderne de la Ville de Paris, p. 85-89 et p. 255.

Sloterdijk, P. (2009). « Rules for the Human Park: A Response to Heidegger’s Letter on Humanism”, translated from Regeln für den Menschenpark. Ein Antwortschreiben zu Heideggers Brief über den Humanismus, 1999 in Nicht gerettet: Versuche nach Heidegger (Suhrkamp, 2001) pp 302-333; Translated by Mary Varney Rorty, Stanford Center for Biomedical Ethics, Stanford School of Medicine, Palo Alto, CA, USA.

Stiegler, B. (2014). Digital Studies: organologie des savoirs et technologies de la connaissance, Limoges, Fyp editions.

Larsonneur, C., Regnauld A., Cassou-Noguès P., and Touiza, S. (Editors) (2015). Le Sujet Digital, Presse du Réel, Dijon, France.
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