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Entangled, hybridized, multiple

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Abstract

Attempting to discuss some central issues in relation to the creative process in digital arts, we rely in building a metapointofview, in the context of a systemic approach, complexist, from which is possible to get visibility to the systemic structure and multidimensional of this use. Emerging poetics; An art that is held in net, collectively, involving knowledge and domain of a myriad of technics, technologies, the articulation of knowledge, references, experiences, multiple dimensions of reality, and also multiple artists.

Keywords: collective creation process; digital arts; complex adaptive systems; metapointofview.

The cybernetic thought, systemic, informational, complex, allowed us in the last decades, to explore the micro and macro dimensions of the so called reality of the world of phenomena. It allowed to build *ratiocinatrix* machines in nano scale, to understand the communication and control processes in animals and machines, to duplicate the individual, to change the structure on its genesis, simulate, understand the creative process as systemic processes, emergents, bringing up the possibility of apprehend and study organizational dynamics from bottom-up methodologies.

In a simultaneous move, broadening up exponentially faster, the telematic systems[1] allow various levels of connections, expanding the consciousness to a global level, and allowing the self to be various, multiples and overlapping, interlaced in time and space despite of geography. Being possible to be simultaneously present in various realities, accessing different levels of reality in each one of them. As Roy Ascott says in his article *The Ambiquity of Self: living in a variable reality*, the self finds "[...]physical presence in ecospace, apparitional presence in spiritual space, telepresence on the cyberspace, and vibrational presence in nanospace" (Ascott, 2008, p.25). For Ascott, in this scene, the new digital art is "[...] immaterial and moist, numinous and grounded, while the technoetic mind both inhabits the body and is distributed across time and space" (Ascott, 2008, p.25).

And so, a syncretic reality emerges from what Ascott calls a cultural coherence of intense interconnectivity, of quantic coherence as reality basis, and of spiritual coherence of our multilevel conscience. The digital art in this context is so multiple, hybrid, interlaced as the *multiple selves* (Ascott, 2008) in its multidimensional telematic kingdom.

It is in this telematic realm that blooms the collectively creation in digital arts, emerging in processes with systemical characteristics - dataflow in net structures, significant informational tissues, open to changing and transformation, organized adapted complexes. Complexes that, beyond bottom-up technologies, need a new *method* for being understood. A method, in sense of building a view, of a thinking frame, in a sense that approaches of Edgar Morin's concept of method.

This complexity method, "[...] opposes itself to the so said conceptualization 'methodological' wherein it is reduced to technical recipes. Like the Cartesian method, it must inspire itself in a central principle or paradigm" (Morin, 2003, p.37, our translation). To Morin, the difference is precisely the paradigm, not obeying a principle of order through a disorder elimination, of clarity, eliminating the obscure,

> '[...] of distinction (eliminating the adhesions, the participations and communications), of disjunction (excluding the subject, the antinomy, the complexity) [...] it is, instead, about linking what was separated by a principle of complexity' (Morin, 2003, p.37, our translation).

Approaches as of the researcher Tim Ingold, of Aberdeen University, in Scotland, in the article *Bringing Things to Life: Creative Entanglements in a World of Materials*, proposes to think and discuss in which way the connections between elements in a system - it can be itself our interaction space in society - build this same system. These connections are more than

[1] The term Telematic Sistems refers to all integrated use of telecomunication and informatic, is also refered to CIT's (Comunication and Information Technologies).

connections, to the researcher they are interwoven. According to Ingold, when he speaks of interwoven of stuff, he refers precisely and literally "[...] not a network of connections but a meshwork of interwoven lines of growth and movement" (Ingold, 2010, p.3). The proposal does not stick on the observation of the system and its dynamic process of organization, on the materiality, but on the flows.

Ingold's point of view, resumes the issue of the shape generation not only from the net connections that are a complex, but from moving mesh and growth lines, that are interwoven. Morin, in "The first method: the nature of nature, when says about genealogy and generativity of information, relates shape generation - from own system's shape - from the informational processes. Morin in "The first Method: the nature of the nature, where it says about genealogy and information generativity, relates shape generation - from own system's shape - from informational processes. Morin relates, in last instance, information and generativity. Despite being about the live organization, about the complex generative organisms, the point of view built by the thinker helps to understand the relations between information, organization and systemic morphogenesis. According Morin, information emerges at the same time a generative complex and a communicational organization emerge. When isolated and connected, that generative information can be considered as "the unlikely and stabilized configuration, with engrammatic (sign) and archival disposition, inner the generative proto unit, it is necessary the repetition or exact reproduction to the end of regeneration and re-regeneration processes" (Morin, 2003, p.394, our translation).

Inside this logic, the informational complex (complex because information assumes communication, circulation, apparatus, and so on) should be designed not in its conception, but during the process. In this process a own productive organization, a autopoietic organization on the comprehension of Maturana and Varela (2007), produces itself. Still, this organization, complex adaptive system, should be considered relating to its environment in an organizational process, tetralogic circuit that is not a vicious circle, but a circuit where irreversible transformations are worked out, genesis.

Considering the collective creative process in digital arts from this outlook, we can observe in which way each instance of the system is result of the influences dynamic net that is configured among all elements of the system, and of them and the whole with the environment. To reach the aim of the artistic works production system strongly influenciates the *superior instance,* such as the references and theoretical and technical knowledges that influenciates de *inferior instance.*

It is between the instances that the production dynamics of artistic works, allows the artist to update the organization, interfering on the inferior instance of the systemic structure. This move is parcel of the auto-organizational process. It is important to comprehend that, as elements of

the system, the evolved artists work, act, in all instances of the system. However, they work mostly on *between instances*.

On the construction of a model that provides visibility to these organizational dynamics - called Moist Model - the basic metaphor is of a moist mean - *moist media* (ASCOTT, 2003) - in which information circulates as in a data fluid and not through linear connections. The connections are multidimensional and might happen in *different reality levels* (NICOLESCU, 2002).

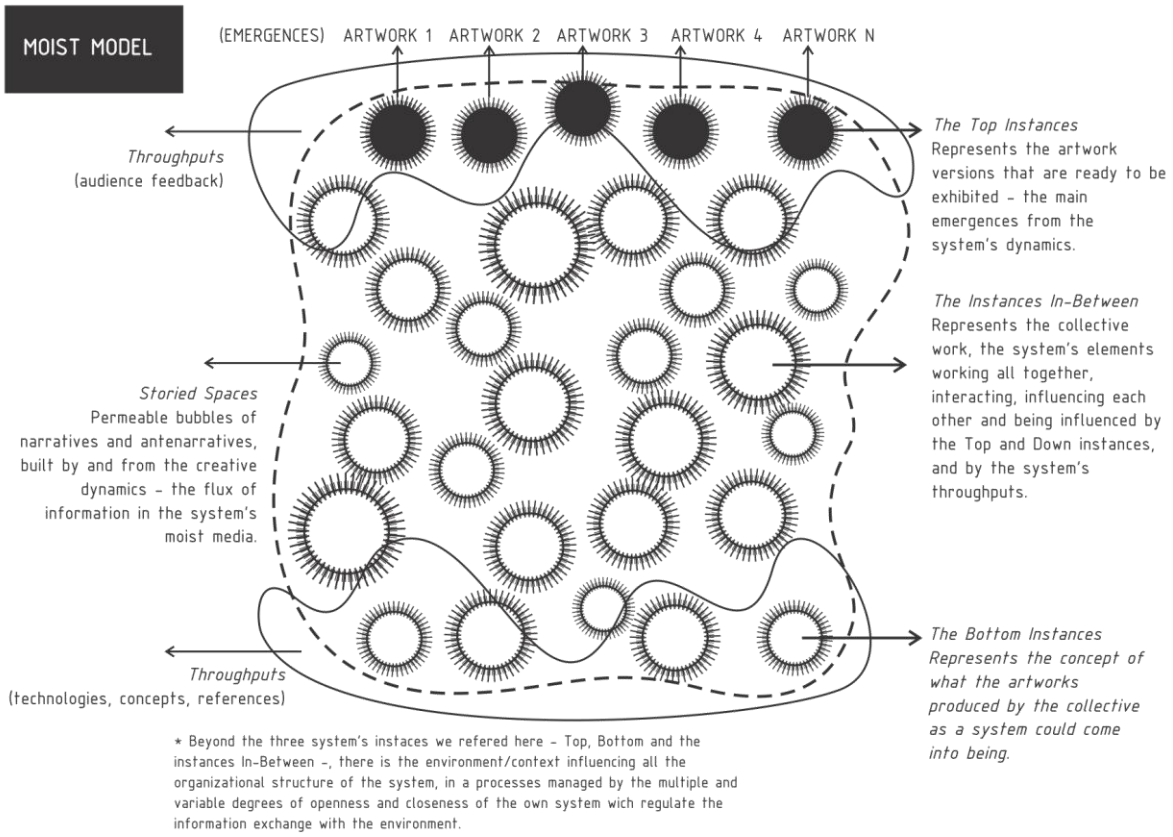

Figure 1. The Moist Model.

Despite being found on digital arts practices since the beginning, on the 80's, it has been more common to find collectively created pieces called as part of a series - 001, 002, first version, second version, and so on. A pioneer example is the series *Points of View* by Jeffrey Shaw, developed between 1983 and 1984. The three works of the series constituted a kind of signals theater (Shaw, n.d.a, n.p.) where the stage and protagonists were developed with computer

graphics and projected over a big screen in front of the audience. On the action controlled by special joysticks, any member of the audience could interactively move himself on the virtual environment projected - 360 degrees around the stage, 90 degrees up and down, going from ground to aerial view. On the first work of the series, *Point of View I: Computergraphic installation*, from 1983, the actors' representation on stage was derived from the antique Egyptian alphabet where each figure was a hieroglyphic character. As Shaw says, "this signals constellations was used to articulate a model of the world with an underlying relation of physical and conceptual relationships" (Shaw, n.d.a, n.p.).

The second work of the series, *Point of View II - Babel*, also developed on 1983; it incorporates issues related to the Malvinas War - a conflict between Argentina and United Kingdom, in 1982. As Shaw explains, the work "[...] implemented functional and iconographical structures similar to Point of View I. The Egyptian hieroglyphs were used to articulate both, a visual and psychological architecture - a hierarchical building defined to identify the essential pathology of power and its inevitable predisposition for oppression and war" (Shaw, n.d.b, n.p.).

On this second emergency of the series, the sound constituted a whole aspect of the installation. 13 spoken texts, extracted from the Military Psychology Congress, that happened in Vienna in 1983, were linked to the image through the same joystick that controlled the virtual movement of the user. Working with an audio mixer, this joystick modulated the various voices, according with different spatial positions of the user, comparing to the virtual environment. This way, each person that interacted, had the opportunity to create a personal audiovisual journey. According with Shaw, the changes on the soundtracks generating a spontaneous confrontation of spoken information, "[...] in conjunction with the visual movement around the image exposed the signifying relationships of this hieroglyphic ziggurat" (Shaw, n.d.b, n.p.).

The third work of the series, *Points of View III - A Three Dimensional Story*, explored the idea of a piece capable to stimulate the audience to participate actively on the final construction of the artistic work, inviting 16 people to make narrative contributions. These contributions were interactively linked to the visual scenography in which this audience was able to navigate through parallel histories. Larry Abel - responsible for development of software, Tat Van Vark and Charly Jungbauer - responsible to the subjects related with hardware participated to the collective development of the three works of *Point of View* series. In a reconstruction of *Points of View I*, in 1999, Torsten Ziegler was responsible for the developments related to software, and Armin Steinke to hardware.

The consideration of digital arts works, collectively built as part of a series, shows the intention to assume practice as a process. In a broader sense, the series shows how the domain of a specific technology, joined with the adoption of a unique conceptual framework, evolves in a collectively

based working process. This process is structured from an intense information exchange, which links the different organizational levels of a whole that might have complex characteristics. A contemporary example is Camille Utterback's series, *External Measures* (2003). The series started from the attemption to create interactive paintings, and evolved as the artist, working collectively, "[...] experiments with the possibilities for hinging computational systems to human movement" (Utterback, n.d., n.p.).

Another example is the work *Intimate Transactions* of the Transmute collective. The Collective, established in 1998, began to develop Intimate Transactions in 2001. There are two initial pilot-projects that set basis for the future developments related to this piece - *Liquid Gold* (2001) and *Transact* (*Flesh/Skin/Bone*) (2002). According to the art director Keith Armstrong, the collective

> '[...] decided that the core of their interactive, computational design would be inspired by energetic flows within scientifically described ecologies (for example the flows of energy that originate from the sun/photosynthesis and are subsequently exchanged via consumption and decomposition)' (Armstrong, 2006, p.16).

At the collective proposal, emerging from the concept of relational image of whole field, the collaboration and collective action turn into key elements of an *ecosophy praxis*. With this aim, there were adopted approaches capable to give audience to the opportunity of a shared experience, social interaction and discussions about actual ecologic matters.

During four years of collective works, Intimate Transactions evolved from a local installation and not based in network, for a multi-local artistic work, articulated by a server, projected for two or more participants in network. That way, according to Keith Armstrong (Armstrong, 2006, p.33), the interactivity of the audience, the ecological engagement and the collaboration, were extended to produce a complex relational experience.

Using the Moist Model as a frame for a complexity study of the collective *Transmute*, we can consider that this collective is structured as a process and that, this process, can be studied as a complex adaptive system, as it is evident the inter-relation between the members of the collective, being the system constituted by these elements in inter-relation. Even in works performed beyond the collective frontiers, performer Lisa O'Neill, and sound director Guy Webster, continue to dialogue with the artistic director Keith Armstrong, building a plot of relations that is the basis of systemic architecture, articulating itself from de conceptual basis and the exploration of technologies.

The several works produced by the collective can be read as emergences, as they constitute unpredictable results on the systemic dynamic of Transmute. As emergency, each one of the

series artistic works don't turn directly of the connections of the members of the collective, but to the glimpse with the possibility to reach new organization levels by the collective.

We may consider that the creative process of the collective Transmute is an organized and adaptive complex, as it doesn't respond passively to events, reorganizing itself according to environmental changes, in context. That is clear when the collective starts to work with the *Australasian* CRC for *Interaction Design* (ACID), as part of a research project of the *Australian Creative Industries Network* (ACIN), and reorganizes according with the changes, producing an extension of the installation *Intimate Transactions* for a multi user version in network.

For a approach of this nature on the study of the creative collective processes to be possible, in visual arts or in a more specific domain on digital arts, to be possible, is essential the involvement with the artistic practice. That involvement is the basis for the construction of the view from the complexity, for the construction of a metapointofview - it is kind of to integrate the system that is meant to be watched. The notion of system that has no totally independent object of the subject, were there is no isolated *physis* of the human understanding, of its logic, culture and society, leads the subject, "[...] not only to verify the observation, but to integrate the auto observation to the system" (Morin, 2003, p.179, our translation). The object, being it real or ideal, it's an object that depends on the subject.

As artistic director from the collective O Duplo (the double), with a visceral involvement on the development of the works of the series *Instantes de Metamorfose* - through the whole poetic route, in the realization of performances - is being possible to comprehend the aspects of totality and relational aspect, that could make this process a complex system. It is assuming the status of watcher-element of the system that might have generative characteristics, it's given on the inter relationships between their members. In that perspective, from a metapointofview, that comes the understanding of the collective creating process as a process and that process as a system.

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