

Production Processes of Mexican Digital Artists

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Abstract

My hypothesis is that the observation of processes, products and context of Mexican digital artists' activity reveals common patterns that define Mexican Digital Art as a distinct artistic area. Through a qualitative research which included semi-structured interviews applied to eight artists, I was able to gather and analyse data that confirmed my hypothesis. No other virtual or physical documents address this issue with the perspective shown in my research. The interviewed eight artists use different expressive materials and media, like sound, robotics, free software programming, laser and obsolete technologies, and internet. Notwithstanding their formal differences, they share several common aspects like interdisciplinary approach and poor funding. The robotics project, for example, uses bioremediation, water supply and decontamination technologies. All of them, with one exception, started their artistic activity with no funds and operated in precarious conditions.

Keywords

Digital Art, Creation, Process, Artists, Methods, Production.

Introduction

This paper investigates the production processes of Mexican digital artists and their work, on the understanding that commonly these processes are enveloped by a halo of mystery, that is, the processes of creation are unknown, and more often than not, it is only possible to see it through the finished work, either by the artist himself or the public. Therefore, the need to investigate these processes are essential for the development of Digital Art; on the understanding that in Mexico to date research has not been conducted on this issue.

The development of this investigation is based on a logical and inductive process (exploring and describing, then generating theoretical perspectives); that is, from the particular to the general, the data to generalizations, the typical features of qualitative

research (for example, interviewing a person, analyzing the data obtained, and drawing conclusions; afterwards another person is interviewed, the data are analyzed, results and conclusions are reviewed; in the same way more interviews are conducted to understand the object of study: i.e. the research proceeds case-by-case, data by data, up to a more general perspective). With the data collected, we have gathered the perspectives and views of the participants (priorities, experiences, and meanings) as well as the analysis of interactions between individuals, groups, and communities. Thus, the type of research that is chosen focuses on understanding and deepening phenomena, exploring them from the perspective of participants in a natural environment and in relation to the context, which is selected when seeking to understand the perspectives of participants on the phenomena that surround us, deepen their experiences, perspectives, opinions and meanings, i.e. how participants perceive their reality subjectively.

What is Digital Art

Digital Art (DA) has become a discipline that brings together all artistic demonstrations carried out with the computer. Works of art can be made with digital media and can be described as an electronic series of ones and zeros. A work of this type is also produced by artists who use computer media prior to the materialization of the work or its display steps. DA combines Art, Science, and Technology, but not everything produced with these resources is considered DA, we can say that the border is unclear, but it is because of this that the DA is a hotbed of new ideas, and, therefore, research around the production process is indispensable.

Stages of Idea Production Process

Here it is worth considering whether steps for forming a creative product exist and whether they are applicable

to any individual who has produced any innovative and original object. Reality suggests that everyone has his or her own concept of development of this nature. However, even though everyone has their way of working, some threads could constitute what we call phases for the realization of a creative product.

These stages are not linear, in other words, the order cannot be taken literally, actual creative processes are interwoven, they can be in the assessment stage and during have intuitions, or even during incubation. Or, as has been discovered in this investigation by Mexican digital artists: one project may trigger other projects, so we are left with the impression that there are no conclusions but a constant and continuous flow of work; it all depends on the subject, who may have incubation periods that last for years.

Either way, dividing the creative process into five stages, although oversimplified, offers a valid and simple way to organize the complexity of such a process, the following steps are the conjunction of the vision of Mihaly Csikszentmihalyi, Manuela Romo, and the Mexican Mauro Rodríguez Estrada¹ on the creative process, which have been brought together because they are considered complementary.

I. Preparation. Conscience or sub-conscience, it is a set of problem areas that generate curiosity. There is a questioning, something perceived as a problem, a result of intellectual inquisitiveness, curiosity, habits of reflection, to perceive beyond appearance.

II. Incubation / Intuition. Ideas bubble beneath the conscious awareness of the individual, and unexpected combinations emerge, therefore the logical conscious side does not operate at this stage. Intuition is when the puzzle pieces fit together. Incubation and illumination are closely interrelated, such that they are considered parts of the same process. Incubation is a period of apparent calm, but ideas are brewing inside the mind.

III. Evaluation. When we put weight on whether intuition is valuable and if it's worth paying attention to. Emotionally, this is the hardest part of the process, when the creator feels more uncertain and insecure. It is when we seek the opinion of others.

IV. Elaboration. It is the longest phase and involves the hardest work. Execution occurs in this stage.

V. Communication. The essence of creativity is the element of novelty and value; both concepts contribute

to original objects. However, the result of creativity demands to be seen and recognized by others and its creators for validation. This is understandable, as we need a “judge” who opines whether the result is valuable or not; with difficulty, the creator of something can be the same person who assesses an idea or object.

Methodology

In terms of production methods used in MDA, we find different methods (exclusively in the elaboration phase) to those employed in traditional art, since they have different conditions that make other processes feasible in this area. Such conditions are: the use of electronic devices, the use of various energy sources, and the use of the computer in the process or the work itself, among others, which requires some advanced planning in the development of artistic work. It would be very difficult to improvise MDA due to the elements involved in creating a piece, i.e. MDA works investigated in this text have complex work processes. Therefore, the work process requires timely and specific steps that more often than not demand collective work coordinated between professionals from various disciplines.

Development in the knowledge of research methodology is broad, in the case of artistic production, the artists themselves have documented their own processes², or they have undertaken and research them, resulting in proposals useful for other artists. For example, in the case of Bruno Munari and his projective method, which consists of a series of necessary operations, sorted logically according to experience, in order to achieve maximum results with minimum effort, these stages are: Problem, Problem definition, Elements of the problem, Data collection, Data analysis, Creativity, Technological materials, Experimentation, Models, Verification, Construction drawings, Solution. It is worth mentioning that the above methodology is valid for design in general, not just for DA.

Mexican Digital Artists

The “stages of idea production” analysis herein is based on two Mexican digital artists (note, this article is part of a broader research project, which was conducted on eight Mexican digital artists), whose creative processes and idea triggers were analyzed later to make Concept Maps of these processes, in order to establish similarities in generating MDA artist ideas, and thus assist in the

¹ Rodríguez, M. (1985). *Manual de Creatividad. Los procesos psíquicos y el desarrollo* (1a. Ed.). Ciudad de México: Editorial Trillas, p.p. 39-47.

² In notebooks, diaries, manifestos, computer files, etc.

creation processes of new generations of digital artists.

Arcángel Constantini

Creative process

I. Preparation. General characteristics: the artist conducts an (occasional) registration of ideas; these are, as he affirms-, of various kinds, such as art projects but also business ideas, and social and political issues, among others. Subsequently, it ensures the realization of such ideas from the whole.

Problems that generate curiosity: there are many topics that interest Arcángel Constantini, such as the parallels between the media and production; the historical parallels of the first mass production, such as photo, film and graphics processes, science fiction; the experimental exploration of the network and computers; computer *Glitches* and computer materiality; the link between earlier and later stages in analog and digital; the human side of technology, Glitches-for example, the artist says: "...are mistakes of the machine that are generated randomly or intentionally; to err is human, if the machines make errors that humanizes them"³; aesthetic, formal, non-discursive review processes on specific phenomena; the concrete dreamlike digital (theory of the artist); personal perceptions of space and its relationship with the resilience of the people; the lucid and experimental, and chance and chaotic processes.

II. Incubation / Intuition. Resources for generating ideas. The artist refers to working in a lucid dream, or what is commonly known as "daydreaming". Participation in workshops on perception of the environment through dream, linking digital spaces of concrete representations of reality in the wake of the dream:

"Making you aware that the space you are experiencing is of your own construction and may be moldable, modified..."⁴ it is also considered an effective way to generate ideas. The practice of meditation as a resource (some of his works are inspired by meditation). The emergence of ideas from a whole: consumption of, for example, science fiction books, such as Philip K. Dick, Bradbury, Asimov, Stanislaw Lem, and consumer society in general.

III. Evaluation. The artist practices analysis; looking for the why, the how, the reasons situations

are developing; it delves into a reflection that leads to understanding and knowledge of the problem (artistic practice as a habit). In general, he describes his method as visceral. That, in terms of the theory of creativity, it operates through intuitions, artists like Arcángel Constantini intuit the value of their ideas in charges of experience that result in intuition, i.e., it is not free or magical, but due to years of experience of the artist, which decant into the confidence of his intuitions.

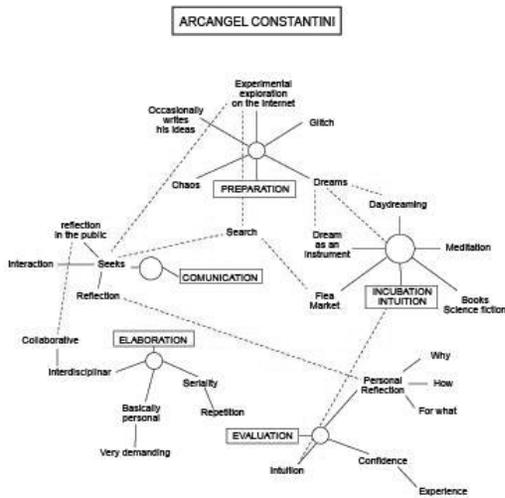
IV. Elaboration. Due to the technological nature of his works, his work method in the implementation and construction stages are the same, in most cases it involves interdisciplinary collaboration with other professionals: engineers, manufacturers, and so on. When expressly asked about collaborating with designers, (as was the case of Alejandro Magallanes in a facility for *Bacteria*) he notes that he does on occasion, but not very often because he is considered a complicated and demanding artist⁵. The development also rests on the following conceptual axes: The theoretical *loop* (in sound it is a repeat of a constant pattern, the same is true for aesthetics); the continuous *loop* (the idea remains the same, the same idea is repeated, but the form of each repetition changes); seriality, applied like a practice within the production process and multiplicity. Everything designed to obtain a response from the public.

V. Communication. Arcángel Constantini's processes are aimed at finding a reaction in the public and/or interaction with the execution of some action in the piece (such as works on the internet), such as reflection on urban, social, and cultural aspects through computers, photography, animation, video, building from pixels of digital graphic exposed in dynamic visual and sound works, installations, advertising, audiovisual performances, hacking physical computing hardware, sound art and Net Art, among others.

³ Interview with Archangel Constantini by Cynthia Villagómez at the Fonoteca Nacional, Coyoacán, Mexico City. October 1, 2011. Video Interview Length 00:21:43.

⁴ Ibid.

⁵ Ibid.



Model of Artistic Production Process. Arcángel Constantini.

In conclusion, after analysis of the work of Mexican digital artist Arcángel Constantini, who after almost two decades of continuous work has been established within the Mexican art world as one of the most known and prolific artists of his generation. Lover of technology, Archangel Constantini, to date, has found in it the resources necessary for the expression of aspects which he considers essential to record; with the use of repetition and constant reiteration, he creates continuous sequences of images and sounds very similar to those experienced in the context of the major cities, where the individual does not escape their daily lives, which is analogous to the continuous *loops* of the artist, who does not escape environmental concerns, excessive consumerism translated into mountains of garbage in the flea markets. The artist's obsession for re-use is evident in his work, by classifying, not resigning himself to the obsolescence of the objects by trying to revive them through cardio-respiratory massage with despair, but with a dramatic view of the subject, nostalgic and lucid, yes, without doubt.

Thus, we have the study of the work and the artist's creative production process, which sheds light on procedural ways of imagination and ideas, so the context that has surrounded the artist since childhood, such as their aesthetic and conceptual preferences are crucial to the realization of the work itself, a reflection and

manifestation of his time.

Regarding the process of creating Arcángel Constantini, we find that artistic practice is a habit. The preparation of the problems to be solved belongs to a series of work that is leading the artist to one or other development, but may also arise in works with very few links with his previous work. Case in point is Nanodrizas, where his interest in space and science fiction is explored. However, that project essentially includes many aspects not covered before by the artist or by the MDA, such as Bioremediation.

Leslie García

Creative process

I. Preparation. Among the artist's interests we include physics and mathematics, anthropology, philosophy, biology, and language. She indicates having many friends who are writers, which she considers a personal "frustration," so her pieces have an implicit literary aspect.

Prior to performing digital work, Leslie García used painting as a means of expression. The topics dealt with in her paintings were terrestrial maps or people on the move; she traced routes over time, so her paintings are strongly related to what she currently does in her digital work, especially about observing patterns.

What she discovered when in Mexico City, and making a review of her work in "Dreamaddictive" was her interest in consciousness and what she calls *the construction of the alchemist in the arts*, which she refers to as -according to comments- the ability of the human mind to transform reality from acquired knowledge, which relates to her personal case and her love for learning about biology, mathematics, or acupuncture, has extended her ability to perceive the environment overall, holistically, that is, with a new perspective, where the artist points out that if the individual is able to be more acute in observing their interior, then they will also apply this to their external reality⁶.

II. Incubation / Intuition. The artist believes that any work derived from personal searches, states of strong confrontation - she comments- her works are a way to test hypotheses about an issue that is presented in the way, Leslie García is perceived as a person who problematizes everything, even including for this reason she is constantly in therapy (particularly Gestalt), plus combining these therapies with acupuncture treatments.

⁶ Interview with Leslie García by Cynthia Villagómez (video conference), January 15, 2013. Duration 01:09:41..

So, the artist considers that this way of being and living translates into her work: firstly, with the use of generators, with effort, with programs that emulate and emit processes, which simulate something alive through something technological⁷.

So again, we found in Leslie García a form of work detected in other digital artists: the processes of continuous work, a central line of research from which small projects or “appendices” are derived or “come about” from that center line or lines.

When expressly asked whether there are artists who work with technology who she considers interesting or as a form of inspiration, she answered Nam June Paik (1932-2006, Korea) and her work Fluxus as an indispensable piece of reference⁸. In this sense, it refers to the publication of the influential community of video makers of the early seventies called *Radical Software*⁹, in which Paik collaborated. In the first issue, Paik paraphrased Hegel:

“What is more educational is more aesthetic, and what is most aesthetic is most educational.” For the artists who collaborated in this publication, *Radical Software* was a platform for the exploration of alternatives to the dominant media structure; it constituted a form of social activism, rather than an art magazine. The motivation of the publication, according to David Ross, was

“... technology has probably taken us to the brink of global destruction and has likely enabled the alignment between power and money that kept us on the verge of destruction, but the technology is not it is our enemy. In fact, if developed and managed humanely, communication technologies have the power to release something revolutionary ...”¹⁰. One of the intentions of digital art and art that incorporates the use of technology is to humanize technology through art, which is also

⁷ Ibid.

⁸ Ibid.

⁹ Other artists who collaborated in *Radical Software* were: Douglas Davis, Paul Ryan, Frank Gillette, Beryl Korot, Charles Bensingier, Ira Schneider, Ann Tyng, R. Buckminster Fuller, Gregory Bateson, Gene Youngblood, Parry Teasdale, Ant Farm, among others. Full numbers are on the internet, and were scanned from the complete collection of Ira Schneider (690 pages) as an initiative of David Gigliotti with the support of the Daniel Langlois Foundation. *Radical Software*. <http://www.radicalsoftware.org/e/index.html>. Accessed: January 24, 2013.

¹⁰ *Radical Software*. <http://www.radicalsoftware.org/e/ross.html>. Accessed: January 24, 2013. Article *Radical Software Redux*, David A. Ross.

addressed above.

Other characters in the world of art that seem interesting are the musicians, such as the electronic music pioneer Raymond Scott who developed his own synthesizer, or the French composer Pierre Schaeffer¹¹. In paintings, Leslie García sees a basic reference in Chagall, and among the current artists of her field of digital art she recognizes the work of artists such as Brazilian Guto Nóbrega¹². The artist believes that all ideas have already been thought of and reflected on from different angles, though her work is in re-contextualizing these ideas in contemporary reality¹³.

III. Evaluation. The artist mentions that the assessment of her work is done through what is called an effective probe. Also, she refers to her truncated education as a designer, where she indicates her liking for the idea of creating objects of desire in art, as is done in design. She points out that at the time an idea comes to her, she begins to sketch. Furthermore, she talks about her idea with members of her immediate circle, and she seeks and reads literature on the subject. The way she perceives whether the subject has any real resonance, she says, is when you start having more ideas and you realize a need to discuss the issue. It is at that moment when you start to consider the work relevant on that aspect. In her case, she explains that her ideas are of two types, she feels an affinity towards them or she considers them unworkable¹⁴.

Leslie García is always questioning *what ‘s next, why, what resonates*. Guto Nóbrega has said and applies it in practice: “You have to ask yourself whether the resonance of what you’re doing is stronger than the resonance of silence ...”¹⁵. If the answer is yes, then make the project happen.

¹¹ French composer (1910-1995), composer, writer, broadcaster, engineer, musicologist and innovator in acoustic communication made art works into music and literature after World War II, as well as anti-nuclear activism and cultural criticism, which garnered widespread recognition. All Music. <http://www.allmusic.com/artist/pierre-schaeffer-mn0000679092>. Accessed: January 24, 2012.

¹² Guto Nóbrega holds a Ph.D. in philosophy from the University of Plymouth, and an artist with developments focused on interactivity, telematics, and superorganism theory. Guto Nóbrega. <http://cargocollective.com/gutonobrega/#Sobre-mim-About-me>. Accessed: January 24, 2012.

¹³ Interview with Leslie García. *Op. Cit.*

¹⁴ Ibid.

¹⁵ Interview with Leslie García. *Op. Cit.*

IV. Elaboration. The artist develops solo pieces alone when it is the product of very personal searches; but she says she likes teamwork a lot, as she performs within the *Collectivo Astrovandalistas*, which she founded in Tijuana in 2010, initially she was its only member.

Her collective work is almost always literary; it deals with a literary presence. In this process, all ideas are analyzed; discussed; proposals arise; there is a search of intentions and interests, there is always a discussion on what is appropriate work. The artist believes that collective work is always looking for a very specific function of social impact, i.e. that the work “detonate possibilities,” she says, in such a way that it has a social echo (such as the work *Arma telemática* operated from the social net-work Twitter to a sound metal tower located outside the Campo Marte in Mexico City, the Mexican army headquarters where, in 1968, many people disappeared). In *Astrovandalistas*, Leslie García says that collaboration works in different ways: sometimes she does programming work, sometimes hardware; another friend of hers, called Rodrigo Frenk (also a young artist), is the strong arm of the group; hence the participation of other professionals diversifies according to the project from designers, animators, communications specialists, among others, who identify with the group’s position.

Within these forms of the employment relationship, in the preparation stage of the creation process, Leslie García affirms that some relationships are generated in experimental spaces. In the workshops, she was a tutor in the event *Interactivos*¹⁶ within a MediaLab Prado program. The artist mentions having tutored twice in 2008 in Mexico City, once with Zach Lieberman (director of *Open frameworks*, artist, and developer) and another by the Colombian artist Alejandro Tamayo (who works in biology labs). Leslie García said that although she finds working with these two artists strange -because she barely hovered for 25 years- realized that it was her collaboration in spaces such as *Eyebeam*¹⁷ in New York, her communication with

¹⁶ A research and production platform for creative and educational use of technology, whose main goal is to expand the use of electronics and software as art tools. Interactive. <http://interactivos.marginalialab.com/en/>. Accessed: January 23, 2013.

¹⁷ Center for Art and Technology located in New York, dedicated to exposing different audiences to new technologies and *media art* at the same time stable and shows the new media as a significant genre of cultural production. *Eyebeam*. <http://www.eyebam.org/>. Accessed: Janu-

Miller Puckette (developer of *Pure Data*) and contact with the *Computer Science* thinking of the United States (due to its proximity to Tijuana), which led to her invitation as a tutor with such artists¹⁸.

The artist considers these parts of the manufacturing processes, under the mentoring model, absorbing, because as a tutor who determines and defines the work process of a group of people, which constitutes an experimental space *per se*. Leslie García seems to enjoy talking with other artists and individuals interested in production processes, mentioning asking them about the way they work (if they work without interruption or take breaks, for example). She is also interested in knowing the ideal moods for creativity, which she considers essential to produce better, that is, if you are in a good mood, you are more productive: you understand faster, you are more creative, she notes. In these workshops where she has participated, she says that she talks a lot with students and tutors about forms of personal and collective creation, which is essential to understand that the duality of “being good and being evil” is inherent in every human, which drives us to be humbler, not think that we always have excellent ideas, and learn to not cling to them¹⁹.

In relation to collaborative work, García poured imperative ideas about involving cutting-edge knowledge, adapted to our present reality. She supports the concept of the whole man, what is called the *Cosmopolitical tactic*²⁰. She describes it as the way the entire man can be responsible for all areas of knowledge of the world, i.e., in small fractions, he says, people can contribute to solving problems in their community, the more aware they are of the circumstances, the solutions will be more comprehensive and environmentally friendly. The artist

ary 25, 2013.

¹⁸ Interview with Leslie García. Op. Cit.

¹⁹ Ibid.

²⁰ *Cosmopolitical tactic*: “Specialization confines problems as much as it defines them.

Despite how hard the task may be, we all need to become biologists, activists, artists, and theorists. It is possible and imperative.” University of California, Davis. <http://sts.ucdavis.edu/summerworkshop/Workshop%202009%20Readings/Dumit%202008%20Foreword%20Biological%20feedback.pdf>. Accessed: January 23, 2013. Text *Tactical biopolitics, Art, Activism, and Technoscience*. Beatriz da Costa and Kavita Philip. The MIT Press, Cambridge, Massachusetts. London, England, 2008.

expresses an interest in troubleshooting from any area: "... working for me is this need for harmonization and the role of the artist is paramount as a sort of satellite, monitor [...] trying to capture [gesture of "what is"] and bring it down so that it becomes something tangible"²¹.

In relation to art schools *versus* self-teaching, and that maturity that building your own mind provides, her working method and the use of the registry as a resource, tells us that intuition is what approaches to solutions, and for her, it is in this aspect where the importance of people who like her are self-taught radiates, because their activity is based on well-documented searches, making a record of exploration. Therefore, in her case and the other self-taught artists, there is an obsession to record everything going on: thoughts, mistakes, successes, all mark the path to find a solution to a problem posed; the artist considers this process a work methodology²².

Another way to work on the development of pieces, from concept and from the beginning of Dream Addictive Labs, has been building relationships with the outside or with institutions outside of Mexico, such as *Eyebeam*, in addition to the close relationship she has with Medialab-Prado, Madrid (as mentors), to participate in working groups in Colombia, with *Librepensante*²³, *Cartografias Sonora*²⁴. She points out that the sound aspect is present in most of her pieces. Hence she works with artists who favor this aspect. For this reason, Leslie's contacts were external; however, today there are many artists in Mexico that use sound as an essential part of their work (per information provided by Gilberto Esparza for this research).

On her current processes, those in which she is working right now, says that she is exploring the idea of a mobile laboratory, one that not only allows not her the space to produce, but enable work anywhere, allowing her to arrive adapt for work. She considers that this adaptation will also determine the size and complexity of her pieces. For Leslie, it is important that the piece reflects the conditions under which it occurred, because it is part of the circumstances of the artist; and she insists much they should reflect the limitations and conditions of austerity, because these works produce empathy with other artists in similar circumstances, so you can improve the processes themselves, through working

together. She cites the case of working with Brazilian artist Thiago Hersan, who, collaborated with Leslie García in *Cráter invertido*²⁵ (an autonomous group that has a space) for fifteen days in Mexico City in 2013 without a specific goal in mind, with experimentation as the way: an exercise in flexibility, mentions the artist²⁶.

V. Communication. Leslie García indicates that the reaction of people when reaching a piece varies greatly, some people do not seem to understand anything, while others reflect on it. What the artist seeks through her works is the reflection, which is why she builds her pieces as archetypes (in the psychological sense of the term, namely, as a representation that is considered a model of any manifestation of reality and/or images or diagrams with symbolic value as part of the collective unconscious"), i.e., the piece as an empty container which is filled with expectations, wishes, and concerns of the beholder or who interacts with it, depending on the case comments the artist²⁷.

In the aspect of communication, García believes to have inherited issues of her studies in design, she mentions aspects of function and form, and how in her pieces' interactivity must be dictated by the shape of the piece, so that the viewer intuits how to relate to it. For example, in her work *Deep Thought*, the artist invites people with instructions such as "take a deep breath," "allow chance to happen," which she uses to sensitize the person and start a relationship with the piece²⁸.

The artist considers this process interesting while planting concerns in the viewer about her pieces. On occasion, she has left the place where the piece is on display and listens from behind to the series of questions about the work from the public: "If that happens with two people out of a thousand" for her it is perfect. It means that there is a relationship with the piece. She has even watched very entertaining children *playing* with the works, like a computer game; then muses: "... if you can capture the child's attention and manage to generate a question, a challenge, a need and a response it means that they have a pretty clear communication process: return".

²¹ Interview with Leslie García. *Op. Cit.*

²² *Ibid.*

²³ *Librepensante*. <http://librepensante.org/>. Accessed: January 25, 2013.

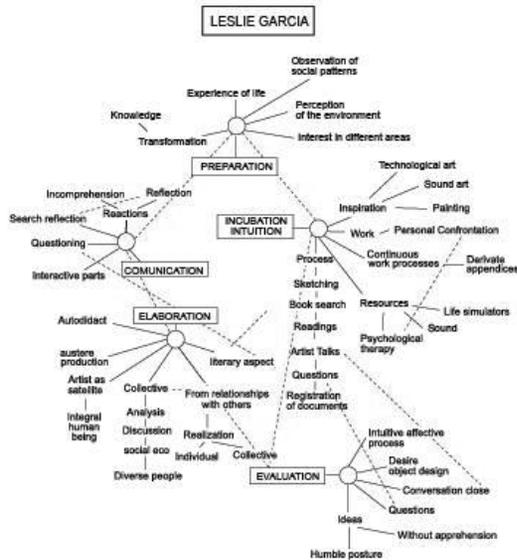
²⁴ *Cartografía sonora*. <http://cartografiasonora.blogspot.mx/>. Accessed: January 25, 2013.

²⁵ *Cráter invertido* <http://craterinvertido.org/>. Consultation: January 25, 2013.

²⁶ Interview with Leslie García. *Op. Cit.*

²⁷ Interview with Leslie García. *Op. Cit.*

²⁸ *Ibid.*



Model of Process of Artistic Production. Leslie Garcia.

Conclusions

Those who describe the broad spectrum on which Mexican digital art (MDA) rests, while at the same time transforming the field, also indicate the path that has been followed and the issues addressed. Artists delimit and improve the definition of the medium, which characterizes and simultaneously makes them unique. Thus, we have the genealogy of digital art in contemporary Mexican art, reflecting the need and curiosity of some artists who dare to involve emerging technologies in their artistic work. It was not until the artists created their own channels to reach the public that they began to recognize that the desire to experience went beyond what institutions accepted as art.

Currently, in Mexico, there are exhibition, creation and knowledge generation spaces about art with the use of technology, although they are inadequate and are overwhelmed by the gaps generated over decades of omission of digital art in public spaces and institutions, the future is promising for efforts invested by all those involved in disseminating knowledge of the Mexican digital art.

As it relates specifically to the production processes of Mexican digital artists and their work, we find that MDA is currently performed by a group of artists, mostly devoted entirely to this field. Although this factor is not

decisive in the way they produce, nor the fact that they are women or men, a common denominator can be set in most participants of the rubrics discussed: preparation, incubation, intuition or insight, evaluation, elaboration, and communication.

In the first phase, preparation, (or prior training of the creator whose effect on the process is relevant), including the context and a rich cultural environment in which various stimuli have nourished the mental corpus, we observe an innate curiosity in the artists, interest in different areas of human knowledge, and not only regarding digital art. Apparently, the artists seem not to be overly attentive to their field, and more interested in the various scientific and technological discoveries. The opposite is true: they have become researchers find value valuable and ultimately satisfies their curiosity.

In the group of artists studied, links or similarities are apparent in all phases of the creation process, in the case of preparation, common interests are music, reading various texts, intended to humanize technology, to find historical parallels, in the perception of art as a process of knowledge that enables questioning, but also social reflection. One of the most significant findings of this investigation is perhaps the detection of artistic work on “continuous work processes,” that branch into various sub-projects that may accrue in appendices or construction. Most artists have shown a record of their ideas, which they retain and make use of during the process of creation.

It is noteworthy that the artists make fascinating reflections on digital art and their pieces, which corroborates the intellectual vein that artists of this study possess, and therefore states that there can be no artistic creation without rational reflection and/or search for it through the work.

As for intuition and insight, we found that good ideas do not come by chance, but are the product of time and the training of the artist, a process which in all cases has taken several years. In this sense, the quality of ideas is not random, it owes its appearance to training, the preparation phase, and the context of the artist. Considering the above, the use of facilitating resources for the generation of ideas is also mentioned by MDA artists: dreams, meditation, and inducing a high level of concentration through various means.

It has been said that the artists studied find inspiration in science, technology, philosophy, science fiction, obsolete technology, politics, aspects of social issues

such as injustice, in art itself, -generally, although not exclusively- and resort to fantasy or fiction, in the same way they contemplate their national, technological, cultural, and social reality. Some of their ideas come quickly as occurrences, but others take years to emerge.

We observe that they make use of the principles already studied in the theory of creativity intuitively, such as combination, association, and returning elements unrelated to the subject to promote fundamental approaches around them, producing “forced” associations that further them from trite or common solutions.

About the evaluation of the generated ideas, the fascination with the process of acquiring knowledge (produced and acquired) *itself* is common in all cases. A general feature in the MDA pieces is that the results are all indeterminate cases, not predictable. The research processes and knowledge gathering that artists initiate can last for months or years and may not necessarily result in an artistic work. When these processes result in a piece, it is not the end of the road, but possibly the beginning of others. So, the work is concatenated and assessment of an idea: if it is feasible to be performed or not is complex, given that the initial idea is behind us in time or simply because the artist knows what should be produced.

The evaluation of an idea the artists of this research project relates to carrying it out by intuition, but always respond to personal or group discussions. In other cases, the feasibility of an idea to be conducted or not depends on technical and technological limitations, as well as the lack of financial resources for production.

As for the elaboration, decisions about the refining or adaptation of works (in technical respects in relation to the site, etc.) are more often than not carried out by groups of collaborators (not and ideation, which is performed by the artist in the case studies). So, the idea of performing a solo work, most of the time, disappears in this scheme of the development of ideas within interdisciplinary groups.

In this sense, it is important to mention that the lack of exhibition spaces and support, coupled with the ignorance of the scope of MDA, makes the growth in the number of artists difficult. However, interest is growing. In a conversation held with Christa Sommerer in the *Insects Solar* workshop at the Laboratorio Arte Alameda in 2013, she asked the researcher responsible for this project if it considered that in Mexico there was a *boom* or boom in digital art, to that is answered yes, however, this only applied to some cities (such as Mexico City, Guadalajara, Monterrey, Puebla, San Luis Potosí, Tijuana, and León,

among others that have centers and / or related digital art events). The predominance of traditional arts remains in the country in artistic practice as well as in cultural, educational, and exhibition spaces, such as painting, sculpture, and printmaking. Even when art has greater reach because of technology, this is not the case with digital art.

The digital artists analyzed emphasize the physically and mentally intense work involved in preparing the pieces, which is why the artists of this area have a high capacity for interdisciplinary work in teams with professionals from various areas of knowledge, where the work is open or undetermined until the end. The duration of these is variable; the artists say that work can take hours, weeks, months or even several years.

In the communicational aspect of the results of research processes and knowledge acquisition, we observe that there is a concern about the public reaction, i.e., the way the viewer participates in the work is part of the aspects that the artist considers to be performed; even where the work is left *open*, whose intrinsic possibilities the public gives the “final form” to the work, or in some cases that the piece offers a variety of “final”. Through the piece the artist seeks: sometimes a reaction, at times the interaction, but usually unexpected reactions.

Thus, we conclude that this investigation in the preceding pages has generated knowledge about Mexican contemporary digital artists and their production processes, since to date there are no virtual or physical documents that address this issue from this perspective. We have studied the processes of reflection and conceptualization around the artwork, from the point of view of the embodiment as well as the intellectual process carried out by the artist. We reflect on the new production processes involved in Mexican Digital Art, their sources of inspiration and how they have transformed artistic practice in the field. Through the analysis of production processes of each of the artists of this project we have formed a model for the interdisciplinary methodological approach, derived from the study and analysis of the production processes of Mexican digital artists, which is included in a larger study, i.e., greater and deeper investigation of the subject matter from which this article was derived.

Therefore, in these pages, the reader has found part of the explanation and reasons for the once considered mysterious process of artistic creation, and elucidated the ties of an important and fundamental part of the scenario of Mexican Digital Art of our times.

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