



JITA: Não preencher

FOR A COMPLETE PRESERVATION OF THE NEW MEDIA ART: NOTES ON ART TECHNOLOGY¹

**POR UMA PRESERVAÇÃO INTEGRAL DA OBRA DE ARTE DIGITAL:
ANOTAÇÕES SOBRE ARTE TECNOLÓGICA**

**PARA UNA CONSERVACIÓN COMPLETA DE LA OBRA DE ARTE DIGITAL:
NOTAS SOBRE EL ARTE TECNOLÓGICO**

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ABSTRACT

This work discuss on digital art and its preservation. Being a kind of art recognized as born digital, it is among the field of contemporary art and the wide field of digital technology. At the same time, it is part of a society in which the technology has established itself worldwide providing means to criticize the idea of "digital" as advancement or progress. Based on those assumptions, we have tried to think about the complexity of that artistic expression which is manifested in its preservation. In this article, which features notes derived from research on art and its preservation, we seek to think on the relationship between art and data and how the preservation effort beyond the data (informational/computational) of technological art work reveals its statute from its industrial and artistic composition.

KEYWORDS: Digital arts; Digital preservation; Complete preservation; Post-digital; Art and technology.

RESUMO

Este trabalho reflete sobre a arte digital e a sua preservação. Como uma arte reconhecida como nativa digital (*born digital*), ela se encontra entre o campo da arte contemporânea e o campo amplo da tecnologia digital. Ao mesmo tempo, ela se insere em uma sociedade na qual essa tecnologia se estabeleceu em todo o mundo possibilitando críticas à ideia do "digital" como avanço ou progresso. A partir desses pressupostos, procuramos pensar a complexidade dessa expressão artística manifesta na sua preservação. Neste artigo, que apresenta anotações derivadas de pesquisas sobre arte e a sua preservação, buscamos refletir sobre a relação entre arte e dados e como o esforço de preservação além dos dados (informacionais/computacionais) da obra de arte tecnológica revela o seu estatuto a partir de sua composição industrial e artística.

PALAVRAS-CHAVE: Artes digitais. Preservação digital. Preservação integral. Pós-digital. Arte e tecnologia.

RESUMEN

En este trabajo se refleja en el arte digital y su preservación. Como un arte reconocido como nativo digital (*born digital*), es entre el campo del arte contemporáneo y el amplio campo de la tecnología digital. Al mismo tiempo, es parte de una sociedad en la que esa tecnología se ha establecido en todo el mundo permitiendo una crítica a la idea de "digital" como avance o progreso. Partiendo de esas premisas, tratamos de pensar en la complejidad de esa expresión artística que se manifiesta en su preservación. En el presente artículo, que cuenta con notas derivadas de la investigación sobre el arte y su preservación, buscamos reflexionar sobre la relación entre el arte y los datos y cómo el esfuerzo de preservación más allá de los datos (de información/computacional) de la obra de arte tecnológica revela su estado de su composición industrial y artística.

PALABRAS CLAVE: Artes digitales; Conservación digital; Conservación completa; Posdigital; Arte y tecnología.

1 INTRODUCTION

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Digital technology has been influencing various fields of human life for quite some time. It hasn't been different in the artistic field. Due to the sustained relationship between "digital technology" and the idea of "headway" or "progress", it has been common to see over the years - after its advent - the addition of the adjective "digital" to several nouns. Therefore, games have become digital games, cinema has become digital cinema, culture has become digital culture, also art has received the adjective digital, especially in the Brazilian case.

Digital art - also known as art of new media (new media art), computational and technological art - has a recent formation trajectory and has made a very interesting field in Brazil. Digital art is not even a subarea in the Knowledge Areas Tables of the National Council for Scientific and Technological Development (CNPq) or Higher Education Personnel Improvement Coordination (CAPES)³. Still on the Brazilian case, the option for the term "digital art" can be a political choice (for the sake of public policies for the field), especially when it is remembered that professionals have pleaded with the Brazilian Ministry of Culture to create a Sector Board of Digital Art (GASPARETTO, 2014).

In addition to the general economic and political interest around digital technologies, replicated in the field of art, there is a growing interest of researchers for the productive processes (creation and exhibition) of digital art. Researchers and institutions also have started to focus on the process of archiving and conservation worldwide (GOBIRA, MUCELLI, PROTA, 2014).

As what we are dealing here as "technological art" or "digital art" is a broad field of possibilities, we could relate it to the idea of a "digital born" art. This relationship is not deterministic, considering the recent debate about the settings for a post-digital context (SANTAELLA, 2016; GOBIRA; MUCELLI, 2016). Thus, it is considered that we are living a time when "digital" can not be accepted as a synonym for "headway" or "progress", but a technical feature that a particular service or product carries along.

Besides, post-digital "in its simplest sense describes the messy state of media, arts and design after their digitisation (or at least the digitisation of crucial aspects of the channels through which they are communicated)." (CRAMER, 2014) Then, post-digital is a context in which various media and technologies available can live and be chosen/worked/related. For this reason, it no longer would make sense the pursuit of the "new" media in the artistic field considering the use of digital as a doer of disruptive "actions".

The post-digital is characterized by the mistrust in this technology as a "rescuer" of human history, memory and culture. That critical dimension when thinking of the post-digital, rather than a need to simply embrace a new concept, allows different readings of

³ In CAPES (<http://www.capes.gov.br/avaliacao/instrumentos-de-apoio/tabela-de-areas-do-conhecimento-avaliacao>) and in CNPq (www.cnpq.br/documents/10157/186158/TabeladeAreasdoConhecimento.pdf) the nearest sub-area within the area of "art" is: "Video Art" (code 8.03.09.00-3).

some events in society, as well as makes possible to open the way for epistemologies that were less welcome or were questionable: as the ontological reflections of thinkers as Peter Sloterdijk (2012), or the debate on the anthropocene (PARIKKA, 2016) under the light of current technologies.

Considering that the work of digital art is not just digital; that it is a mixture of industrial hardware and software and/or exclusively created for them; which is not easily defined and named; we intend to reflect on the following pages about the relationship between art and data and how some efforts to preserve more than data (informational/computational) of technological art work reveals its constitution as an industrial and artistic composition.

2 FROM VIDEO ARTS TO DATA?

In a text on art and time, Boris Groys (2010, p.125) shows that there is a transformation in the art world that allowed the following developments: we expose as works of art the "records" of art - that are media and information at the same time. This new practice is established with video arts in which it was possible to bring to the exhibition space videos of performances, videos about production processes of the artists, videos about the artist's life, among other experiences. For Groys, these examples show an exhibition of "art documentation" and not specifically the art was exposed itself.

In the field of art, we are accustomed, through the decades of coexistence with video art, with the exhibition of the art documentation. Thereby, we no wonder - in the field of digital art - that the main way of preserving the work happens, in a priority way, through the conservation of its data (informational/computational). We have in mind that one of the artwork configurations in contemporary context is recognizably that of a "document" of art (in the works, for example, where the visual artist recovers his and other people memories or shows processes of his artistic production etc.)⁴.

Thinking in accordance with Arthur Danto (2006) on the art world, but differing in essence, we could say that what the preservation of digital art conserves as data is - and is not - one established work of art in an "other" art world. The transfiguration practiced by the digital artist, identified by Danto in transforming the image of Andy Warhol's *Brillo Boxes* (1964) in art, it is not the same, since it leaves the work in a place apart. In one sense, when we compare the *Brillo Boxes* with the documentation idea mentioned by Groys about video art, we could consider them an archiving of visual information of products/goods in artistic context. The custom of "documenting" brought by video art can be seen, therefore, in this example of the art of the second half of the twentieth century.

⁴ See, for example, Rosângela Rennó's exhibition *The universal archive and other archives* (Centro Cultural Banco do Brasil, Rio de Janeiro, jul./set.2003), as well other pieces of the artist.

At least some of the experiences of the second half of the twentieth century, noticed on the development of video art, can be recognized as experiences of documentation, the artwork's transformation into information to be exposed. Digital art has found difficulty in being preserved beyond just the conservation of its data. In the context of its filing as data (informational and/or computer), the piece of art is likely to be recognized as similar to any other "thing" or "action" that can be documented in society, from the registration of a birth or even the name a building.

Of course, as seen in the previous paragraphs, there are other ways to see a contemporary work of art without thinking of it as data. Thus, the artistic field also maintains its system (CAUQUELIN, 2005, p.14) and allows people to keep thinking, studying, creating, selling and buying what is considered art today. However, with the change of the *epistemes* in the contemporary context, as well as the difficulty in defining the fields of knowledge (for example, art - communication and information technologies), there are difficulties in defining what is art (beyond the "traditional" difficulties of that definition).

In other words: we know that it has been difficult - there are at least two centuries - to say what is and what is not art because of the multiplication of artistic production system under the influence of changes brought about by the Industrial Revolution. With the advent of video arts, and now the expanded relationship between the arts and technology, the difficulties in defining are multiplied. Those difficulties are more explicit when we think the preservation of the art technology from the artistic and industrial context.

3 THE PRESERVATION OF THE TECHNOLOGICAL ART

When we look at the art produced in relation to digital technologies, it is fascinating to focus on its purely technical aspects (description of the production process and the use of technology). The fascination stems from the need to observe those aspects considering that the curator/conservator of digital works has to know the production process, to look for different ways to conserve it and to make the piece accessible to the public at the same time. But that fascination ends up taking the curator/conservator to choose the most technically viable path: the preservation of the work as data, such as documentation or information to be archived (GOBIRA, 2015).

The concern is about making the piece accessible to the public, but as data, even in a collection (or technical specifications in the database). There is an inattention (or unconcern) with the expository dimension of the work of art in its aesthetic plenitude: whether interactive (in interaction with the interactor); physical (in front of the exhibition visitors to be touched or enjoyed in several positions); or software (eg: seen/heard in virtual reality) etc. Just the most talked dimension of works of technological art - the size of yield/performance caused in

the relationship between works and public or machine and public - is forgotten (or abandoned) when the emergency its preservation occurs, becoming diagrams with forms of interaction ("presence sensor connected to a PC...", "designed interface under screens 200cm for 150cm with a 3000 lumens projector connected to a MacMini allocated within a cube 3m distant from the projector ... ") or a mere description, such as "the interaction occurs with the interactor remaining in front of the camera that captures the position of his body and...".

Thinking about a **full** preservation or, as here if you prefer to refer to it, **complete**, requires an effort of consideration in assuming the manifestation of the piece as a phenomenon. Understanding it as a phenomenon allows the work of art to be felt/sensible (Coccia, 2010) in the same way as it is possible to feel/to sense other things in the world. The way of preservation presented so far shows that the sensitive dimension seems to be supplanted by the focus on quantification of the work as data (informational/computational). However, it is forgotten that those data about the artwork carry a concentration of its technical and descriptive aspect, one of the powers of the sensible. This feature has its value, but it cannot be the only value accepted in preservationist process.

When we choose to deal with the piece as data (storable, quantifiable, informational/computational) in digital preservation of digital art, we do not differentiate it from other sensible things in the world. That cognition is clearer when we remember the scientific increasingly difficulty to distance the fields of knowledge (the hard sciences of social, biological etc.), as well it happens in the formation of new fields.

The work of digital art as **data** is a concrete and accepted dimension in the studies of the field, not only on its preservation, but on its understanding as a work of art that exists in a "digital" condition. We have noticed (and it has already been pointed out in other works: GOBIRA, 2015; GOBIRA; CORREA, 2016) that often we are led to the limitation of the artwork when we reinforce its dialogue with digital media. Meanwhile, it seems that there are some choices being made: when the "art" is defended, it is not admitted the piece as data (at least not completely); when there is no attachment to the field and to the "art", it is possible to abandon the conception of art as something beyond the data and assume the data as a study element. More specifically: to keep the focus on the information and its aesthetics; something that can even be carried out starting from discussions on the aesthetics of information, such as Max Bense (2003).

From that debate, we can begin to see that the technical feature - until then extremely dominant, especially in studies of preservation - can not override the aesthetic feature arising from the work of art. The aesthetic features of digital artwork have been at least set aside when thinking about preservation, especially when it chooses to preserve: descriptions of the pieces; photos and videos of/about the works; the code of some works. And it is neglected: the preservation of the interaction (of the user/interactor with the piece) as the piece was exposed; the errors (glitches) that there were (and there will be!) during the exhibition;

among other numerous elements that already make up in a recognized way the piece of digital art which is not limited only to the "work" of a machine or the stability of a code.

Since Gobira and Corrêa (2016), the issue of preservation of digital artwork, not only as information, comes calling our attention. While there is a need to preserve, we know the difficulties that digital media saddles to the efforts of the preservation, bringing the researcher and the conservator the choice of keeping the piece as data (informational/computational).

In doing so, there are some problems handled not in decisive way, but as an opening of discussions that will likely be raised by the next generation of academic papers that will build by different *epistemes*. One of the problems is just what came up above: when we consider that the work of art preserved as data has the power to be sensible, we consider that the data are becoming equal to anything else in the world. When reducing (or increasing, depending on your point of view) the work to data, it seems we are removing from it (the artwork in general) its forward distinctions to other things in the world. So why it should be preserved?

4 A PRESERVATION BEYOND DATA

Digital art, as we have discussed here, has a wide field and several possibilities of works: since only digital images, concept art, illustrations made in digital media, digital video etc.; and works of art involving robotics, immersive virtual reality, telematics or varied located interactivities etc.

The field also features a wide and complex range of prerequisites to be met for each preservationist project. A digital image performed on particular software demands to achieve a full technical preservation at least: the conservation of the operating system and of the software used to create the image; a machine for running or emulating the operating system and the software used; and the image itself (image code kept possibly in some extension). Now imagine a work of art that is set as an interactive installation which uses projection, interaction with a similar interface to games, as well as a similar physical apparatus to automation structures (robotic arms, for example).

For each digital artwork specification it is demanded a type of preservationist technical treatment. The specific technical treatment will not be found in this paper and has not been sufficiently developed. However, its need has been at least signaled by recent studies (such as we see in: LA FERNA, 2016). The proposed reflection was up to here in the interstices between the needs to think about the technical preservation beyond the preservation of data/documentation of work reaching its sensible configuration as a phenomenon.

By understanding the existence of not only the technical dimension of the work, but also the aesthetic one, we choose to think about full preservation. That idea, due to the complexity of the types of digital works, is extremely difficult to be even discussed deeply. That is because of the world's first digitalization wave that was experienced between the end of the twentieth century and the first decade of this one. This wave remains at an early stage in countries that still have difficulties in accessing digital technologies, but it is a path that seems to be inevitable and that strengthened the semantics of the adjective "digital" as "advancement/evolution."

When we mention a "digitalization" of the world in the paragraph above, that understanding has repercussion in the field of preservation in general. Until now the "digitalization" of works and documents is more and more studied, researched and held than what is thought about the full preservation of digital natives or works of technological artworks. Associated to this maximum need of digitalization is the idea that it will make the access to the work or the document be expanded to a wider audience than visitors to a collection. We should have a necessary care of realizing that the solution of digitalization everything to promote access is not unique and/or ideal for all cases.

The tendency to think of "stock" of information (BARRETO, 1994), driven by the field of Information Science and processes and digitalization techniques, ends up in only - as the stock term and concept itself reveals - generating accumulation of varied information when only the technical element is included. That path is not something questioned here since, as stated above, we are in a flow of "digitalization the world" that seems inevitable or even unquestioned. But even without questioning it here and now, we need to think if it is really convenient to have that process as the only way, because it influences a whole field with terminologies and trends.

Specifically, in the case of art we should think, for example, from the perspective of a curator of digital art exhibitions. In a few years (and because of planned obsolescence it won't be many years to that likely scenario manifest) a curator will want to redo a digital art exhibition of a particular artist or group of artists. What will he be able to show⁵? If the data (informational/computational) are the option chosen for the preservation of the digital artwork, he can only expose the documentation of the created software and photos of the first exhibition of the work, perhaps some elements of the design of interaction, or maybe some images of the artwork interface, i.e., technical elements that carry along the beginning of an aesthetic contribution. In other words, the power of the sensible in that work, but not the work itself; signs of the phenomenon, but not the phenomenon itself. Depending on the data

⁵ In addition to the documentation, the other techniques which were already established to restore digital artworks that were exposed are: emulation; migration; and recreation. (GOBIRA, 2015) Emulation can be performed with only the information about the work of digital art. Migration demands at least the codes and other computer records of the work. Differently, the recreation technique assumes that the process, which is related to any re-exposure of a preserved digital artwork, consists of redoing what has already been exposed. In this paper we argue critically (in crisis!) that preserving as much as possible of the technological art work will bring on a larger universe of choices for the formation of a future exhibition.

preservation techniques (and the artwork specificity), the curator with an appropriated technical team may reconstitute the work, emulate it, migrate it or recreate it.

The parts that made those artworks stored as data were, in its fullness, discarded as it is in fact done with hardware and obsolete software's media. It is important to remember that in collections it is common the practice of disposing, but in collections disposal is weighted. The options which are being discussed and taken to the archive as data show that there is the risk of disposal of hardware and software pointing for a single path: new and/or already created collections that receive or will receive digital art should expand, thus, the possibilities of reception of works.

We understand that the work of digital art, composed of hardware and software that become obsolete, brings the ephemerality as its features (GOBIRA, 2014). We emphasize that the choice for that ephemerality, often, is not part of the work, but considered an accident by both the artist and the exhibition curator who settled it while the work was being exposed. For preserving, it would be ideal to make the "obsolete" (from the industry perspective) live with the "current" or "the high tech" because the artworks are held from own aesthetic demands and not from the latest product (hardware or software) in the market. Even with the disposal of what is obsolete (hardware and software), the existence of the industrial dimension is not suppressed in the work (with data: informational/computational, technical/descriptive).

Reading Florian Cramer we can see the post-digital as a moment when the "digital" does not lead over the wishes of the society's technological "evolution", allowing some artistic "deeds" to mingle without hierarchy between digital and non-digital. In doing so, the author questions the existence of a "digital aesthetic" assuming a post-digital aesthetic, once everything noticeable is analog and not digital ("non-discrete signals such as sound and light waves") (CRAMER, 2014).

At no time this article dealt with the existence of a digital aesthetic, but if it is defended the way it was criticized by Cramer, that is another point that makes the artworks closer to ordinary products. We would be faced with a digital aesthetic that is driven by digital; the same digital which is more present every day everywhere in the world, revealing a "digital aesthetic" world. Thus, we would be facing the transformation of purely technical elements of the digital art (transfigured in the process of guard/preservation of data) in informational aesthetics elements.

Thinking like that would not be an innovation, given that the work of digital art has a different characteristic of artistic critical perspective that ran through the twentieth century and still goes on the twenty-first century and it is considered as part of the configuration of "contemporary art": using industrial objects for intervention (*Fountain*, Marcel Duchamp and his other ready-mades, for example); and using advertising to make collages (in Dada and Surrealism). So, if in the twentieth century artists chose by the use of elements of the

market/industry as part (or the entire) of their works of art, now it seems there aren't many subterfuges for artists - especially for those who work with art technology - unless to treat the use of such objects as ordinary.

Today the use of hardware (from computers to various sensors) and software (from the tools for creating and editing images to programming environments and different languages) originating from industry is considered a commonplace in the creation of digital art, including the trials of hacktivists artists⁶ and their groups that militate for actions of reuse and re-creation of industries products (*sic*).

Also, when preserving only the data in the museums, and in their collections and archives, becomes a fact, we may not forget that we are keeping clearly an artwork's industrial feature. Digital art is dependent on the industry (GOBIRA, 2014) that is not supplanted with the denial of conserving the obsolete parts of the work. Even if it is practiced a data preservation or a more complete preservation of the artwork, another memory is preserved. It comes out an industry memory and its hybridization history with the artistic field, and it could even form a new discipline: "industry and art history".

Even when it is preserved the maximum completeness of a digital artwork will not eliminated the industrial feature that the work carries, when it is overcome the technical element restricted to preservation as description/documentation, it will be possible that the access to the collection not to be held only through the compliment to a "virtuosity" of the artist or group of artists (and their equipment) in creating a work that is "robust", "stable" or any other adjective that refers to the performance. Except when that is the fundamental aesthetic argument of the artwork.

Preserving the digital artwork (including its industrial parts) in a complete way allows to see - even with the time distance - what the work is: a sensible phenomenon experienced by perception. It appears as a phenomenon impacted by various hybrid institutions of art itself (creation/exposure). That configuration made possible an improvement of the artwork composition, giving it a transitory life (such as art, as informational/computational data, such as industry) and it was allowed to move freely as art and as design, as media, as a means of communication among people.

Because we understand those social, economic and political situation, we seek here, through the idea of full preservation, to think about the artwork from curatorship perspective that is also too broad. That is a perspective that is not only linked to guard/preservation of works, but also to the possibility of exposure in the future, trying to give more meaning and reasons for its preservation.

⁶ See, for example, the Journal *Gambilogia Facta* (<http://www.facta.art.br/>), especially number 3, with the theme "HackerPoetics" launched in April, 2015.



5 FINAL CONSIDERATIONS OR ANTHROPOTECNIC AND MEMORIES' MACHINE

In a complete preservation (and without it), there is a risk: when we understand that the industry is providing a preservation of its memory now in places that are supposedly not "industry" (such as museums, archives and files), we have also preserved the memory of industrial machines with the aesthetic elements of the artwork. We are starting to preserve, rather, the industry and its machines (paradigms, equipment, software etc. – as informational/computational data or fully).

If humanity can be understood in its history as such, it is because it has come a biological evolution path. That human biology has a history - a history of the human lineage. By producing an industry preservation process, we are preserving and creating a history of machine line. The machine becomes a closed system very similar to human living system, studied by Humberto Maturana (2001), and its expansion around the planet takes almost autonomously, close to what is a computer virus, as we see in Jussi Parikka (2006).

That other constitution happens (is happening) automatically or naturally, as part of our constitution as human beings. It occurs engaged (sic) in the history of the human lineage that is made from human technics or anthropotechnics. For Peter Sloterdijk, anthropotechnics are "the methods of mental and physical practising by which humans from the most diverse cultures have attempted to optimize their cosmic and immunological status in the face of vague risks of living and acute certainties of death" (SLOTERDIJK, 2013).

For Fabián Ludueña Romandini, in a broader way, the anthropotechnics are:

techniques by which communities of the human species and individuals that make it up, act on their own animal nature in order to create, expand, modify, or domesticate its biological substrate, seeking for the production of what philosophy, at first, and soon after the biological and human sciences have become accustomed to call "man". (LUDUEÑA ROMANDINI, 2012, p. 9)

Digital technology, as every technology created by human knowledge, is an anthropotechnic. Digital culture is an anthropotechnic. Political economy is an anthropotechnic. From this, the preservation of digital data through the data guard (informational/computational) or integral is the preservation of an art that is in a split space (it is and it is not different from other things in the world). As we have seen, we can suggest the preservation reveals an anthropotechnic process which gives to the machine its own memory by repeating its full archiving or its data archiving.

The machine created by man also improves itself, engaging to the evolution of its predecessors. If computers occupied large rooms in the past, now the huge rooms are occupied by several smaller and smaller computers (such as servers or graphic processing

units etc.) or they are coupled to our body (smartband, smartwatch, smartphone) and we dress them (in wearable computing). We may also inhabit them in the smart cities, where we are surrounded by them, or within home, with domotic.

The machines - which can be considered equipment that "save memory" - have the human working in their favor, reconstituting their subjective, emotional memory through them. They joint to the human being (engaging) and inhabit in his memory (the memories of the machines are in the memory that humans develop during the experience with them)⁷, as well they do that, they settle in the works of art, being seen in a more clearly aesthetic way.

Choosing to preserve works just as data, as it turned out, it is a way that seems "natural". It is natural for revealing the similarity of the works with the rest of the products in the world, as it has been done since the advent of industrial products in the Universal Exhibition in the nineteenth century, accordingly shown by authors such as Walter Benjamin (2006), in *Passages*, and Giorgio Agamben (2007), in *Stanzas*.

Finally, we try to think that maybe it is necessary an effort to promote the full preservation (at least from an aesthetic perspective). We know that conserving works just as data makes less sense for the artistic field than it does to the field of Information Science and Museology. Even though thinking from these fields, when we expand what it is preserved in the digital artworks, not only collaboration is made with the curator of future exhibitions, but also the possibilities of images formation, that the work in a technical reserve has, will multiply. So, it is assumed here the perspective not of the fields of Arts or of Information Science and Museology, but the perspective of the artwork itself and of the return it to the public and its aesthetic form, even if such a method is another - emulated, migrated or re-created.

Thus, completeness or fullness of digital preservation of digital art is not in the technique of preserving beyond the data/documentation (informational/computational), but in the intention of the curator/conservator in preserving what manifests itself as art. Referring to Emanuele Coccia (2010), it would be an attempt to preserve something closer to the phenomenon that we call here "work of digital art" or "technological artwork" in its sensible whole. That generic effort can and must be instructed to every work that is willing to preserve, considering that the work is not just an "artwork", but also a work of "industry" (in hardware and software used), a political and economic work and therefore an anthropotechnic work.

⁷ More and more we have created memories of moments lived in conjunction with other people through machines that allow message exchanges in diverse applications, email etc.. However, the presence of machines in human memory is more concrete when we think of how the three-dimensional game environments, for example, and their narratives inhabit and stimulate players to create new stories. Thus, the memories begin to be created in the use of machines and counted among humans that lived experiences in games of various categories, especially MOBA (Multiplayer Online Battle Arena), MMO (Massively Multiplayer Online) and/or several RPG genre games etc.

REFERENCE

AGAMBEN, Giorgio. **Estâncias**. Trad. de Selvino José Assmann. Belo Horizonte: UFMG, 2007.

BARRETO, Aldo de Albuquerque. Questão da informação. **São Paulo em Perspectiva**, v. 8, n. 4, 1994.

BENJAMIN, Walter. **Passagens**. Trad. de Irene Aron e Cleonice P. B. Mourão. Belo Horizonte: UFMG/Imprensa Oficial de São Paulo, 2006.

BENSE, Max. **Pequena estética**. Trad. de J. Guinsburg e Ingrid Dormien Koudela. São Paulo: Perspectiva, 2003.

CAUQUELIN, Anne. **Arte contemporânea: uma introdução**. Trad. de Rejane Janowitz. São Paulo: Martins Fontes, 2005.

COCCIA, Emanuele. **A vida sensível**. Trad. de Diego Cervelin. Florianópolis: Cultura e Barbárie, 2010.

CRAMER, Florian. What is "post-digital"? **A Peer Reviewed Journal About**, vol. 3, issue 1, 2014. Disponível em: <<http://www.aprja.net/?p=1318>> Acesso em: <10/02/2015>

DANTO, Arthur. O mundo da arte. *Artefilosofia*, Ouro Preto, n. 1, p. 13-25, jul. 2006.

GASPARETTO, Débora Aita. **O "curto-circuito" da arte digital no Brasil**. Santa Maria/RS: Ed. do autor, 2014.

GOBIRA, Pablo. A preservação da obra de arte digital: reflexões críticas sobre sua efemeridade. In: 23º Encontro Nacional da ANPAP, 2014, Belo Horizonte. **Anais...** Belo Horizonte: ANPAP, 2014.

GOBIRA, Pablo. A obra de arte computacional e a sua memória: desafios para sua preservação. In: VII Encuentro latinoamericano de bibliotecarios, archivistas y museólogos, 2015, Valparaíso/Chile. **Anais...** Valparaíso/Chile: EBAM, 2015.

GOBIRA, Pablo; CORRÊA, Fernanda. Como preservar a arte computacional? Ações curatoriais para a criação e manutenção de acervos. In: Congresso do Núcleo Interdisciplinar de Estudos da Imagem NINFA/UFMG – O Borboletear do Método, 2016, Belo Horizonte. **Anais...** Belo Horizonte: FAFICH/UFMG, 2016.p.563-573.

GOBIRA, Pablo; MUCELLI, Tadeus; PROTA, Raphael. Instabilidade digital: a preservação e a memória da arte digital no contexto contemporâneo. In: 13º Encontro Internacional de Arte e Tecnologia (#13.ART): arte, política e singularidade, 2014, Brasília. **Anais...** Brasília: Medialab, 2014.

GOBIRA, Pablo; MUCELLI, Tadeus (Orgs.). **Configurações do pós-digital: arte e cultura tecnológicas**. Belo Horizonte: UEMG, 2016. (Prelo)



GROYS, Boris. Camaradas do tempo. **Caderno SESC-Videobrasil**, São Paulo, n. 6, p. 119-127, 2010.

LA FERNA, Jorge. Arquivos de arte digital – estratégias, metodologias e paradigmas. **Revista Observatório Itaú Cultural**, n. 19, São Paulo, Itaú Cultural, p. 77-85, nov./2015 – mai./2016.

LUDUEÑA ROMANDINI, Fabián. **A comunidade dos espectros**. I. Antropotecnia. Trad. de Alexandre Nodari e Leonardo D'Ávila de Oliveira. Desterro, Florianópolis: Cultura e Barbárie, 2012.

MATURANA, Humberto. **Cognição, ciência e vida cotidiana**. Trad. de Cristina Magro e Victor Paredes. Belo Horizonte: UFMG, 2001.

PARIKKA, Jussi. Antrobsceno. In: GOBIRA, Pablo; MUCELLI, Tadeus (Orgs.). **Configurações do pós-digital: arte e cultura tecnológicas**. Belo Horizonte: UEMG, 2016. (Prelo)

PARIKKA, Jussi. A máquina viral universal. Trad. de Luiz Roberto M. Gonçalves. In: BARRETO, Ricardo; PERISSINOTTO, Paula (Orgs.). **FILE: Festival Internacional de Linguagem Eletrônica**. São Paulo: FILE, 2006.

SANTAELLA, Lucia. **Temas e dilemas do pós-digital: a voz da política**. São Paulo: Paulus, 2016.

SLOTERDIJK, Peter. **You must change your life: on anthropotechnics**. Wieland Hoban (Transl). Cambridge: Polity Press, 2013.



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