

FOCUS

Media Preservation

Montage and Assemblage:
an Aesthetic Shock

Aesthetics of Cinema

Transmedia Art of Instauration

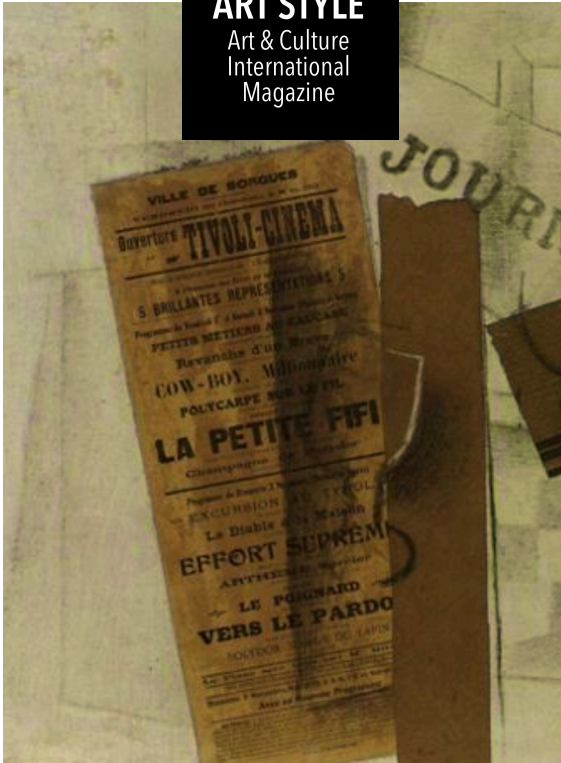
Aesthetic Theory Towards Semiotics

Aesthetics of Inter-space



ART STYLE

Art & Culture
International
Magazine



Cover photo: Detail of *Checkerboard Tivoli Cinema* by Georges Braque, 1913. Public domain US. "After having made the [first] papier collé, I felt a great shock, and it was an even greater shock for Picasso when I showed it to him." Georges Braque in *Conceptual Revolutions in Twentieth-Century Art* (Galenson 2009, 114).

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Art Style | Art & Culture International Magazine is an online, quarterly magazine that aims to bundle cultural diversity. All values of cultures are shown in their varieties of art. Beyond the importance of the medium, form, and context in which art takes its characteristics, we also consider the significance of socio-cultural and market influence. Thus, there are different forms of visual expression and perception through the media and environment. The images relate to the cultural changes and their time-space significance—the spirit of the time. Hence, it is not only about the image itself and its description but rather its effects on culture, in which reciprocity is involved. For example, a variety of visual narratives—like movies, TV shows, videos, performances, media, digital arts, visual technologies and video game as part of the video's story, communications design, and also, drawing, painting, photography, dance, theater, literature, sculpture, architecture and design—are discussed in their visual significance as well as in synchronization with music in daily interactions. Moreover, this magazine handles images and sounds concerning the meaning in culture due to the influence of ideologies, trends, or functions for informational purposes as forms of communication beyond the significance of art and its issues related to the socio-cultural and political context. However, the significance of art and all kinds of aesthetic experiences represent a transformation for our nature as human beings. In general, questions concerning the meaning of art are frequently linked to the process of perception and imagination. This process can be understood as an aesthetic experience in art, media, and fields such as motion pictures, music, and many other creative works and events that contribute to one's knowledge, opinions, or skills. Accordingly, examining the digital technologies, motion picture, sound recording, broadcasting industries, and its social impact, Art Style Magazine focuses on the myriad meanings of art to become aware of their effects on culture as well as their communication dynamics.

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ALLE DE BORQUES

TIVOLI-CINEMA

BRILLANTES REPRESENTATIONS
PETITS METIERS AU CASCAR

Revanche d'un Reves
COW-BOY, Millionaire
POLYCARPE SUR LE FIL

LA PETITE FIFI

Championne de l'Acrobacie
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EXCURSION AU TIVOLI
Le Diable à 4 Mains

EFFORT SUPREME

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Editor's Note

Dear readers,

Concerning the characteristics that represent socio-cultural transformations, specifically, we always consider themes that can approach art in its practical and theoretical scope in our editions. Contemporary culture and society have – as their leading reference – art through its ideas, forms, and functions, since it is in the arts that the representative features of our times are found. Experiences are transforming representation's models – like movies, songs, or artworks in any of their formats – building and representing our history, our perceptions, our understanding, and our sense of belonging through what represents the heritage of humanity. Thus, in digital cultural heritage, Hans Dieter Huber shows us what must be preserved for posterity and the conditions between what is analogical and digital in its preservation processes, especially regarding media preservation.

At its limits in representing imagination, ideas, and thoughts, art is always seeking greater understanding, knowledge, and – above all – a better way to communicate and relate culturally and socially, often revolutionizing the entire system! This is precisely what is in this edition of interest – an approach to this transformative scenario, often not assimilated or understood, which is, through its various forms and shapes, intrinsically related to cultural changes. To this end, Dominique Berthet presents his article entitled "Montage and Assemblage: an Aesthetic Shock." In retrospect, he bases the primary aesthetic reflections on modern art and avant-garde movements in their effects, mainly to represent the visually perceived universe of the constructivists, cubists, futurists, dadaists, and surrealists, configuring images through collage, montage, and assemblage to the techniques of film editing. He shows in his article the methods and theories of significant Russian filmmakers in the development of film editing effects, still in use today. We can learn even more about cinema in its current techniques with Russian researcher Alina Temliakova in her article "To See the Cinema: Human - Sight - Reality."

However, by focusing the image on its transformative force, – as well as its effects as a result of technological advances and media convergence – the art universe increasingly presents the complete capacity of what we understand as *Gesamtkunstwerk*. Natasha Marzliak, in this sense, offers readers of Art Style Magazine artworks in their mutual interference between new digital technologies, cinema, video, sound, literature, dance, and performance in the immersion of environments of a space-time conceived as "transmedia art of instauration" in her article, "Transmedia Art of Instauration and Art Discourse: Moving Images and New Technologies in Contemporary Art Spaces."

But what do we know about visual and written languages in their meanings? What are the references in our history of image and theory for social, historical, and technological development? Martina Sauer, in her article "Framing Emotional Perception: Affect and Effect of Aesthetic Experience, or Extensions of Aesthetic Theory Towards Semiotics," explicitly guides us through how the public perceives a work of art or an image, the viewer's aesthetic experience, and its effects – and, consequently, the influence of this effect on actions concerning the perceptions of forms in motion and space forms of the world, the rhythm of shapes, colors, and light, in both art and design. Martina takes an approach between classical aesthetics and semiotics.

Indeed, since figurative art, the evolution of representation techniques and modification of perception is due to the influence of two revolutionary visual systems that emerged in the Renaissance. The first is based on images, with paintings on flat surfaces capable of leading perception to illusion through illumination, colors, and linear and aerial perspectives; then there is typography in the sequential ordering of information and space. However, to think about art today, in a global dimension, is to think about the relationship of the human being not only in their respective societies and cultures at a given time but in the digital time-space relation and cultural diversity. Therefore, it is essential to remember that the way we perceive the world can vary from culture to culture, especially among Western and non-Western countries, because, primarily, our ways of thinking and perception derive from the systems of visual and written languages. Thus, in the West, the development of writing conditioned us to individualism through the sequential and linear notion – from left to right as a sense of progress and evolution – of logic and knowledge formation.

It is also clear that we are conditioned to the limits of our environment, seeking beyond other discoveries through the technological evolution of our senses. It is on this path that we end our edition with a subject of little knowledge in the Western art universe, entitled "Toward an Aesthetics of Inter-space: From Microgravity Environment to Multi-gravity Environment" by Akihisa Iwaki, using the term "interspace" to examine a situation where relatively closed space environments artificially coexist in the universe. Finally, we conclude another edition with the contribution of significant and original articles for those interested and researchers in art and culture studies.

Enjoy your reading!

Christiane Wagner
Editor in Chief

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The What, the Why and the How of Media Preservation

Hans Dieter Huber

Abstract

On the one hand, there are general cultural and theoretical considerations, on the other hand, specific problems that need to be solved. There is still a big gap between the two areas. The general considerations concern questions of how we should deal with our digital cultural heritage. What should be preserved for posterity? Why should the things selected be preserved? What strategies, practices or models have evolved over the last decade in media preservation? Special questions arise with concrete problems. They are always media- and case-specific. Basically, a distinction must be made between the digitization of analog media such as photographs, films, audio tapes or videos and the preservation of digitally born media. The translation of analogue media into digital objects is in a more comfortable situation, as there is still the analog "original", which can be played back under good conditions. More complicated is the case with digital born media. Their preservation and conservation requires more complex approaches.

Introduction

If we talk about the preservation of digital media for posterity we are confronted with two completely different sets of questions - general and case specific ones. The general considerations concern questions of how we should generally deal with our digital cultural heritage. What should be preserved for posterity? Why should the things that are selected for posterity be preserved? And what strategies, practices or models have evolved over the last decade in media preservation?

What is a digital object?

First, I would like to define a central concept of my presentation. The term 'digital object' is taken from the Open Archival Information System (OAIS) developed by NASA and ESA in 1999.¹ (Fig. 1) A digital object is defined as an object composed of a set of bit sequences.² Anything that can be stored and processed with a computer can be called a digital object. These can be simple text or image files, complex multimedia applications, interactive digital systems or complete operating systems.

In our context we can distinguish two different types of digital objects. The first group is (a) digitized copies of analogue media, for example photographs, films, videos or audio tapes. If we have an analog magnetic videotape from the seventies, which begins to dissolve into its components, one proceeds to the digitalization of the content. Today, digitization is often the only way to preserve an obsolete analogue medium in the long term. The advantages of the transformation from analog to digital objects are that you still have an analogue original, even if it may no longer be functional in the near future and can only be studied in terms of its form, design or materiality. A second group (b), however, are those digital objects that are already digital when they are created. That's why we're talking about digital born media. Here, too, the long-term preservation of this genuinely digital heritage is increasingly important for posterity. However, these objects represent a completely different challenge for long-term preservation.

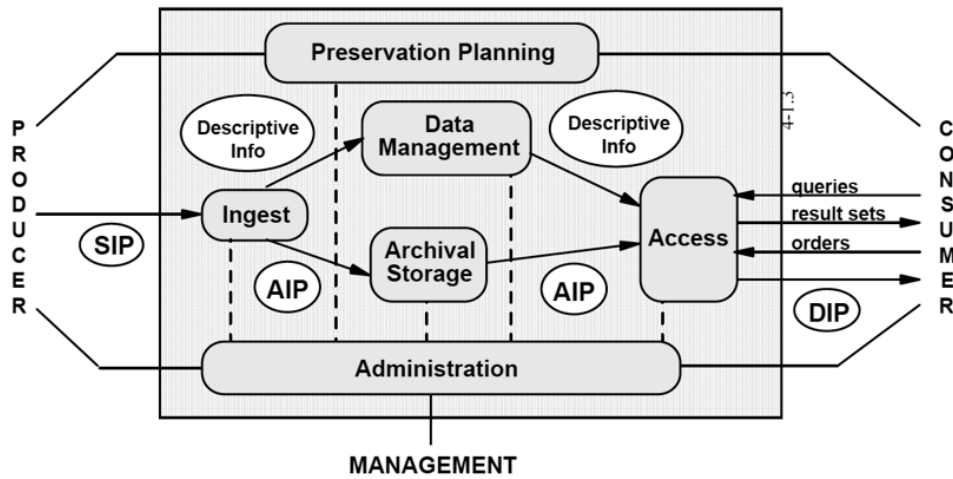


Figure 1: Open Archival Information System (OAIS) developed by NASA and ESA in 1999.

Musealization

In the process of its musealization, a digital object or media artwork undergoes a profound transformation, although nothing changes in itself. The musealisation is a transformation of the original context. It is completely exchanged and replaced by another, namely the context of the museum. In the museum, media art becomes musealized. It becomes a museum's object. What does it mean that an object becomes a musealized object? If you take a closer look at how media artworks find their way into a museum, you can distinguish between the following activities: creating, searching, finding, selecting, purchasing, managing, preserving, presenting, interpreting, understanding, evaluating and publishing.

In this large bow which ranges from the creation of an art work under the hands of the artist to the publication of musealized artifacts, which are important for the memory of a society, preservation is only a small but important link in a chain of causal conditions and possibilities for a responsible historical approach to one's own history. But it also becomes clear that each phase of musealization depends on the preceding phase. Where nothing has been selected for a museum, nothing can be preserved. Where nothing is managed, nothing can be explored. Where nothing is displayed to the public, nothing can be remembered.

In the museological context, the choice of a digital object for a collection is understood as a targeted search and active selection of those digital objects from overall reality that are potential bearers of museality.³ From the wealth and richness of the objective fund of reality, the curator should actively select those digital objects that represent a cultural value whose preservation and remembering lies in the interest of society.⁴ The musealized object as a materialized information documents a certain stage of development, a style, a time or epoch of society. As a scientifically well documented and integrated document, it is equipped with an additional value of authenticity and trustworthiness.⁵

Whatever we do in a museum depends on our values. These values are of central significance for future preservation.⁶ Collecting is always a statement to the world. Only an active selection based on clearly structured collection criteria can guarantee that a historical argumentation which is later derived from a totality of a museum's collection is sufficiently representative.⁷ Such an assumption is of course an ideal one and usually does not correspond to the actual history of a museum's collection.

Which criteria should determine whether digital objects are handed down or perished?

In general, one could argue that it is the cultural significance of a work of art for posterity that should decide whether it is preserved or forgotten. What does that mean? In sciences we are speaking of the impact factor. In the present it is practically very difficult up to impossible to recognize which digital objects of today's time could be of great importance in the future. In order to measure the influence that an artwork has exerted on others, there must be a historical distance between the time of creation of an artwork and the determination of its historical influence or significance. But what criteria can be applied for "historical impact"? The frequency with which a work is accessed, quoted or depicted in art-historical literature says something about its possible significance for the art system. This could be a possible impact factor for a digital artwork among other criteria. The history of a work's exhibitions could perhaps be a good indicator of its historical influence and estimation.

The historical significance of a musealized digital object does not result from its storage alone, but also from its inventarisation, documentation and presentation.⁸ The historical and cultural significance of a musealized object thus arises through a re-contextualization within the framework of the scientific reappraisal within a museum. The museums contextualization is a re-contextualization. For the object is taken out from its original context in the art world and transferred into a new, artificial museums context.

Long-term preservation

When it comes to the long-term preservation of media artworks, we have to deal with various special starting points.

1. On the one hand, a digital object like a media artwork is usually only available in a single version, which means it exists only once in the world. It is precisely this characteristic which plays an important role especially in installation art that makes long-term preservation so precarious. These objects do not exist as an industrial mass product in thousands or millions of copies but only once in the world.
2. The second aspect concerns the heterogeneity of the materials, their different properties, functions and their respective state of preservation. Especially in media works of art, one encounters an interplay of the most diverse materials, which require different optimal conservation conditions with regard to light, temperature and air humidity, which are often mutually exclusive.
3. Therefore it is very difficult or even impossible to store a work of media art in an optimal condition such as a Nam June Paik sculpture for instance.
4. Materials can have a different ontological status, which means a different authenticity.
5. There may be objects and materials that were created, modified, reworked or substituted by the artist himself at a later date. However, there may also be elements which are industrial mass-produced and were only purchased and used by the artist.
6. There may also be units and elements manufactured by third parties, such as programmers or television technicians, but which are genuine components of the digital artwork without it would not function.
7. Media art installations very often contain technical components and units that are not part of the visible surface of the installation, but are located behind the scenes. These units can be substituted more easily than objects made by the artist himself or which play an important aesthetic role in the appearance of a work.



Figure 2: The Church of Our Lady, Dresden 2011. Photo: Hans Dieter Huber.

Substitutes

The relationship between exchangeable and non-exchangeable components of a digital object is part of its historical authenticity. Compared to the richness of an original component, a substitute offers only a very reduced possibility of reference to the social and cultural meanings of the original time in which the work was created. A substitute can only trace the historical reference and authenticity back to its own time of origin and not beyond. Substitutes block the relationship of the present to the original time and context in which a work was created. This gradual crumbling of reference by substitutes becomes all the more problematic the more components of a work are substituted over time. Nevertheless, even a work in which there are only very few original components left like in the rebuilt Church of Our Lady in Dresden (Fig. 2) can still be an authentic, historical original.⁹ The dark stones are original stones from the Baroque, the bright ones are from the 21st century.

Strategies

New media age much faster than old media. Already after three to four years you have to reckon with hard disks failing to work and causing serious data loss if you have not developed a regular backup strategy. Integrity, authenticity and trustworthiness of digital objects are endangered in their long-term perspective above all by the obsolescence of data carriers, software programs, operating systems and hardware. In general, different strategies for long-term preservation of digital objects are being discussed today. Not all of these strategies are equally suitable for every object type. The integrity and authenticity of digital objects are changed in different ways by the various conservation strategies. The different strategies are: hardware preservation, bitstream preservation, migration, emulation and reconstruction.

Hardware Preservation

The standard strategy for most museums is to physically store a work, whether that means packing selected equipment on shelves or archiving digital files on tapes, CDs or hard drives. (Fig. 3) What does this putaway strategy mean for digital objects? What could a museum or archive physically store in the case of a digital object? It would have to store the complete digital system, the hard disk, the software, the operating system, the computer, the monitor, the peripherals, the cables and the interfaces. Shortly, a trusted archive would simply have to store everything together in its original functionality as a heterogeneous mix of different materials and media, each of which in the worst case require different and mutually exclusive storage conditions.



Figure 3: Herbert W. Franke's original computer equipment from a donation of 2007, Karlsruhe 2012. Photo: Hans Dieter Huber.

There are two different intentions for hardware preservation. In the first case, hardware preservation is used by archives as a strategy for archiving the content of the digital objects. The goal is to maintain the information, the readability and functionality of the digital objects, but not the original hardware. For these reasons, they try to keep the hardware and software platform running as long as possible and then they replace it. In the second strategy, which is particularly pursued by art or design museums, hardware preservation is used to preserve also the authentic "look and feel" of the original hardware and software platform for aesthetic experience.¹⁰ While repairs and spare parts primarily serve to preserve the functionality of digital objects in the first conservation strategy, ethical and aesthetic aspects of the original hardware and its authentic preservation also play an important role in this collection area. Maintaining the functionality of digital objects is no longer the only criterion. Rather, devices and components should be used that are as historically appropriate as possible in order to make an authentic aesthetic experience with a historical computer platform. The advantages are obvious. No other strategy can convey so much of the intrinsic value of historical, original, digital objects. The look and feel of such a functional unit cannot be surpassed in authenticity and possibilities of later aesthetic experiences.

In order to preserve a file or program with its specific functionality and original environment of hardware and software, it is necessary to preserve the computer with the original operating system, the original software and the original files as well as the associated interfaces and peripherals, complete and functional. But even large quantities of spare parts are subject to natural aging and physical deterioration, even if they have been stored completely unused and brand-new. If the storage of spare parts as a conservation strategy no longer helps, the conservation of the bitstream is the next step.

Bitstream Preservation

The basis of all archiving activities is the physical preservation of digital objects, the so-called bitstream preservation. Storage strategies are used here that provide redundant data storage on at least two different storage media. The storage media used are regularly replaced by newer systems to prevent both the physical deterioration of the storage media and the obsolescence of the technologies used. There are four types of bitstream preservation: refreshment, replication, repackaging and transformation.¹¹ During refreshment, individual data carriers are exchanged for new, similar data carriers. The files, such as a DVD, are copied directly to a new DVD disc, the data from a CD to a new CD and the data from a hard disk to a new hard disk of the same size. This means that an older medium is replaced by a newer medium of the same type and size.¹²

In replication, data is also copied from an older data carrier to a new one. However, it can be a data carrier of a different or bigger size. Replication takes place, for example, when you copy the data from several CDs or DVDs onto a single Blue-Ray disc or a bigger hard disc. The new data carrier can therefore usually no longer take the place of the old one. In contrast to the refreshment technique, changes in the structure of the physical storage take place here. Repackaging is a preservation process in which the archive package is changed. The change does not affect the data contents, but only the structure of the archive package. The data is repacked and rearranged.¹³ Transformation, on the other hand, is a migration process in which the content data of an archive package is also changed. This happens, for example, when converting an old Word file into RTF format to make it easier accessible for future Word versions or when converting a JPEG file into the TIFF format suitable for long-term archiving.

Migration

The aim of migration is to ensure that digital objects together with their ingest informations and their context remain available and readable over longer periods of time in the environment of their time-related hardware and software architecture. What does the strategy of migration mean for the preservation of digital objects? Migration is not a major problem as long as the archived object can be preserved in all its functionality on a younger operating system and with younger software. But we know of numerous digital objects, for example complex websites from net.art, which depend on a whole bundle of controls, scripts and protocols which today are hardly used any more and are no longer processed by newer formats such as Flash and thus produce error messages. The next solution, when the strategy of migration has come to an end, is emulation.

Emulation

The emulation concept was proposed by Jeff Rothenberg of Rand Corporation in 1995, who considered the migration concept too unsafe in the long run. (Fig. 4) In principle, the concept of an emulator is based on replicating the functionality of an obsolete operating system from the time in which the archived digital object was created. This means that a hardware and operating system environment that no longer exists anymore is to be simulated in such a way that the digital information in its original software environment and thus also in its original functionality and aesthetics can still be made accessible and maintained for later times.



Figure 4: Jeff Rothenberg of Rand Corporation in 1995. Photo: Hans Dieter Huber.

There are three different types of emulation in this area. It can be used on the hardware level, on the operating system level, but also on the software level. For example, the original hardware of a digital object can be simulated as software with an emulator that can load the archived operating system and the software components based on it. An example of an operating system emulation would be an MS-DOS emulator that can run the programs for this outdated operating system on contemporary, current computers. "Unlike migration, which creates a new and more current version of the digital object itself, emulation does not change the original objects."¹⁴ However, there is now a more elaborate approach that seems to be promising for the future of emulation, namely the so-called Universal Virtual Computer (UVC) from IBM. The UVC is a well-documented virtual computer that can be replicated on various computer architectures, including those of the future. Based on this virtual computer, further programs or emulators can be written, with which one can execute older digital objects.

The advantage of emulation is that the original objects remain unchanged. A conversion is not necessary. In addition, less storage space is required, since migrated objects do not have to be saved in addition to the originals. The disadvantages are that emulators are technically difficult to implement for complicated digital objects or systems. In addition, there is a high expenditure for each hardware generation change. The basic and unsolvable problem of emulation is that the emulator itself depends on a specific operating system and only runs on this operating system. The problem with the emulator is that it ages and you would have to write an emulator for an emulator for an emulator. In theory, a new emulator must be developed for each new operating platform. If emulation is no longer a possible solution for long-term preservation, the last possibility at the present time is a radical reinterpretation or reconstruction of the work.

Reconstruction

The most radical preservation strategy is to reconstruct a digital object or a media artwork each time it is re-installed or displayed. Ion Ippolito of the Variable Media Initiative in New York has proposed this strategy under the term Re-Interpretation for certain works such as performances, installations or networked art. But he himself is very sceptical about reinterpretation. He writes:

The most radical preservation strategy is to re-interpret the work every time it is re-created. (...) Re-interpretation is a dangerous technique when not warranted by the artist, but it may be the only way to re-create performance, installation, or networked art that designed to vary with context.¹⁵

The re-construction, re-installation or re-enactment of a digital object should be based on a precise notation, instruction or detailed documentation. At that point the issue of an extended documentation together with the artist comes into consideration. If possible, the conditions and possibilities of a re-construction should be documented in a joint conversation with the artist and the preservation management during his or her lifetime. An agreement should be sought as to which parameters of an artwork may not be altered and which parameters may be varied or substituted by other components. Because then a reconstruction is authorized by the artist him- or herself for future display. The Variable Media Initiative has developed an extensive questionnaire in which the fixed and variable parameters of a work can be documented for posterity through a precise questioning of the artist.¹⁶

The current state of conservation science is to conduct and document extended interviews with the artist regarding an authorized re-installation, re-enactment or re-construction. The Stedelijk Museum in Amsterdam for instance did this in 2010 with the main work of Joan Jonas *Organic Honey's Visual Telepathy /Organic Honey's Vertical Roll*, which was created during several performances and in various installation versions from 1972 to about 1994. (Fig. 5) They developed and documented both the unvariable and the variable parameters of that installation together with the artist herself.



Figure 5: Joan Jonas *Organic Honey's Visual Telepathy*,
Organic Honey's Vertical Roll Joan Jonas' 1972-1994.
The Stedelijk Museum in Amsterdam, 2010.
Photo: Hans Dieter Huber.

Summary

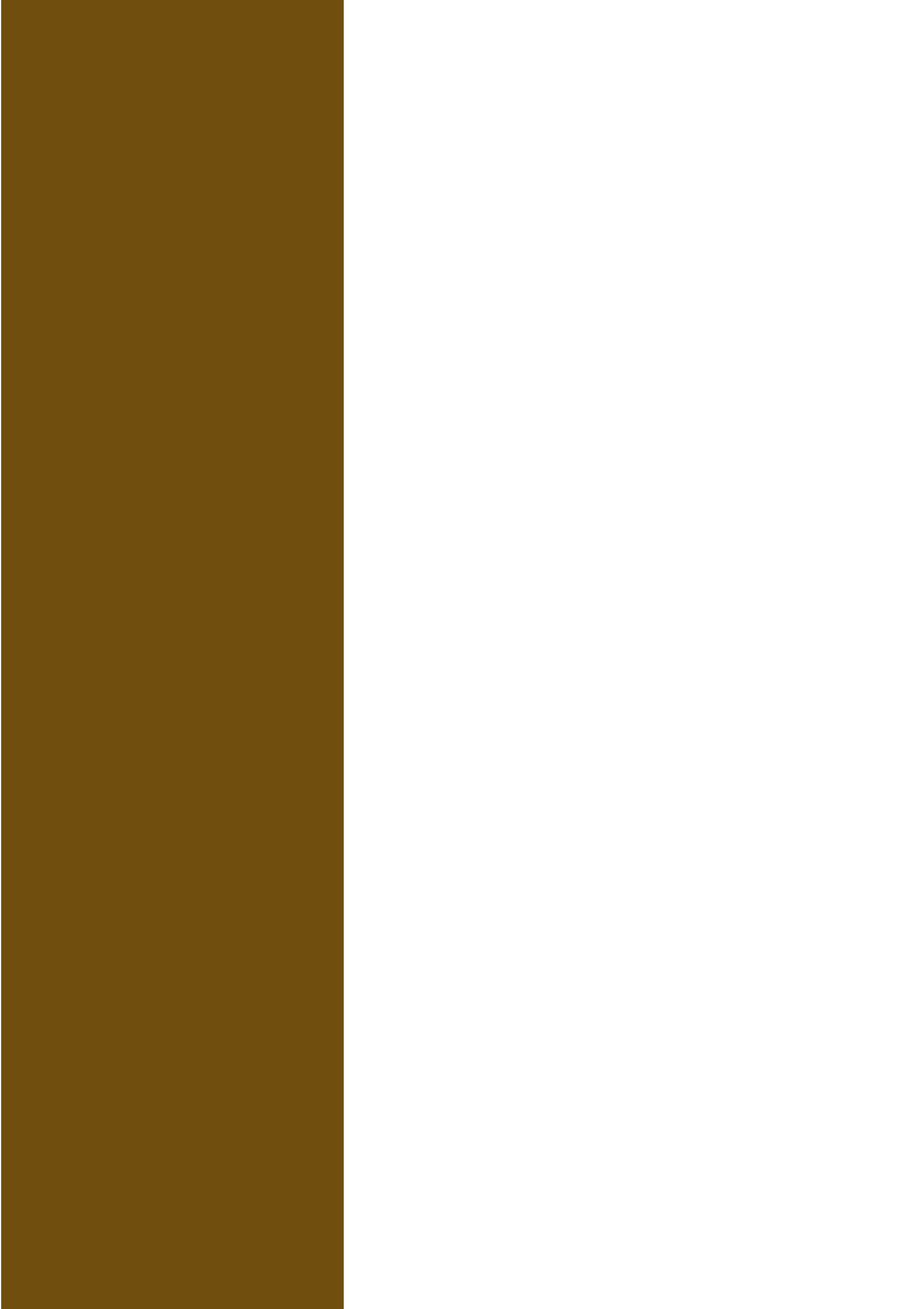
Collecting is, in essence, an irrational human behavior.¹⁷ Collecting is a statement to, an interpretation and evaluation of the world. Collecting digital objects means creating and producing a world, preserving and presenting it to posterity.¹⁸ Museums among others are the collective memories of mankind.¹⁹ A museum should therefore have written collection guidelines according to which it actively collects digital objects and works of media art. If possible, avoid passive collection and replace it with active selection criteria for the objects you are looking for. Musealized digital objects are looked at from two different perspectives, namely firstly under their historical reference and secondly under their present significance. Authentic digital objects can serve as historical evidence and testimony to something that was once the case in society. They are evidence and narrators of past realities. Their history is authenticated by its musealization. The narration of a true story turns any object into a historical document that stands for something else and represents that story. Particularly in societies where freedom and democracy are threatened by oligarchs or totalitarian dictators, museums also have an eminently political role in the preservation of democracy, freedom and autonomy of our cultural life of the past.

Author Biography

Hans Dieter Huber, born 1953, lives in Stuttgart. 1973-77 studied painting and graphic arts at the Academy of Fine Arts in Munich, 1977-1986 studied art history, philosophy and psychology in Heidelberg. 1986 Doctorate with the work 'System and Effect. Interpretation and meaning of contemporary art' (Munich 1989). 1994 habilitation with the work 'Paolo Veronese. Art as a social system'. From October 1997 to September 1999 Professor of Art History at the Academy of Visual Arts, Leipzig; from October 1999 to September 2019 Professor of Contemporary Art History, Aesthetics and Art Theory at the State Academy of Fine Arts Stuttgart. From May 2006 to October 2011 he was head of the International Master Program "Conservation of New Media and Digital Information" at the State Academy of Fine Arts Stuttgart. From March to June 2007 he was Senior Fellow at the International Research Center for Cultural Studies in Vienna. From December 2006 to November 2009 he was Associate Professor at the Research Training Group Image, Body, Medium at the HfG Karlsruhe. Since October 2007 member of the International Council of Museums (ICOM). Since March 2009 member of the Scientific Board of the Society for Interdisciplinary Image Science. Since May 2013 member of the Scientific Advisory Board of the International Institute for Subjective Experience and Research (ISER) at the MSH Medical School Hamburg. Since December 2016 Deputy Chairman of the Württembergischer Kunstverein Stuttgart. Since June 2017 Member of the Board of Trustees of the Adolf Hölzel Foundation, Stuttgart. Website: <http://www.hdhuber.net/>

Notes

1. Consultative Committee for Space Data Systems 2001.
<https://public.ccsds.org/default.aspx>; last access 05.12.2019
2. Funk, Stefan E. (2010): *Digitale Objekte und Formate*. In: Neuroth, H./Oßwald, R. [u.a.] (Hg.): nestor Handbuch. Eine kleine Enzyklopädie der digitalen Langzeitarchivierung. Version 2.3., 2010, ch. 7:3. http://nestor.sub.uni-goettingen.de/handbuch/artikel/nestor_handbuch_artikel_445.pdf, last access 05.12.2019.
3. Friedrich Waidacher: *Handbuch der Allgemeinen Museologie*. 3., unver. Aufl. Wien [u.a.]: Böhlau Verlag 1999, 147.
4. Waidacher 1999, 158.
5. Waidacher 1999, 32.
6. Kathrin Janis: *Restaurierungsethik im Kontext von Wissenschaft und Praxis*. München: Martin Meidenbauer Verlagsbuchhandlung 2005. See also the Nara Document On Authenticity. Published in: Larsen, Knut Einar (ed.): *Nara Conference on Authenticity in relation to the World Heritage Convention*, Nara (Japan), 1. -06.11.1994, Proceedings, Trondheim 1995, p. XXI-XXXI, esp. §9.
7. Waidacher 1999, 35.
8. Friedrich Waidacher: *Museologie – knapp gefasst*. Wien [a.o.]: Böhlau Verlag 2005, ch. 4.
9. Winfried Nerdinger (Hg.): *Geschichte der Rekonstruktion – Konstruktion der Geschichte*. München: Prestel, 2010.
10. Huth, Karsten: Computermuseum. In: Neuroth, H./Oßwald, R. [u.a.] (Hg.): nestor Handbuch. Eine kleine Enzyklopädie der digitalen Langzeitarchivierung. Version 2.3., 2010, ch. 8:25 http://nestor.sub.uni-goettingen.de/handbuch/artikel/nestor_handbuch_artikel_451.pdf, last access: 05.12.2019.
11. Ullrich, Dagmar: Bitstream Preservation. In: Neuroth, H./Oßwald, R. [u.a.] (Hg.): nestor Handbuch. Eine kleine Enzyklopädie der digitalen Langzeitarchivierung. Version 2.3., 2010, ch. 8:3. http://nestor.sub.uni-goettingen.de/handbuch/artikel/nestor_handbuch_artikel_402.pdf, last access: 05.12.2019.
12. Ullrich (2010), ch. 8:5.
13. Ullrich (2010), ch. 8:6.
14. Funk (2010), ch. 8:16
15. <http://variablemedia.net/e/index.html> See under ->terms -> strategies. Last access 05.12.2019.
16. The Filmmaker database with the list of questions can be found at <http://variablemediaquestionnaire.net/>, accessed on 14.10.2011.
17. Waidacher 2005, 11.
18. Waidacher 2005, 34.
19. Waidacher 2005, 15.



Montage and Assemblage: an Aesthetic Shock

Dominique Berthet

Abstract

The notions of montage and assemblage applied to the field of art can appropriately be applied to collage. At the beginning of the twentieth century, cubism, Italian and Russian futurism, dadaism, and surrealism, each with distinct aesthetic objectives, practiced collage; this was in order, for example, to deconstruct object and space or for political and ideological purposes, with the aim of impacting social reality. The practice of collage 'exploded' the classical aesthetic based on *mimesis*. In an unpredictable diversity of practices, collage allows for the creation of gaps, giving access to a multitude of possibilities and opening on unsuspected artistic horizons. Collages, montages, and assemblages have been so widely represented in the artistic practices of the twentieth century that they appear inseparable from artistic modernity. However, these practices are not limited to Western art - they can also be observed in other cultures, with different objectives. As contemporary art can be seen as an extension and deepening of modern art and as its realization¹, the practices of the twentieth century were prolonged into, and developed at, the beginning of the twenty-first century, even as other concepts were introduced and new practices emerged.

Montage and Cinema



Excerpts from Glumov's Diary is Eisenstein's first film, 1923. Screenshot by Christiane Wagner.
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Montage (editing), in general, is associated with cinema. Anne Souriau indicates that in cinema, montage is, "a material operation [allowing one] to adjust together strips made separately, to form the final band [...]. Montage is essential to the cinematographic aesthetic, since it is this that regulates the sequences, the effects determined by the passage from one scene to another, the rhythms, and the correspondences between image and sound."² Montage is, therefore, the organizing of different shots to form sequences. Dominique Chateau, in '*Contribution à l'histoire du concept de montage*' (*Contribution to the History of the Concept of Montage*)³ tried to show how montage (editing) has transitioned from concept to concept; in the writings of young Soviet filmmakers, who themselves produced a theory of cinema, montage (editing) becomes one of the essential concepts of film theory. The book reminds us that it is Lev Kuleshov to whom we owe, from around 1917, revival of the French word *montage*; this he appropriates and transforms into a concept (the concept of film montage), that is to say, that it loads of rich theoretical content.

The montage praised by Chateau is related to cinema both in technique and concept. It is defined by Kuleshov in 1918, in his article 'The art of photography,' as the thing that characterizes cinema⁴. In 1917, Kuleshov presented montage in the following way: "The essence of cinematographic art [...] rests entirely on the composition. To make a film, the director must combine different filmed, unordered, and unrelated fragments into a whole and juxtapose the different moments in the most advantageous, the most coherent and the best rhythmic order [...]"⁵. Montage thus comes from the collage, according to a certain order, of filmed fragments. The sequence of these fragments contributes to producing

an artistic impression. What is interesting to observe is that behind this reflection on montage and assemblage of fragments, there is a political approach, a militant slogan. For Kuleshov, the function of cinema was to "break through the gaps."⁶ There is in *montage court* (short editing) a search for narrative efficiency. With montage, everything becomes possible.

Dominique Chateau (2019) explains that by the method of montage, we can create a semblance of heterogeneous elements of reality; the efficiency of this mode of composing is the fact that the spectator "sees what the montage suggests."⁷ Montage is thus strategic. Fragments are not elements derived from a kind of database, but must be created from the perspective of their assemblage. This is equivalent to saying: "the filming of fragments anticipates the whole [...]."⁸ Cinema is not reality but produces the illusion of reality. It creates a simulation of reality. Effective montage gives the impression that what in reality is feasible and achievable is improbable and impracticable: "What characterizes cinema is not the restitution of reality, but its production,"⁹ states Dominique Chateau (2019). The montage, as presented by Kuleshov, makes it possible to assemble "parallel and simultaneous actions"¹⁰ and to interweave them, to create what exists nowhere else. In the words of Dominique Chateau, Kuleshov, through montage, is a "creator of the world".¹¹ It should be noted that the contradictory debates between Kuleshov, Pudovkin, Vertov, and Eisenstein on the subject of montage must be seen in the context in which they were born - that is, the Soviet Union of 1917-1940. Montage assumes the selection of fragments, their combination (approximation), and the construction of a set. It makes it possible to join what is disjointed, to build a whole from disparate fragments. Thus, it supposes the discontinuity of elements and aims at an internal continuity. Montage reduces gaps and produces rhythms. It breaks with the mere recording of raw reality.



Excerpts from *Glumov's Diary* is Eisenstein's first film, 1923. Screenshot by Christiane Wagner. Creative Commons Attribution license (reuse allowed).



Excerpts from *Glumov's Diary* is Eisenstein's first film, 1923. Screenshot by Christiane Wagner. Creative Commons Attribution license (reuse allowed).

Dziga Vertov, an author of a documentary, and an experimental, militant form of cinema sees the camera as a "cine-eye" (*Kino-Eye*) - more sophisticated than the human eye, that requires emancipation from the habit of servile reproduction: "Now we release the camera and run it in the opposite direction, away from the copy,"¹² he writes. It is for him to create a "new perception of the world. This is why I am deciphering, in a new way, a world that is unknown to you."¹³ For Vertov, cinema was an instrument of knowledge. After his report and documentary, he embarked on creating a poetic form of cinema, moving from the idea of randomness through a montage of film pieces into control of the image sequence, developing a theory of intervals in an analogy with music. The intervals are presented as "passages from one movement to another" that "lead to action as kinetic outcome;"¹⁴ in addition to movement, the intervals are also concerned with time and space, as well as "all kinds of visual parameters."¹⁵

Dominique Chateau indicates that the notion of the interval "is at the same time gap, correlation, and transition, that is to say, work on images which, based on their fragmentation, seeks to establish between them semantic-visual links inscribed in the overall dynamics of the work."¹⁶ In what Vertov calls the "battle of montage," this is about playing on the gap between two images to create a link between them.¹⁷ For him, it is the binding of fragments. Montage is an addition, an aggregation of fragments in response to particular modalities and objectives. The various theoretical differences between Soviet filmmakers all indicate the aim of reception, on the part of the spectator, of a particular purpose and

effectiveness in the goal. Eisenstein, speaking of the "montage of attractions,"¹⁸ declared: "You must not create a work; you must mount it with ready-made pieces, like a machine. Montage is a beautiful word: it means putting together pieces that are there ready"¹⁹. However, this montage of pieces must be made according to a certain method and a certain objective, according to the filmmakers. Thus, we find ourselves at the heart of the debate on the form-content relationship. Montage, in general, is the active appropriation of fragments, in combinations producing dynamic oppositions, stimulating contrasts, and fertile disjunctions. Sometimes unexpected links are created between heterogeneous elements that were not intended to meet. Contacts are formed, and new relationships occur. Montage makes it possible to organize chaos, to invent new relationships, to shape "augmented realities" - to increase. From a technical point of view, the linking of two or more elements, either of the same nature or alien to each other, produces effects not present in the original items. Eisenstein said of montage that it is an "idea born of the clash between two independent fragments."²⁰ In this space of shocks and tensions, filmmakers can create anachronistic links. Montage allows approximations, joinings, connections. This process opens on a multiplicity of possibilities and an infinity of results.



Excerpts from Vertov's *Three Songs of Lenin* (1934).
Screenshot by Christiane Wagner. Public domain.



Excerpt from Vertov's *Three Songs of Lenin* (1934).
Screenshot by Christiane Wagner. Public domain.

Montage: an aesthetic and political challenge

If montage is in general associated with cinema, it naturally concerns other fields such as painting, collage, photomontage, installation, happenings, theater, dance, poetry, literature, music, and so on. In the past, the question of montage has given rise to quarrels between authors in the Marxist sphere, such as Georg Lukács, Bertolt Brecht, Walter Benjamin, Ernst Bloch, Theodor W. Adorno, and Herbert Marcuse. In the twentieth century, Jean-Marc Lachaud, in 'Collages, montages, assemblages'²¹, analyzed these divergent conceptions. Lukács, for example, considers montage as 'foreign' fragments, "torn from their context,"²² assembled together. In his opinion, it is a technical subterfuge inadequate to the task of showing objective reality." Avant-garde works are, in his eyes, incapable of representing real social relations. His taste for tradition and deep sense of the futility of the artistic avant-garde show his inability to grasp the importance and value of new technology in undermining the foundations of capitalist society. He even considers these novelties as an expression of literary and artistic decadence.

While Lukács condemns innovative works as being antirealist, Brecht, in contrast, defends innovative practices because they "favor the transformations of the social function of art that the triumphant revolution will concretize,"²³ writes Jean-Marc Lachaud. Brecht's position on realism is radically different from that of Lukács. The dramaturge thinks that realism must be "cleaned up before use, as old notions, many of which have already been used and abused for too many and diverse purposes."²⁴ Brecht favored a theatrical novelty, and new form, considering the installation a challenge to the idea of a harmonious and closed form. The old forms are no longer of interest because they are no longer effective. We must innovate and experiment with new forms.

Adorno, in 'Aesthetic Theory', and especially in the pages concerning "the crisis of the senses," also deals with the issue of montage. First, it is worth recalling an advanced idea at the beginning of the book, that "If art is opposed to empirical reality by the time of the art form - and the mediation of form and content cannot be understood without their distinction - this mediation must be [...] sought in the fact that the aesthetic form is sedimented content."²⁵ This idea is fundamental, notably in being opposed to other Marxist positions, in which the form must be at the service of the idea, the (revolutionary) content. Here, in contrast, the process of formatting asserts itself as an opposition to established reality, and

art, by its very existence, is critical *vis-à-vis* existing reality, manifesting itself as a resistance to, and negation of, this reality. It is the manifestation of freedom. Adorno saw in less realistic works (less realistic socialist works), or those less accessible and less explicit, the mark of the most effective critical power. Its enigmatic aspect makes the work irreducible to a closed interpretation; as such, it resists what tries to define it, or to recover it for ideologically integration.

Modernist works show the "signs of dislocation." "Works of art that negate meaning are also necessarily dislocated in their unity," writes Adorno. On the function of montage, he goes on: "... just as it disavows unity by the apparent disparity of the parties, [it] contributes as a formal principle to its restoration."²⁶ Montage is thereby both the disavowal of the unit and the reconstruction of it. Thus, Adorno saw the artist of modernity grappling with a kind of oscillation, between a desire to put in crisis unity and sense, while working for their reconstruction. For the author, even that which stands against the cohesion of meaning nevertheless produces meaning.²⁷ Adorno distinguished "authentic art, which takes care of the crisis of meaning," and the art of "resignation," in which the negation of meaning "adapts to contingencies."²⁸ The author goes on to say: "the principle of montage, as an action directed against organic unity obtained surreptitiously, was based on shock."²⁹ When the shock dulls or disappears, the interest of the montage is neutralized. Adorno thinks of the work of art as a process, as a phenomenon in the making, "essentially concerning the parties at all."³⁰ For him, a work of art is neither "stable" nor "definitive" but "in motion." The parties are not; they are neither inert or dynamic. They are "centers of forces tending to totality."³¹

Montage, Modernity, Assemblage

Anne Souriau defines montage as: "the action of assemblage, or the way in which are assembled, to form a whole, parts first made up separately. [...] In general, and in all fields, a montage is an aesthetic fact, since one is an editor of an overall form and influences the aspects that the different parts adopt to each other's elements."³² Montage, therefore, consists of putting together heterogeneous elements of various origins, to obtain a particular result, employing adapted techniques.

Moreover, as already discussed, montage is based on the shock of fragments, themselves linked to artistic modernity, which is the manifestation. Adorno stated that, "according to its microstructure, all new art should be called montage"³³ insofar as it uses the montage process, Jean-Paul Olive writes: "any modern work can only be conceived if in response to the shock phenomena characteristic of the modern era. To the exploded experience of modernity [...], to this experience of flying, corresponds an art that breaks, and can no longer - and no doubt no longer wants to - resolve to a unified appearance."³⁴

Assemblage, for its part, supposes a non-homogeneity of the work, an interruption of the spatial continuity. It involves the juxtaposition, the superposition, the simultaneity of various structures and materials. It also affirms a break with the illusionist conception of art. It disrupts traditional artistic codes, ignores conventions, and produces displacements, disturbances, the unpredictable, the unexpected, the strange. It is in total rupture with the partitioning intrinsic to classical aesthetics. It is a work of construction that passes through choices and which refers to the intention of the artist who relates heterogeneous elements. It is about creating relationships and encounters, producing echoes, shocks, tensions. The artwork is constructed as and when dialogue is established between the fragments.

Through assemblage, the artist explores areas of coexistence and encounter, organizing the heteroclite, arranging the varied, bringing together fragments to produce connections. In short, it is part of a poetics of encounter and relationship. The artist is thus reshaping the boundaries of art by creating new geographies. In these fortuitous, unexpected encounters, in these outbursts of unexpectedness, in these impulses that invent a whole, the gaps are reduced and ever new universes arise. Assemblage allows for displacements, permanent changes, combinations ever fruitful for the artist and unpredictable for the spectator. The assemblage of the various gives a place to open works, which also belong to an aesthetic of meeting. Through montage and assemblage, art breaks with the obligation to represent, to represent reality. In 'Still Life with Chair Caning' (1912), Pablo Picasso revealed that the artist no longer represents the real. However, artists present art through a collage of oilcloth pieces in painting compositions and a piece of rope forming a kind of frame. The cubist collages, Dadaist and Surrealist photomontages, assemblies (combined paintings) of Rauschenberg, Tinguely, and many others, offer diversions, deviations. These gaps and ruptures open up new horizons to new possibilities, new realities.

The Fragment

It is naturally impossible to speak of montage and assemblage without evoking the mounted and assembled elements that are the fragments. Montage and assemblage use various fragments, pieces of the world, of reality, that the artist then combines, associates, and organizes to evoke surprise, astonishment, the unknown. The purpose of these processes is to bring out the unusual, the unexpected. These combined fragments are, in the eyes of the defenders of classical aesthetics, a symbol of impurity, regrettable intrusion, discrepancy, and dislocation; they are therefore the antithesis of harmony, unity, coherence, and everything they defend. The assembly of fragments is thus the mark of refusal and emancipation *vis-à-vis* representation, *déjà-vu*, of the established order.

The fragment appeals to a particular thought - that of the diverse, the exploded, of discontinuity, loss, tension. It announces the irruption of the unexpected, of uncertainty, of instability. It is a rebellion against totality, harmony, unity. The fragment is the result of dislocation, bursting, fracture, tearing, breaking, cutting. It symbolizes violence. It is a break with continuity, the disappearance of everything, the defection of coherence and annihilation of a whole. The separation of the fragment leads to the destruction of the totality. It is indicative of a crisis of unity. The fragment also suggests the absence - what is missing. It is what is missing that gives rise to the sense of no more unity; hence the feeling of incompleteness. It refers to incompleteness, but the fragment is fundamentally ambiguous. In its incompleteness, it can be self-sufficient and establish itself as a homogeneous whole. This is how the German Romantics of the School of Jena envisioned seeing the fragment as a totality. As Alain Brunn says, the fragment "is both unfinished completeness and finished incompleteness."³⁵ The fragment is not inert or frozen. In work, articulated with other fragments, it imposes itself by its dynamism. It is also the germ of work to come. It has its energy detached. It throbs with internal dynamism. Besides, fragments interact together in their implementation and create a dynamic in their relationship with other elements.

In the space of the work, the fragments are put in tension, create echoes, friction, articulations, dialogues. The gathering and organization of fragments that pass through the work of montage and assemblage allow for constitution of a new whole. The fragment no longer appears as a reminder of a lost unit, as the debris of the world, as a residue of the real, but as part of a new whole. The association of heterogeneous fragments contributes to the development of a homogeneous whole. Fragments appear as moments before possible encounters. In the context

of the work, they are at once lonely and in solidarity. Assembled, they have a strength, a form, producing meaning. Brutal connections, tensions, telescoping between fragments, surprise the viewer. These assemblages can confuse, disturb, disrupt, destabilize. The assemblage produces transgressions. Montage and assemblage are at the origin of an art form which reveals other realities, ferments of possible. Jean-Marc Lachaud brings together these practices of collagists, "montagists," and "assemblagists" under the term "aesthetics of non-coherence", having "to do with a concrete utopia, thus with the prospect of emancipation (individual and collective)." ³⁶

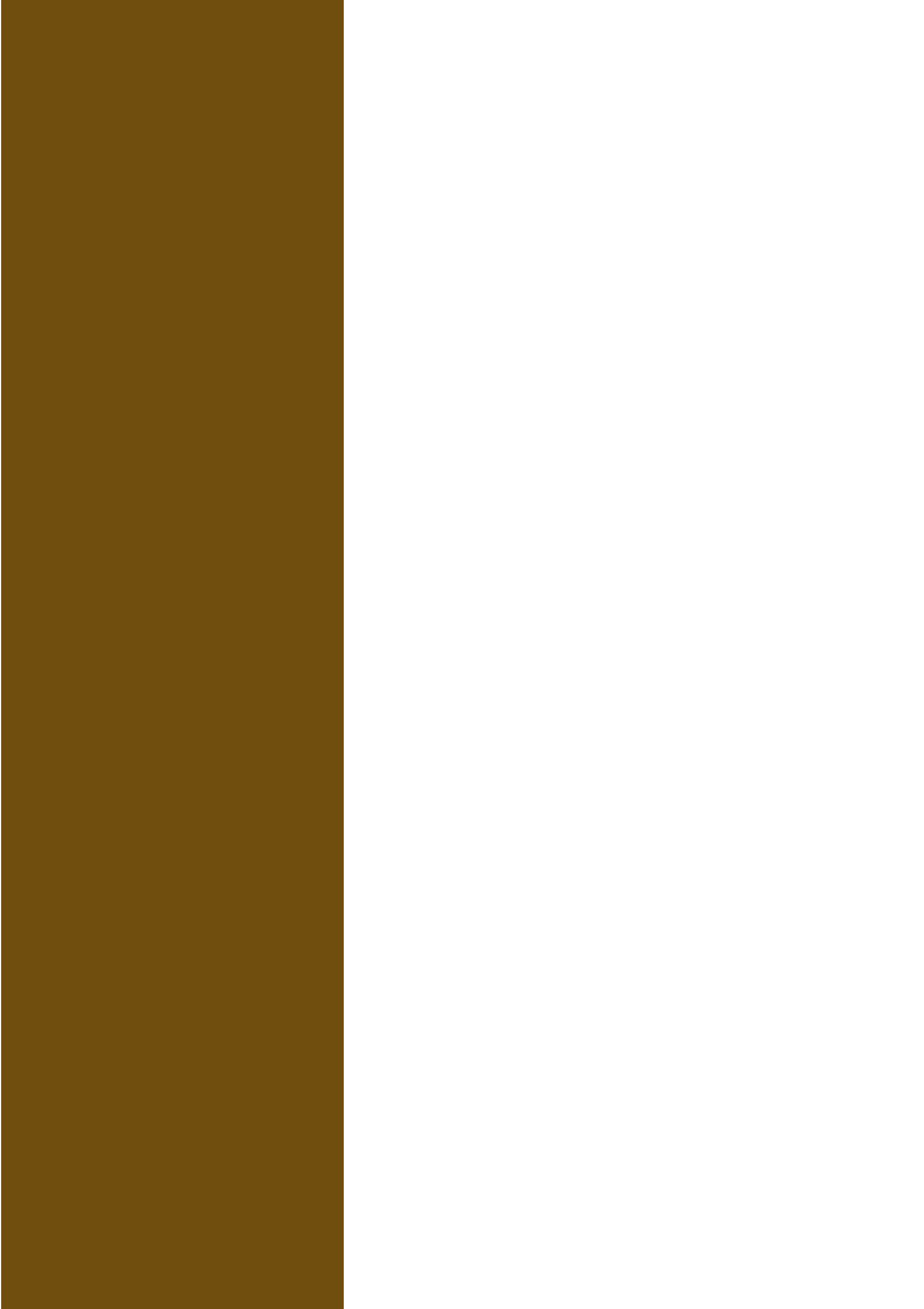
This aesthetics of non-coherence, which is also an aesthetic of the encounter, is part of what Adorno called a "frightening process" of the arts. In July 1966, he began his speech at the Berlin Academy of Arts with the following words: "In the most recent evolution, the boundaries between artistic genres flow into each other, or more precisely: their lines of demarcation are frightening."³⁷ The process that Adorno was already observing in cubists was seen to develop throughout the twentieth century. In the twenty-first century, contemporary art has been characterized by a limitless hybridization of artistic practices, with extra-artistic domains as varied and unusual as genetics, robotics, and computer science, offering works that question, sometimes fascinate or discourage, but do not leave indifferent.

Author Biography

Dominique Berthet is a University Professor, he teaches aesthetics and art criticism at the University of the French Antilles (UA). Founder and head of CEREAP (Center for Studies and Research in Aesthetic and Plastic Arts). Founder and director of the magazine *Recherches en Esthétique* (Research in Aesthetics). Member of CRILLASH (Center for Interdisciplinary Research in Literature, Languages, Arts, and Humanities, EA 4095). Associate Researcher at ACTE Institute (Université Paris 1 Panthéon-Sorbonne). Art critic, member of AICA-France (International Association of Art Critics). Exhibition curator. His research focuses on contemporary and comparative aesthetics, contemporary art, Caribbean art, and Surrealism. He has directed more than 50 volumes, published more than 110 articles and ten books among which: *Hélénor*, "Lieux de peinture" (Monograph), (preface Édouard Glissant), HC Éditions, 2006; *André Breton, l'éloge de la rencontre. Antilles, Amérique, Océanie*, HC Éditions, 2008; *Ernest Breleur* (Monograph), HC Éditions, 2008; *Pour une critique d'art engagée*, L'Harmattan, 2013.

Notes

1. Catherine Millet in French: "L'art [...] est devenu contemporain quand il a commencé, d'une certaine façon à réaliser le projet moderne au sens où l'entendait Baudelaire" and "J'ai suggéré d'entrée que l'art contemporain était une réalisation de la modernité. Plus exactement, il réalise le programme de la modernité", in *"L'art contemporain. Histoire et géographie"* (Paris, Flammarion, coll. "Champs arts" 2006), 32 and 159.
2. Anne Souriau (dir.), in Étienne Souriau, *"Vocabulaire d'esthétique"* (Paris, PUF, coll. Quadrige, 1999), 1025.
3. Dominique Chateau, *Contribution à l'histoire du concept de montage. Koulékhov, Poudovkine, Vertov et Eisenstein* (Paris, L'Harmattan, coll. Champs visuels, 2019).
4. In French: "Le mot "montage" a été utilisé ici depuis les premiers jours de l'existence du cinéma russe. On ne sait pas qui l'a prononcé le premier – évidemment un des opérateurs français qui vinrent en Russie. Mais c'est moi qui ai défini le "montage" comme une propriété spécifique du cinéma dans mes articles et dans le livre *L'Art du cinéma*", interview by Lev Kuleshov with "Film Culture au printemps 1967, in Chateau, *Contribution à l'histoire du concept de montage*, 29.
5. Kuleshov, in French: "L'essence de l'art cinématographique [...] repose entièrement sur la composition. Pour faire un film, le réalisateur doit combiner différents fragments filmés, non ordonnés et non reliés en un tout, et juxtaposer les différents moments dans l'ordre le plus avantageux, le plus cohérent et le mieux rythmé [...]", in Chateau, *Contribution à l'histoire du concept de montage*, 30.
6. Kuleshov, in French: "percer une brèche dans les esprits", in Chateau, *Contribution à l'histoire du concept de montage*, 41.
7. Chateau, *Contribution à l'histoire du concept de montage*, 53.
8. Chateau, *Contribution à l'histoire du concept de montage*, 55.
9. Chateau, *Contribution à l'histoire du concept de montage*, 72.
10. Kuleshov in Chateau, *Contribution à l'histoire du concept de montage*, 42.
11. Chateau, *Contribution à l'histoire du concept de montage*, 22.
12. Dziga Vertov in Chateau, *Contribution à l'histoire du concept de montage*, 83.
13. Chateau, *Contribution à l'histoire du concept de montage*, 84.
14. Vertov in Chateau, *Contribution à l'histoire du concept de montage*, 94.
15. Vertov in Chateau, *Contribution à l'histoire du concept de montage*, 95.
16. Chateau, *Contribution à l'histoire du concept de montage*, 97.
17. In French "L'intervalle, c'est l'utilisation de l'écart sur le plan du référent entre deux images pour constituer un lien sémantico-visuel entre elles sur la base d'un ou de plusieurs paramètres visuels et en vue de participer à la dynamique du discours qu'ils actualisent ponctuellement", Chateau, *Contribution à l'histoire du concept de montage*, 113-114.
18. Sergueï Mikhaïlovitch Eisenstein in Chateau, *Contribution à l'histoire du concept de montage*, 118.
19. Eisenstein in Aumont, *"Montage Eisenstein"* (Paris, Images modernes, 2005), 211.
20. Jacques Aumont and Alain Bergala, *Esthétique du film* (Paris, Nathan, coll. Arts Université, 1990), 60.
21. Jean-Marc Lachaud, *Collages, montages, assemblages au XXe siècle*, vol. 1 L'art du choc ; vol. 2 Le fragment à l'œuvre (Paris, L'Harmattan, 2018).
22. Lukács in Lachaud, *"Collages, montages, assemblages"*, vol. 2, 250.
23. Lachaud, *"Collages, montages, assemblages"*, vol. 2, 258.
24. Bertolt Brecht, "Popularité et réalisme." In *Écrits sur la littérature et l'art 2*, trans. A. Gisselbrecht (Paris, L'Arche, 1970), 116.
25. Theodor W. Adorno, *Théorie esthétique*, trans. Marc Jimenez (Paris, Klincksieck, 1974), 14.
26. Adorno, *Théorie esthétique*, 207.
27. In French: "[...] il est impossible de penser une œuvre d'art qui, tout en intégrant en soi l'hétérogène et en se tournant contre la cohésion propre de son sens, ne produise pas malgré tout du sens." Theodor W. Adorno, *L'art et les arts*, trans. Jean Lauxerois (Paris, Desclée de Brouwer, coll. Arts et esthétique, 2002), 71.
28. Adorno, *Théorie esthétique*, 206.
29. Adorno, *Théorie esthétique*, 208.
30. Adorno, *Théorie esthétique*, 237.
31. Adorno, *Théorie esthétique*, 237.
32. Anne Souriau, *"Vocabulaire d'esthétique"*, 1025.
33. Adorno, *Théorie esthétique*, 208.
34. Jean-Paul Olive, "Fragments épars, fragments dynamiques", in Amey and Olive (dir.), *"Fragment, montage-démontage, collage-décollage, la défection de l'œuvre ?"*, coll. Arts 8 (Paris, L'Harmattan, 2004), 11.
35. Alain Brunn, "Fragment", *"Dictionnaire des notions"* (Paris, Encyclopædia Universalis, 2005), 500.
36. Lachaud, *Collages, montages, assemblages*, vol. 2, 339.
37. Adorno, *L'art et les arts*, 43.



To See the Cinema: Human – Sight – Reality

Alina Temliakova

Abstract

Cinema today is similar to the process of immersing yourself in another reality. You can often find comparisons with a diving, and a kind of contact with the visualized space of the imaginary. The position of human in the process of film viewing has changed today. Now the viewer is turning into a subject who has some special skills of the film literacy, media literacy, and for orientation in the digital dimension of the virtual space of modern life. A person watches a movie, it enriches his social experience, he can see and evaluate those events from the distant past, or events, which were taking place elsewhere on the globe in which the subject could not participate directly. On the other hand, today more than ever, cinematic reality is built into the schemes of thinking, perception, and memory of modern man in the form of structural mental schemes. This fact is paradoxical, but modern human receives its completion with the acquisition of external technical devices for the transmission, recording and storage of information (Iampolski 2012, 67). Now we can conclude that the nature of the human look (view, sight) changes. That is the emergence of visual tactility, when human is viewing 3D images, and our eye feels as if it "touches" the picture in front of it. Humans feel the objects with their eyes, viewers feel the texture of surfaces and substances presented to their view by the filmmaker. We can talk about cinema today as cinematic reality. The totality of the entire digital immensity of the surface of the cinema reality filmed and constructed by the film director, stored in the clouds of some breathing digital invisible matters. There is an act of connecting to this repository, access to film reality, which a person receives with special technical devices (gadgets).

Introduction

The time passes, and the impressions of going to the movies do not change. It is like a feast of the imaginary, flying and daydreaming, a new social and communicative experience. In the essay, we will consider a number of structural and essential changes in the communicative chain of cinema. The cinema complements reality; moreover, it constructs the reality of cinema around a person, and implements the chain of coherence of cinema reality inside a person's consciousness, transforming the space of everyday life.

Today we are witnessing a process of the ever-increasing influence of the media sphere on human life (cinema is a form of media). Moreover, today human appears as a kind of "swimmer", an amphibian man, who constantly needs a kind of "recharging" in the sphere of other reality. Turning to Heidegger, we can say that a person almost completely loses that very "rootedness" (Heidegger 1999, 102-111); the person is setting off for swimming in the Internet space, one of the elements of which is the cinema (cinema reality). Modern cinema is represented by two different aspects of its development in the media space. The first aspect involves changing the way the work is delivered to the perceiver thanks to new means of communication, when the development of the Internet provides the ability to watch any movie at any time and in any place where there is appropriate equipment and access to the Internet. The second aspect is connected with the involvement and coverage of all the new sensory organs of the viewer, up to the sense of touch, smell, and the recreation of the complete illusion of the involvement of the latter. New technical capabilities (a consequence of the development of 3D - 5D technologies) allow us to design and develop new spaces. Thus, the traditional nature of cinema, which was associated with the use of visual and audio capabilities, is changing. However, feature films also do not disappear.

Flicker in a virtual universe (Human)

Today, man is also in a state of losing a strong connection with the world, his consciousness is in constant search of foundations, in search of his self-identification in order to find harmony with the outside world and to realize his place in it. However, the answers to these requests of the era are filled with a ball of unnecessary flicker of "sparkles". There are the luminous screens of gadgets from which you can look at the wi-fi portrait of Mona Lisa, or the *Stealing Beauty* (1996) by Bernardo Bertolucci, while one is passing the metro or waiting for a minibus at the bus stop. However, these instruments do not give answers to the main questions, which disturb the mind, and in principle, it is not capable to give any answer at all. Because, as Jean-Paul Sartre claims, the surreal does not give anything, it can takes only. It takes time, attention, even its place, albeit a ghostly one, in space. It is a place for a phantom.

There are the senseless shining of all screens of gadgets. This is a universe, which is deeper than *The Matrix* (1999; *The Wachowskis*), a universe of connecting to the dreams of its creators, a virtual galaxy. And the cinema gave impetus to this continuous expansion process. The inception of this process was the point where the scale of the screen has changed dramatically. The viewer from a little man who was watching the large-scale life of the celestials - inhabitants of cinematic reality, turned into a giant who is looking at the "alien" world in his hand; viewer is appropriating this world with his own eye, a world that fits in his jeans pocket.

However, nothing disappears in art, and cinematic reality in all its incarnations will live forever, even if it spends electricity on itself, lights up and sparkles on the monitor screen, reflects on the screen canvas in the cinema. The cinema reality is persisting while the currents pulsate through the vessels of computer networks and the heart of "infected" viewer beats.

Let's go to the movie (Sight)

Today we are observing the specific situation where some filmmakers play with genres, with methods for attracting the viewer, with mechanisms for constructing film reality. As an example, film director Quentin Tarantino in his 9th film *Once Upon a Time in Hollywood* (2019), of course, exceeded, on the one hand, broke all expectations of the audience. Still, Tarantino's deep, complex, sophisticated film is similar in its plot's structure to the simple naive plot of the film *Calendar Girl* (John Whitesell 1993) with Jason Priestley in the title role, where the film director recreates the beginning of the 1960's. The heroes of the film *Calendar Girl* observe the life and death of Merlin Monroe through the fog of eras. Nevertheless, the director of comedy series John Whitesell has not yet guessed and does not dare to redraw the history by means of cinema language in order to create a special magnetic tension in the cinema hall.

Unlike some ordinary films, affecting time travels in their plots, or biographical films (biopic) about movie stars of the past, the film *Once Upon a Time in Hollywood* constructs the space of the past in another way. It is redrawing the history and at the same time, this film is touching the point of its main attraction that it chooses not directly. Gilles Deleuze calls such plots and characters as critical points of intensity (called "bifurcations") (Deleuze 2004, 346). And Tarantino creates an interesting example of the movement of point of bifurcation. He is moving this point to another dimension of coordinates, which concerns with not the history of cinema and biography facts of movie stars, but the construction of film space, the cinema universe of the cinema reality itself, where other laws of the world of cinema reality apply.

The movie *Burning* (Lee Chang-dong 2018) creates a cinematic reality based on the story *Barn burning* by Haruki Murakami, but gradually the story goes towards the metaphysical thriller, where the missing is equivalent to the extinction. And the crossed out zero in the equation $10 + 1 = 11$ turns it into $1 + 1 = 2$. Because the girl who disappears suddenly and mystically became the main semantic point which change the smooth flow of the plot.

And despite the piles of books and magazines and letters and records, the occasional pencil here or sweater there, the place didn't seem particularly dirty.

Barn burning (Murakami 1983).

Lee Chang-dong continues the theme of the disappearance, visibility and invisibility of creatures in real life (for example, the invisible cat of the heroine; and the girl's ability to clean and eat the nonexistent mandarin). Nevertheless, the hero becomes that constant, who seeks stability and constancy of the world order around him, so he begins to collect some facts about the missing girl and looks for her. He also avenges the alleged guilty for her loss. In the film, the city appears as a network of plexuses of streets, a labyrinth that requires a solution. It seems that maze of meetings and strange relationships literally absorbs the heroine of the film.

Olivier Assayas, the film director of the film *Clouds of Sils Maria* (2014) creates the design of the key and magic substance in his film, and it is the mountains. We perceive mountains as a natural element, as a point of no return; the mountains are absorbing the souls, capturing the thoughts of heroes. Clouds is a substance that dictates the plot development line. There are a fascinating beauty and terrifying silence of the mountains of Sils Maria. Moreover, people are as a chess, which try to continue their lines of behavior in a cold haze of clouds. Mountains are the dominant element of nature, which turns out to be the decisive mood in this film.

Contrariwise, *Vox Lux* (Brady Corbet; 2018) is the film in which we see the city only, with all its chaotic internal bundles of wires, along which there are signals of electricity, television, communication, which generates media reality. And media reality is dominating and absorbing all other forms of reality as its elements.

Vox Lux (2018) is an incredible movie. Instead of "sticking together" the film's universe, Brady Corbet splits the screen, events, and some passages of time. According to the announcement of the film, it seems that this is a fantastic film. However, the director shows us the present time as a fantasy. In addition, this is not fiction in the usual sense, with aliens, intergalactic flying and planets. There are a fantastic and abruptness of reality in which we all live. This is the reality, which has completely taken over by the media. And some human actions, or life-like "pressure surges", only disrupt the information flows under these circumstances. The news buzz acts both as a background and as the main component of life. The value of life itself transforms into the value of presenting oneself in the media space. The plot is divided into temporary "fragments": 2000/2001, 2017. We see and accept skyscrapers, tunnels, city sounds, music

sounds on the screen. There is no more any destiny or fate. It is the image constructed in media reality only. Emotions and experiences remain only in the lyrics. Reality is a small piece of space for eating, sleeping, and planning life, which is not covered by cameras. But media reality is the substance that subjugates everything to itself.

Another film *O Grande Circo Místico* (Carlos Diegues; 2018) shows the circus as the physical embodiment of emotion. Circus in this film is the concentration of all emotions and substances: fun, absurdity, danger, fear, shock, sadness. The film shows the physical insides of the circus as an organism, its flesh and blood. His birth, prosperity, and decline. However, the circus has no end. Show must go on. The main point of attraction in this film is the circus itself as a physical space where reality and fantasy intertwine together.

The Joker (Todd Phillips; 2019) performed by Joaquin Phoenix also redraws the space of everyday life with rough stitches. Arthur Fleck in this film is the point of emptiness, a failure in reality; the fact that others do not notice him is the evidence, that this hero is a kind of fluid gap in the system. In this film, there are frames with the movement of the camera through the tunnel, and the and shots that show a pulsating city in which there is a constant transmission of signals by means of media (television). Arthur Fleck, with his corporeality and talent of reincarnation, becomes a moving point that sucks reality into itself as a black hole and rebuilds it according to his own canons.

Movie transformation (Reality)

Modern technologies make it possible to show the process that takes place in the human's imagination more tangible. Film directors are constructing a movie scene by building up art elements on some existing structures of the surrounding material world. By means of modeling digital characters, building elements of the landscape, background and other specific computer operations allow to filmmakers to construct a complete artistic world of motion pictures and make it accessible to a wide mass of viewers.

Digital technologies give rise to a world that is unusual, alien to our eye and perception. In addition, it requires from us both the skills of "seeing" the eye and overcoming the "trauma" of the new visual perception. In 3D films, a new form of "visual tactility" is involved, a special tactile experience and perception of film reality. We can also call this mode the "eye-sensation" of a film frame. This

viewing mode can be studied by using modern 3D films: *Blade Runner 2049* (Villeneuve 2017), *Valerian and the City of a Thousand Planets* (Besson 2017), *Ghost in the Shell* (Sanders 2017). In all of these films, we observe a variety of techniques for building a 3D image. The process begins with the construction of the background, elaboration of the scene and ends with digital characters processing.

We can conclude that digital technologies turn the background into text: the image is built by constructing a new virtual reality and does not need any substantive basis. The actor, extras, environment, background are subjected to digital processing. The development of cinema today is associated with the involvement and coverage of all the new sensory organs of the viewer, up to the point of touch, smell, and with the recreation of the complete illusion of involving the latter. New technical capabilities allow filmmakers to design and develop new virtual spaces. Thus, the traditional nature of cinema is changing, which was previously associated with the use of only visual and audio capabilities of viewers.

The main principle of to the principle of plotting is that viewers cannot guess what awaits them in the next moment. The most paradoxical situations are either in intergalactic spaces or in the underwater world with fantastic monsters. With the help of 3D technologies, it is necessary that as many as possible different textures of objects be on the screen. So in everyday life - all objects are about the same - take any average situation in the apartment, in the room or on the street. Therefore, in order to shoot an exciting 3D movie, it is necessary that there are all states of substances: water (drops), snow (snowflakes), sand (rising by the wind, or footprints in the sand), and glass (breaking), etc. 3D films show a world of controlled chaos that is in a state of constant flow of motion to provide attractiveness to the human eye.

Conclusion

The conclusion of this study is that the cinema absorbs time as a moving and breathing substance and co-changes with it. Visually, this process can be attempted to be expressed by Salvador Dali's picture *The Persistent of Memory* (1931). Since the entire abstract fabric of cinematic reality frames the course of humanity's time, time, which fixes, broadcasts, and reproduces itself in an infinite number of inter-modifications.

Thus, with the help of ever-new inventions, technical innovations, virtual reality, media reality, movie reality, humans are trying to find power over time. Humanity is inseparable from its history, therefore, the plots of films are often associated with a certain time - the past (historical films), the present or the future, including fantastic films, about possible scenarios for the development of technologies and social changes that follow the constant technological progress. However, the ironic attitude to history, the revision of the results, and the reassessment of possible scenarios of the development of human society are more and more clearly visible (mockumentary). This is also interesting for the film *Blade Runner* (Scott 1982), where the events take place in 2019. When we reached the time of 2019, a new film *Blade Runner 2049* (Villeneuve 2019) was shot. The film turns into a message in a bottle, addressed to humanity. That is, we constantly travel in this frozen time, while the clockwork, similar to a jellyfish, moves smoothly along the sandy shore, gradually overcomes some small obstacles.

Screen time is like a touch of cinematic reality, which is tangible to the eye. And we examined this process with examples from other films. This is a modern film process that demonstrates the work of modern film directors with reality in detail, the history of humankind, the history of cinema, including fiction, the construction of cinema worlds and cinema universes, in other words, cinema reality. Cinema is a flowing time, which is thickened by the cinematic techniques, and expressed through the modern cinema language.



Figure 1: Salvador Dali. *The Persistence of Memory*, 1931.
Screenshot from MoMA official website <https://www.moma.org/collection/works/79018>

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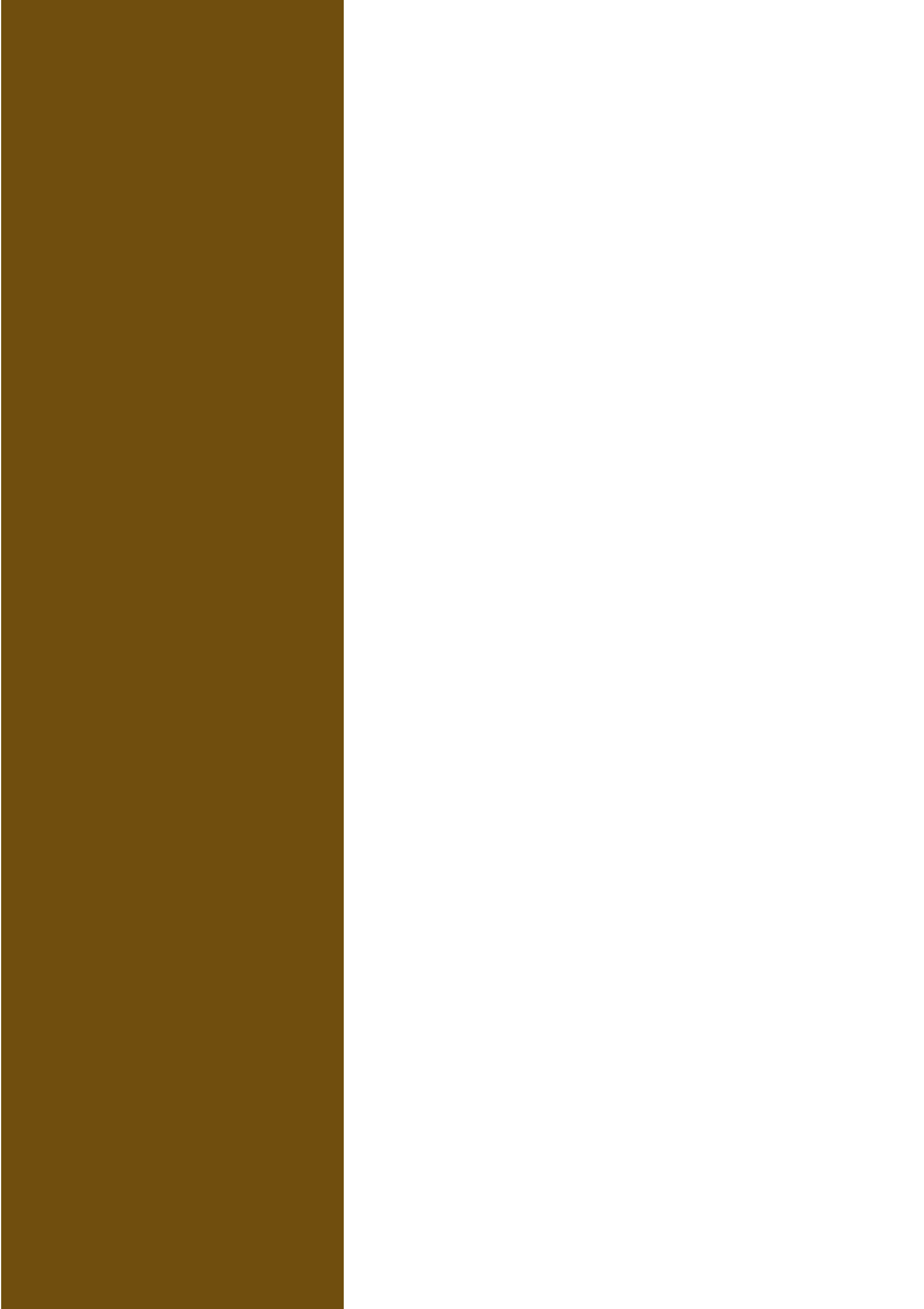
Bibliography

Deleuze, Gilles. *Kino: Kino1. Obraz Dvigheniye; Kino 2. Obraz Vremya* [Cinema: Cinema 1. *The Movement Image*; Cinema 2. *The Time Image*]. Moscow: Ad Marginem, 2004. (in Russian).

Heidegger, Martin. *Razgovor na prosyolochnoy doroge* [Country path conversations]. Moscow: High School, 1991 (in Russian).

Iampolski, Mikhail. *Ekran kak antropologicheskii protez* [Screen as an anthropological prosthesis]. *Novoe literaturnoe obozrenie*, 2012, N° 2 (114), 61-74, Accessed October 20, 2019. <http://www.nlobooks.ru/node/1996>. (in Russian).

Murakami, Haruki. *Barn burning*, 1983. Accessed October 29, 2019. <https://www.goodreads.com/book/show/46748539-barn-burning>.



Transmedia Art of Instauration and Art Discourse: Moving Images and New Technologies in Contemporary Art Spaces

Natasha Marzliak

Abstract

From an increase that had its first hybrid experiments in the 1960s and 1970s, contemporary art crosses borders, opens passages and displaces spaces and temporalities by contaminating itself with resources from various media. In the audiovisual context, it is characterized the deepening of works that involve the mutual contamination of the fields of cinema, video, sound, literature, dance, performance and also new digital technologies in order to inhabit spaces of immersion; built environments that happen as devices here referred to as transmedia art of instauration. In the interrelationship of the media, which works the deconstruction of media purism, there is the leaking of new meanings and thoughts in the reception of the public, which is dipped in situations that invite the former spectator of the "piece of art" and the cinema room to a game of images within an altered space-time, promoting sensory-cognitive powers in the participation that produces plural narratives.

In a dynamic of intense renewal of thoughts, practices and apparatuses, an innovative scenario reveals itself as a fertile ground for critical investigation. In this new context of art, loaded with media environments permeated by new digital technologies, which certainly impact on the process of production and reception, it is necessary to think of a discourse that is within the assumptions of artwork and that, together with it, like the Deleuzian ritornello, throws itself out in order to build new discussions in the context of contemporary art.

Audiovisual Hybridization: Aesthetic and Ethical Aspects in the Composition of a Poetics

Vanguard and Post Vanguard Movements

Avant-garde art, with the first experiments between the late nineteenth and early twentieth centuries, already questioned the representation in the artwork and the figure of the artist as a creative genius and dealt with questions about space, time, narrative and public participation. Beyond the limits of modernism, it continued to grow until it reached the brutal approach of art to life in the mid-1960s. With a strong influence from Duchamp and the behavioral disruptions of their time, some post-avant-garde artists began to develop, discuss more deeply the nature of the art made up to that point and thus presented new propositions, now conceptual. In their project of aesthetic and ethical nature, they appropriated multiple languages from the artistic fields and mixed them; the "white cube" of the galleries, the "dark room" of the cinema, the representation and the mystification of the image and the artist as the holder of genius were rejected. Ambiances, spaces of thought construction in corporeality were produced. In the flow of ideas of the French poststructuralists, whose origin comes from Nietzsche's sensory thinking, the spirit gradually gave way to the body.

Breaking with the art aesthetics that proclaimed the artwork sacredness done by an instinctive and genius artist, Joseph Kosuth, artist and theoretician representative of conceptual art, evokes, in *Art after Philosophy* (1969), the importance of the idea and the artist's thinking on artistic production and its consequences on public participation. Thus, the artist, besides being a proposer, became thinking and communicative of his own production. Thoughts focused on the nature of art and its processes, there is openness to paths that are not tied in traditional divisions such as classical and modern art. On the contrary, a sort of shuffling of ideas and media was promoted in order to create new ways of making and thinking about art; with a strong desire to be the power of renewal. Art produces knowledge and expands into other domains of humanities, such as philosophy, anthropology, sociology, archaeology.

Originally, the art that promotes hybridizations among media of moving images in the construction of environments was conceptualized by artist Dick Higgins in 1966 as intermedia, in order to explain his artworks as well as his colleagues from the Fluxus group. For him, the intermedia was composed of art manifestations that made simultaneously used languages in the art, cinema, video, music and literature fields; and, once united, could no longer be understood separately, as they composed a unique flow of creation in a continuous movement of transmutation. Thus, all media engaged in the formation of artwork are interdependent (despite their particular contribution to the whole), making a dispositif that incorporates powers of freedom and experimentation. Various post-avant-garde art forms from the 1960s and 1970s, such as pop art, minimalism, and conceptualism, attempting to escape the means established by Western culture for making and displaying art managed media hybridizations and rapprochement of art with life (fig. 1).

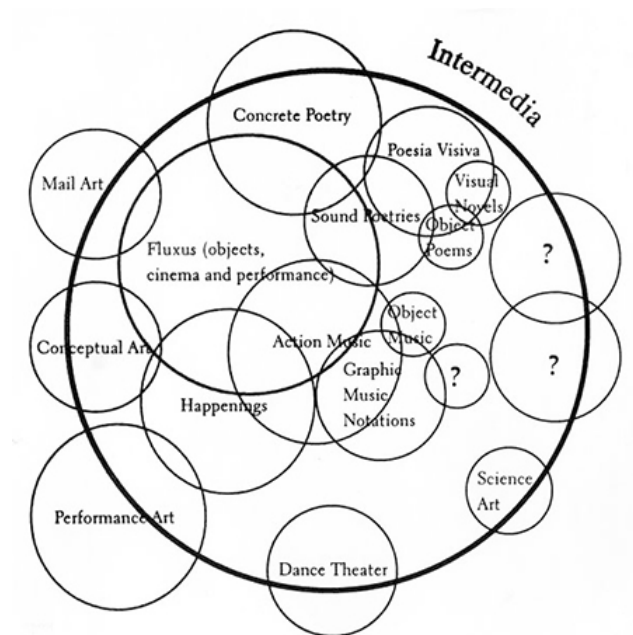


Figure 1: Dick Higgins's Intermedia diagram. Image originally published in Dick Higgins, *A Dialectic of Centuries: Notes Towards a Theory of the New Arts*, Printed Editions, 1978.

With the advent of video in the art field, that took place in the 1960s and, in Brazil, in the 1970s, and its link with experimental cinema, which had been increasing in the independent spaces, many works were created from the source of emerging audiovisual technologies, initiating a process of crossing audiovisual languages: the cinematic experiences created by the Fluxus group, the Fluxfilms (fig. 2); the video art (video surveillance systems, video performance, video sculpture and video installation), whose precursors were artists such as Wolf Vostell, Nam June Paik, Dan Graham, Bruce Nauman, Peter Campus, Vito Acconci, Leticia Parente, among others; the events of Jack Smith; the underground cinema; the expanded cinema; and the appropriation and recycling found footage films. Following international trends, several experiences in the experimental field also succeeded in Brazil, such as cinema novo and cinema marginal, Super-8 practice and video art.

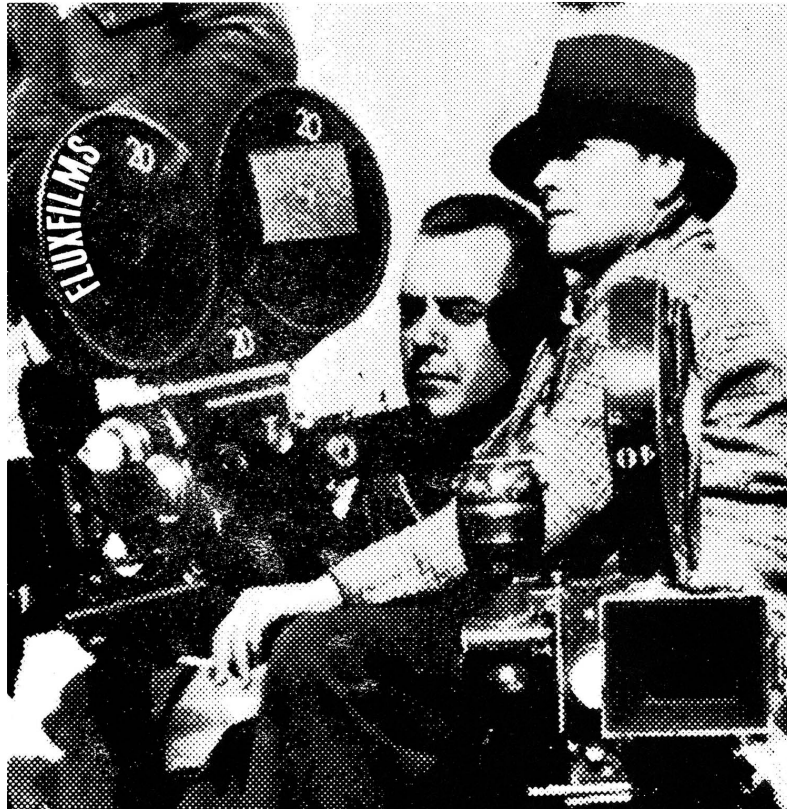


Figure 2: Fluxfilms Label. Designed by George Maciunas. Image published in Fluxus Foundation, Essay: Fluxfilms in Three False Starts by Bruce Jenkins.

How are we today?

After the tornado of art that took place at the beginning of the 20th century, represented mainly by Duchamp, which promoted “misplacing” practices, which continued with post-avant-garde art and then with the production of the 1980s and 1990s, a moment of particularity because of great technological eruption, gradually and over the decades, the ethical and aesthetic questions had been changing. So, how are we today? From the maturation of the experimentations among the media, added to the newest computational technologies, we can observe, since 2000, the emergence of several multifaceted audiovisual works, like the creation of immersion spaces in the media convergence (fig. 3). Video, just like cinema and analogical photography, is absorbed into the digital world. Inside the contemporary’s experimentations, the media are irreversibly embedded in the context of the figural and the virtual, in the meanings of Lyotard and Deleuze, respectively. Among cinema, video and art, productions such as archival cinema, live cinema, immersion cinema were widely named as post-cinemas by Philippe Dubois. Audiovisual environments, such as video installations, were named as videographic spaces by Françoise Parfait.

In the heterogeneity and affluence of media languages, the traditional cinema and plastic arts and their own discourse, which have the will for the absolute truth that conditions, imprisons, excludes, is set aside. In the field of imagery, radicalizing the hybridization between the media and making new technologies go through, promotes spatiotemporal and narrative decentralizations comparable to the rhizomatic structures of Deleuze and Guattari, where “[...] the rhizome refers to a map that must be produced, built, always demountable, connectable, reversible, modifiable, with multiple entrances and exits, with their escape lines” (1996, 32-33, our translation). In Brazil, there is a rich production that follows global art and develops in the embryos of the art, cinema and video, allowing itself to be permeated by new technologies that emerge along the time, such as software and image projection. Thus, in line with worldly inclinations, new works involving art and technology, the so-called new media art, emerge every leap of a second.



Figure 3: *Douglas Gordon: back and forth and forth and back*, installation view at Gagosian West 21st Street, New York Artwork, Studio lost but found/VG Bild-Kunst, Bonn 2017. *Psycho*, 1960, USA. Directed and Produced by Alfred Hitchcock. Distributed by Paramount Pictures, Universal Studios.

Transmedia Art of Instauration

It is in this universe that is the transmedia art of instauration, which has as representative artists, in Brazil, André Parente, Katia Maciel, Eder Santos, Adriana Varella, Lucas Bambozzi, Kika Nicolela, Caetano Dias, Giselle Beiguelman, Fernando Velazquez, Mauricio Dias, and Walter Riedweg. In their aesthetic aspects, their practices build sensory spaces, the time as duration, matter and perception, an effective empowerment of the body in reception and disruption with a unique and linear narrative (fig. 4).



Figure 4: *Suspense* by Katia Maciel. Image published in Galeria Zipper site, 2009.

But after all, if their aesthetic characterizers were already present in avant-garde and post-avant-garde art, what has changed since then? How do artists from transmedia art of instauration update, for example, the intermedia events of the 1970s? By relating avant-garde art to contemporary art, Nicolas Bourriaud, in "Forms of life - a modern art and the invention of itself" (2011b), presents modern design as a hope of reconciliation between art and life. Breaking with the classificatory and totalizing character of the history and aesthetics of art and

examining modern art from the relationship between ethics and aesthetics, he says that the avant-garde proposals, from Baudelaire *flânerie* of the late 19th century, passing of the reverie of the Surrealists in the 1920s, as well as the aimless walking of Land Art and the urban drifts of the situationists in the 1960s and 1970s wanted "to produce [...] everyday life as an artwork" (Bourriaud 2011b, 14, our translation). These are reactions to positivism and the "[...] ideology of the rationalization of labor and the mechanization of society" that are characteristic of the "global process of capital accumulation" (op.cit., p. 70).

Nowadays, problems related to globalization and rationalization have become worse. If, on the one hand, there are communicative facilities, such as social media on the Internet, and mobility, making the artist in Brazil, as well as in other territories away from the Europe-US axis, able to relate more easily to the world. On the other hand, people are more lonely, individualistic, and the market has become even crueler as the economy advances. Relational art is an urgent need. Contemporary art reaches mature and strengthened to the 21st century; ethically hardened. Nowadays, artists create signs, imagery environments whose poetics are inserted in everyday life, in an environment of otherness. The motivation is inter-human relations, being with others, in difference without denial. Bourriaud explains that avant-garde art, guided by a political utopia, operated a revolutionary scheme of aestheticization of the real in order to transform the world. Today, it has been replaced by an "operational realism" of "everyday utopia, flexible" (or "heterotopic") in the art of postproduction (Bourriaud 2011b, 174). Taking the opposite path of avant-garde and post-avant-garde artists who sought to bring everyday life into art, contemporary artists want to bring poetic structures composed of imagetic signs to generate potencies for life, proposing a process of creation that accrue in the act of thinking and finding the other:

The sign makes us to think. The sign is the object of a *rencontre*; but it is precisely the contingency of the *rencontre* that guarantees the necessity of what he makes us think. Thinking is not the result of a mere natural possibility but is the only true creation. Creation is the genesis of thinking in one's own thinking. Now this genesis implies something that violates thought, which takes it out of its natural numbness, its only abstract possibilities (Deleuze 2006, 91, our translation).

Thus, in order to have construction of thoughts, in the interiority of the artwork aesthetics must be articulated with politics in an ethic based on transformation through corporeality and relational character, under penalty of "neutralization of poetics and the fading of politics" (Fabbrini 2012, our translation).

It is in this ethical sense of art approaching with life, aesthetics with politics, that it was founded the contemporary artistic practice. However, in contrast to the avant-garde, the contemporary artist does not seek reconciliation between art and life in the utopian form of the total art (*Gesamtkunstwerk*). Art approaches everyday life and the collective in a way less rooted in social structures and local cultural identities. (Bourriaud 2011b). Assuming a radicant ethical position, artists abolish universalist discourses, both modern and postmodern. In the wander, they create new relationships with the world through cultural negotiations and build a laboratory of otherness. Contemporary artists are no longer related to the modern universalist idea of European artistic avant-garde nor to that of postwar II: the "postmodern relativism" or "postcolonialist", which affirmed the coexistence of cultural identities as exotic differences that should be defended at all costs.

In *The Radicant: For an Aesthetics of Globalization* (2009), Bourriaud says that the radicant artist, like the plant that roots at several points in its extension, and which can be replanted elsewhere, it's the artist who has been in constant mobility, who does not settle into a comfortable territory composed of social and moral structures that would safeguard his identity. The radicant artists are substantially fluid and, by extension of their desire (that is about building), so are their works, because "the time has come for the liquefaction of patterns of dependence and interaction. They are now malleable to a point that past generations have not experienced and could not imagine." (Bauman 2001, 14, our translation). In this journey, artists bring the singularities of their original place, but also become contaminated with the ideas and practices from other places where they've been, insurgent new possible "negotiations", both from the artist with the images as well as the artist with the artistic background and the public.

In Brazil, the effective creation of powers, which has continued to grow to the present day, is fueled by situations of social and cultural mix, anthropophagic actions (swallowing of concepts and practices that come from outside) and living the underground (like in the 1970s, when the "Udigrudi" movement, were composed of several types of art), emerged in the country as the only possible

situation due to the still more expensive audiovisual material in the country, which does not allow technology to be widely used by all. Brazilian artists' creative processes are considered autonomous to what is commonly referred to as "Brazilian art" because they align with the context of contemporary art by contaminating their practices with codes from other cultures and other fields of knowledge. But still, they carry all the historical, political, social and economic content that gave the country particular dynamics. Therefore, the transmedia art of instauration produced today in Brazil (fig. 5 and 6) dialogues with the main trends and practices of global contemporary art and, at the same time, has got important singularities to be considered, once they build a particular symbolic field in its specific context.



Figure 5: *Circuladô* by André Parente. Image published in artist's site, 2010-2014

In the light of Apollo and Dionysus, transmedia art of instauration comprises dispositifs-happenings that abolish dichotomies and sum up rational and technical thinking with a production of knowledge based on corporeality and delirium; this is for the transformation and finding of new forms of existence in this life, right here and now. Without compromising with the fixed structures of the artistic fields and the aesthetics of art prior to postmodernity, these artists expand the possibilities of creation in the development of experimentations with the audiovisual media, also tangent technologies that constantly renew themselves in order to strengthen the conductive threads of contemporary art.

The transmedia art of instauration takes place in heterotopic spaces. Heterotopia is a concept devised by philosopher Michel Foucault to describe places that function under non-hegemonic conditions. These are spaces of otherness, which are both physical and mental, as the moment that someone looks in the mirror. In Jean Cocteau's surrealist film *Le sang d'un poète* (1932), the poet is invited by the statue in his bedroom to dive into this mirror. When he can dive, he finds himself in another place, which is *l'Hôtel des Folies Dramatiques*. Passing through the rooms, he can look through the keyholes to observe the interior scene, making visible the invisibility of his thoughts and feelings. Would those hotel rooms have their own memories, dreams, fantasies? Heterotopic spaces are in opposition to the power relations that aim at the unification of spaces to homogenize and discipline people, such as prisons, schools, and hospices.



Figure 6: *Trópico de Capricórnio* by Kika Nicolela. Image published in artist's site, 2005

These imageries of surrealist films, which seek delirium, the removal of rationalization for the sake of corporeality and the liberation of the body that does not want to be a useful, disciplined organism, are updated in contemporary times in the construction of immersive, dream and fantasy environments by junction of moving images with new audiovisual technologies for the reception of the collective. These are dispositifs of instauration not only in the sense of Nelson Goodman's philosophy of art, when he declares 'when there is art' rather than 'what is art', checking the moment when a regular object ceases to be itself to

become real art, just like when Duchamp reverses the urinal, signs and exposes it as a "piece of art". When he does that, he is guided by an ethic that wishes to face the status of art, legitimizing this "becoming art." In the extension of the term, it is understood the establishment in a "surreal" imaginary field, which implies possible connections between the artist's experimentation and the aesthetic experience of the public. The instauration of transmedia art happens because there is a creation of a heterotopic space, which comes from the gesture of the artist, for the performance of the body of the other one, the body of the public. The word instauration was also used by the artist Tunga to conceptualize the connections between installation and performance and is analyzed by Lisette Lagnado in the article "The Instauration: a concept between installation and performance" (2001).

The corporeality of the collective in the context of a relational art lies in the intertwining of changes in space, time and the relationship of artwork with the public, both cinema and art. Space once represented two-dimensionally by a movie screen or in a painting, expands toward the field of human actions and interactions; time changes due to the assembly and the position and memory of the spectator, now a participant. In classic single-channel cinema, images are concatenated and successive to construct a film whose time is about two hours of linear narrative. In the transmedia environment, the images multiply and present at the same time, implying the notion of imagery simultaneity and dilated time, which make plural narratives reverberate from the collective experience. Meanwhile, the time of passive contemplation takes the form of Bergson time, that consists of duration, the instant lived by the participant. In the interiority of simulacrum time, it's offered to the public not the appreciation of a representation, but an experience in the constitutive field of artwork that transforms the notion of time, which is no longer chronological to become experienced in the course of the proposed space, since "it is at the moment of practicing the act that the spectator simultaneously perceives the meaning of his own action" (Clark 1980, 24, our translation).

New Technologies: A Tool for Changing Reception State

The transmedia art of instauration takes place in the midst of life and, moreover, confronts and reconfigures life, outlining forms that make use of contemporary life technologies, permeated by media and interaction: tv, laptops, iPhone. In the wake of anthropophagy, today's hybrid works are embedded in a digital culture that advances and renews itself all the time:

The artists who are part of it not only appropriate experiences related to technological environments, but also reconfigure them in the form of intertextual dialogues: they transform these environments into unusual poetic propositions. This production is inclined today to break out of specific art-technology environments, swallow external experiences and transform them into new points of view. (Mello 2005, 117, our translation)

In the infinite connections that man and machine can make in the artist's proposition, digital interfaces considerably enhance reception by streamlining the internalization of artwork, offering a fascinating imaginary field, situated between reality and fiction, as in the limit-example when virtual realities are involved.

Of all the hybridizations towards which the numerical inclines (...) the most violent and decisive is the hybridization of subject and machine through the interface. Violent because it projects the subject - both the author of the work and the spectator, the artist and the art amateur - into a new situation, in which he is insistently urged to redefine himself. (Couchot 2003, 271, our translation)

Through the technological interface, there is expansion of meaning, power of enjoyment and redefinition of one's own existence in participation, which can establish deep relationships between images, individuation and the collective. Technologies change the spatiotemporal dimension, offering meaning in a system of relationships that occurs "through negotiation, dialogue, cultural friction, exchange of views" (Bourriaud 2009, 30, our translation), given the urgency of "emancipation from the relational dimension of existence" (op.cit., p. 29) to the detriment of the emancipation of individuals, which was very dear to modernist artists. So, in the flow of new media, new technologies are seen as instruments that impact new ways of thinking and building an art process. The boundaries between art, communication and social life are increasingly blurred, causing changes in the ways of knowing, perceiving and living (fig. 7).

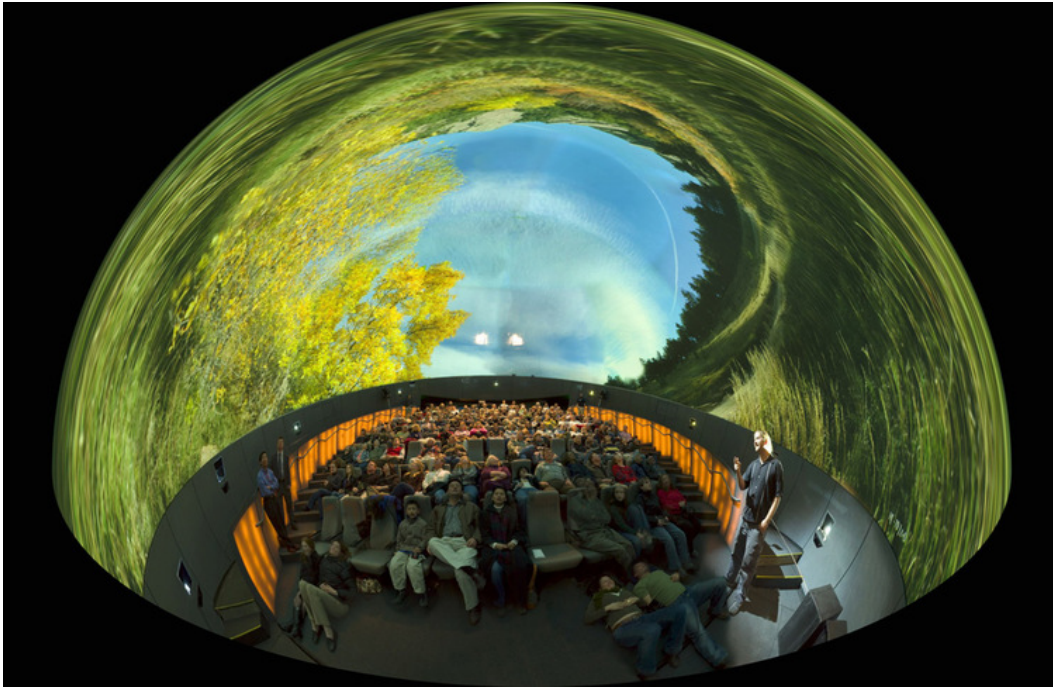


Figure 7: *Aimlessly* by Adriana Varella. Image published in artist's site, 2014.

The Discourse of Art in Contemporary Context

The discourse of art is no longer centered on the valuation of artwork as space and form ruled by the sensible. As Helder Gomes pointed out about Lyotard's thought, "we are far from the traditional aesthetic formulation that seeks in art the privileged occasion of a relationship of sensitive enjoyment or remission to a transcendent sense." We live, according to Rancière, in the age of anti-aesthetic resentment that "readily denounces the" totalitarian "effects of the aesthetic community." (Rancière 2011, 187). Thus, the discourses of philosophy and art should not be totalizing in order to establish truths in a privileged domain of knowledge, which would reduce their possibilities of existence, based on subjectivity. In this context, the effectiveness of aesthetic discourse can only happen if, in the confrontation with the artwork, instead of conditioning it, it promotes relationships, rebates, and resonances with it. Lyotard's postmodernist thinking is non-fetishistic because it does not want to treat the art object as something finished and true, in keeping with the subversive, marginal and Duchampian insinuation discourse of the art universe from the 1960s.

The possibility of a classic aesthetic is questioned. (...) Today's work is subject only to one invariant criterion, the manifestation or not, in itself, of a possible inexperienced without rule, of sensibility or of language. Aesthetics becomes a para-aesthetic, commentary a paralogy, the work a parapoetic (Lyotard 1987, 35, our translation).

The universe of transmedia art of instauration takes place in ritornello.
The Ritornello, as Deleuze and Guattari explain:

We have created at least one very important concept: the ritornello. For me, the ritornello is that common point. In other words, for me, the ritornello is totally linked to the problem of territory, of exit or entry into the territory, that is, the problem of deterritorialization. Do I return to my territory, which I know, or deterritorialize, that is, I leave, leave my territory? (Deleuze and Guattari 1996, 76, our translation).

It is in this sense that the discourse of art must take place. In this eternal thrust into chaos, as if he could also co-author the process of artwork. Christine Mello, realizing Julio Plaza's point of view, says that "the investigative poetics with the new media act on the logic of making art and technology in the form of living and experimental laboratories, in the existing confluences between knowledge production and the artistic production." (2005, 119) A fieldwork should be followed, investigating practices, delving into the diffuse lines that form the heterogeneous, deformed (Mello 2005, 117), figural and therefore chaotic of this doing. However, in its tangle of lines one must draw emphases of dissent. Discourse must, therefore, be a confrontation with contemporary art in its current and urgent form and ethics. It distances itself, however, from what Kant called the "aesthetic community" which it is a false promise, mere expectation of something that will never come to fruition, as if the artists acted within a structure of tastes: a republic of tastes, the "United Tastes," in Bauman's words that, ironically, refers to a capitalist agencement of power for the purpose of manipulating individuals. Far from being situated in "clouds of community" (Bauman 1999, 264), one should seek more dissension to congruences: "The search for the community becomes a great obstacle to its formation. The only consensus with any chance of success is the acceptance of dissent heterogeneity" (Bauman 1999, 264, our translation).

In 1936, along with the advent of the first cinematographic procedures, Walter Benjamin published "The Work of Art at the Time of its Technical Reproducibility", highlighting a break with classical aesthetics, which extolled the beauty, the sublime, the "work of art." transcendental art and the artist as a creative genius, in order to reformulate a new aesthetic that took into account the important consequences that occurred due to reproduction techniques, which affected the work of art. On this premise, like cinema, avant-garde art ends up losing its transcendental aura of "work of art", and there is no longer its sacralization and authenticity as an object that contains a cultural overvaluation. Thirty years later, McLuhan, in *Understanding media: The Extensions of Man* (1964), reflects on the media as a way not to convey a message but also as content. The word "media" was broadly theorized by Marshall McLuhan, who studied their impacts on society's reception of information as new communication technologies "alter the structure of our interests: the things we think about. They change the character of our symbols: the things we think with. Finally, they alter the nature of the community: the terrain on which thoughts develop" (Postman 1993, 25). Mario Costa and Fred Forest created the aesthetics of communication in 1983, whose characteristics are in keeping with some of the aesthetic conceptions of avant-garde and post-avant-garde art, as Annateresa Fabris points out in the preface to Mario Costa's book, *The Technological Sublime* (1995): "futurism, dadaism and Fluxus for the exploration of the event; with conceptual art by the phenomenon of dematerialization; with Klein's pure energy and Fontana's spatialism; with the poetics of the work opened by the interactivity inherent in it; with the overcoming of the traditional artistic circuit proposed by manifestations, such as happenings, environments, etc." (1995, 7).

More recently, from the renewal of transmedia relations, the thought and discourse of aesthetics continues to be shaped by the new times. In this sense, we can highlight the concept of endo-aesthetics, by Claudia Giannetti, born from the advent of new media art, when the dimensions of art, science and technology and the new position of the spectator are brought into play. Also, in thinking about an art aesthetic that considered the current idea of possible networks, flows and connections that new technologies make possible, Priscila Arantes conceptualized inter-aesthetics to address contemporary systems of art. In the article "Everything that is solid melts: from the aesthetics of form to the aesthetics of flow" (2007), the author, starting from a brief history about aesthetics, from its origin in the Greek world with Plato and Aristotle until the moment when the orthodox discourse of aesthetics as transcendence began to be questioned, first because of the hybridization between the media and, later, by the advent of the digital whole, builds its concept of aesthetics based on the aesthetics of flow to reflect on the ways of making art in context of the contemporary super technological. It is the aesthetics of art replaced by the aesthetics of the media.

Transmedia artworks, without language limits, carriers of hybridized media that empower themselves through new technologies, are loaded with relational situations that cross them. In the idea of fluidity - and fruition, transmedia art establishes devices with which it is possible to exchange knowledge in a dialectical movement. The project is constructivist and anti-Hegelian, as Deleuze and Guattari said of their book "A Thousand Plateaus" (1996). Precisely because of the irreducible characteristic of transmedia artwork in the linguistic form, this text aims not to formally categorize and describe, but to present the conditions and existence of its "non-presented", that is, its presence that is, paradoxically, not present in the strict sense of the word. It is not a question of the logical presence that would bring them closer to a supposed reality, but one that is found in the cracks, in the empty space left by the "truth" and the search for meaning. We seek to highlight these audiovisual devices as art of multiplicities. The multiplicities are, in the words of Deleuze and Guattari:

(...) Reality itself, and presupposes no unity, enters no wholeness, nor does it refer to a subject. Subjectivations, totalizations, unifications are, on the contrary, processes that occur and appear in multiplicities. The characteristic principles of multiplicities concern their elements, which are singularities; to their relations, which are becomings; to their events, which are hecceities (that is, individuations without subject); to their space-times, which are spaces and free time; its embodiment, which is the rhizome (as opposed to the tree model); its composition plane, which constitutes planes (zones of continuous intensity); the vectors that cross them, which constitute territories and steps of deterritorialization (1996, 8, our translation).

Conclusion

The transmedia art of instauration has as its characteristics the uprooting (detachment from identity), the desire to, contrary to the formation of aesthetic communities, build knowledge networks, the approach to otherness, being inter-human relational art, and an aesthetics based on formation of a heterotopic and technological fictional imaginary field that brings power to the body in the modification of time. Transmedia artwork breaks with the standard languages of art circuits and is thrown out of a territorialization that wants to centralize, name, categorize: there is in these devices, always in process, the construction of thought and the transformation of existence into corporeality within the collective.

It is in the approach of ethics to aesthetics, of artistic production as a place of experimentation that is directly related to life and thought, of the idea that the artist no longer produces locally, since he is radiant, and that promotes cultural relations. / social in the poetic constructions inserted in the lived daily life - without, however, having a discourse centered on the valuation of the work as the only space and form ruled by the sensible, is that the aesthetics of art must move its discourse. Following the guiding thread of the non-holistic discourse of Lyotard's understanding, the discussion should not condition the work but have its rebounds, questioning the figure of the artist, the position and exposure of the work and its relationship with the public, in a thought that does not it is totalizing and does not intend to found truths in a domain of knowledge protected by an aesthetic community, which is fleeting and falsely promising an existence.

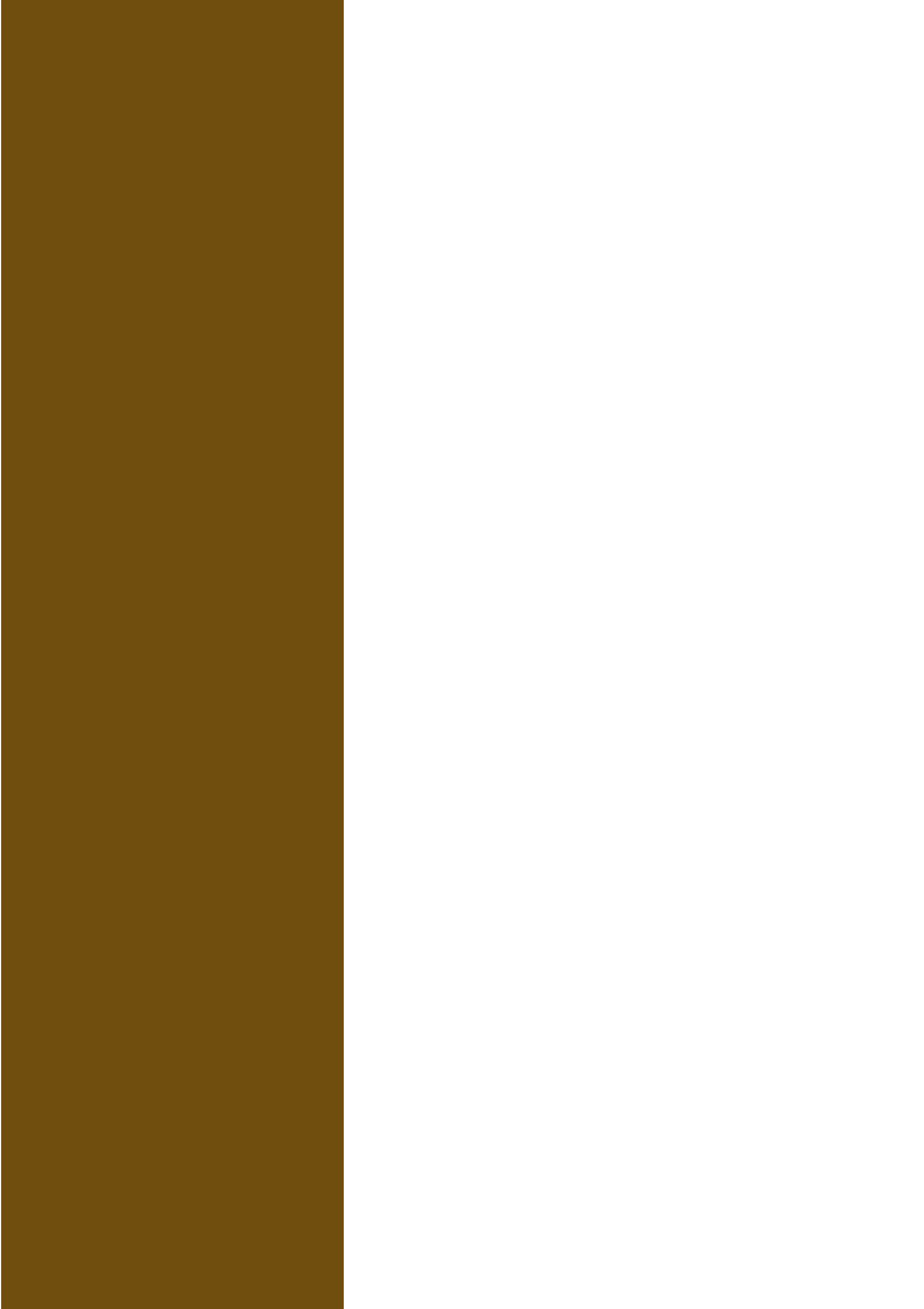
The imposition of rules that would create a rigid model of art and discourse that would compose a theory or aesthetics of art would build boundaries and summarize very rich artistic projects based on experimentation with multiple codes, which are renewed every moment with the desire to live corporeality in the collective. To be satisfied with generalizations of knowledge is not to go deep into analysis and interpretation because within these labyrinthine experiences, as in a multifaceted prism, there are many layers of ideas and practices that deserve to be studied and finally presented to the scientific-artistic community. Progressive investigations, from a nonessentialist, non-idealistic, and non-transcendental aesthetic perspective, would contribute to the lapses of studies on national contemporary transmedia works that still suffer from research gaps.

Author Biography

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Bibliography

- Arantes, Priscila. "Tudo que é sólido, derrete: da estética da forma à estética do fluxo." Work presented to the Working Group "Estética da Comunicação" of XVI Encontro da Compós, UTP, Curitiba, PR, June 2007.
- Bauman, Zygmunt. *Modernidade e Ambivalência*. Translation Marcus Antunes Penchel. Rio de Janeiro: Editora Zahar, 1999.
- _____. *Modernidade líquida*. Rio de Janeiro: Zahar, 2001.
- Benjamin, Walter. *A obra de arte na época de sua reprodutibilidade técnica*. Presentation, translation and notes: Francisco De Ambrosio Pinheiro Machado. Porto Alegre, RS: Zouk, 2012.
- Bourriaud, Nicolas. *Formas de vida: a arte moderna e a invenção de si*. Trans. Dorothée de Bruchard. São Paulo: Martins Fontes, 2011b. (Coleção Todas as Artes)
- _____. *Radicante: por uma estética da globalização*. Trans. Dorothée de Bruchard. São Paulo: Martins Fontes, 2011a. (Coleção Todas as Artes).
- _____. *Estética Relacional*. São Paulo: Martins Fontes, 2009.
- Costa, Mario. *O sublime tecnológico*. São Paulo: Experimento, 1995.
- Couchot, Edmond. *A tecnologia na arte: da fotografia à realidade virtual*. Trans. Sandra Rey. Porto Alegre: Editora da UFRGS, 2003.
- Deleuze, Gilles; Guattari, Félix. *Mil platôs - capitalismo e esquizofrenia*, vol. 3. Trans. Aurélio Guerra Neto et al. — São Paulo: Ed. 34, Vol.3, 1996 (Coleção TRANS)
- Deleuze, Gilles. *Proust e os signos*. Rio de Janeiro: Forense Universitária, 2006.
- Fabbrini, Ricardo Nascimento. *A altermodernidade de Nicolas Bourriaud*. Revista Trans/Form/Ação vol.35 no.3 Marília Sept./Dec. 2012. <http://www.scielo.br/pdf/trans/v35n3/14.pdf>
- Giannetti, Cláudia. *Estética Digital: sintopia da arte, a ciência e a tecnologia*. Belo Horizonte: C/Arte, 2006.
- Higgins, Dick. *Statement on Intermedia*. New York, August 3, 1966. 2016. Publicado em: Wolf Vostell (ed.): *Dé-coll/age (décollage) * 6*, Typos Verlag, Frankfurt - Something Else Press, New York, July 1967. <http://www.artpool.hu/Fluxus/Higgins/intermedia2.html>
- Kosuth, Joseph. *A Arte depois da Filosofia* (1969). Rio de Janeiro: Jorge Zahar Editora Ltda., 2006.
- Lagnado, Lizette. *A instauração: um conceito entre instalação e performance*. In: Basbaum, Ricardo. *Arte contemporânea brasileira*. Rio de Janeiro: Rios Ambiciosos, 2001.
- Liotard, Jean François. *Discours, figure*. Paris: Klincksieck, 1971.
- _____. *A filosofia e a pintura na era da sua experimentação*. In *Crítica*, 2, 1987.
- Mcluhan, Marshall. *Understanding the Media. The Extensions of Man*, Cambridge, Massachusetts, The MIT Press, 1997 [1964].
- Marzliak, Natasha; Paiva, José Eduardo Ribeiro; Beso, Marcelo. *A Arte Transmídia de Instalação nas Décadas de 1960/1970 in Contemporaneidade* (André Parente e Kátia Maciel). Visualidades (UFG), v. 14, 256-283, 2016. <https://www.revistas.ufg.br/VISUAL/article/view/35932>
- Mello, Christiane. *Arte e novas mídias: práticas e contextos no Brasil a partir dos anos 90*. ARS (São Paulo), v. 3, n. 5, 115-132, January 2005.
- Postman, Neil. *Technopoly: la resa della cultura alla tecnologia*. Torino: Bollati Boringhieri, 1993.
- Rancière, Jacques. *A Comunidade Estética*. Trans. André Gracindo e Ivana Grehs. Originally published in Ouellet, P. (2002, org.). *Politique de la parole*. Montréal: Trait d'Union. Revista Poiésis, n.17, 2011, 167-184. http://www.poesis.uff.br/PDF/poesis17/Poesis_17_TRAD_Comunidade.pdf



Framing Emotional Perception: Affect and Effect of Aesthetic Experience, or Extensions of Aesthetic Theory Towards Semiotics

Martina Sauer

for Fay

Abstract

How does an audience receive a work of art? Does the experience only affect the viewer or does it have an effect and thus influence his or her actions? It is the cultural philosopher Ernst Cassirer and his successors in philosophy and developmental psychology as well as in neuroscience to this day who postulate that perception in general and perception of art in particular are not neutral in their origins but alive and thus meaningful. They assume that both are based on analogous principles: in the perception of moving forms and spatial forms in the world and rhythms of forms, colors, light and shadow in art. In practice, this means that perception and its felt effects have an effect on the feelings of the viewer and thus help him to inform himself directly and intensively about the world through art. In contrast to this general epistemological aesthetic theory, which philosophers in particular accept, it is to be shown that this assumption must be redefined not with reference to the world, but with reference to art and design. For the latter, the approach will be extended to a semiotic theory. The background is that in contrast to the world, the designed forms and thus the designed intentions of the artist and designer or his client in relation to the chosen theme have an impact on the viewer and thus on culture and its communicative dynamics.

Introduction

Although the traditional concept of the art denies a direct action relevance to the beholder, this is the accepted assumption for design. Against the background of the objectives of this study the assumed contradiction becomes of interest. Where are the differences between them? It is obvious even Plato and Kant had their difficulties marking the boundaries by noting that the possibilities even of art to evoke pleasant or unpleasant physical feelings (Kant 1991 [1790], 266-273) or, as Plato said, to arouse the 'musical enthusiasm' (Plato, cf. Grassi 1970 [1968], 164) can be used to manipulate the recipient.

What is striking is that to this day there is no answer to why there should be a difference between art and design. The need to find an answer to this question intensified when the first cracks in this assumed difference became visible through the abstract tendencies in the arts manifested from the middle of the 19th century onwards. At the latest since the earliest period of technical reproduction at the beginning of 20th century, and today's image-dominated multi-media use, however, it becomes increasingly difficult to distinguish between art and design.

As Kant and Plato have already indicated, there is only one common aspect of art and design that can clarify this question: For this, neither the judgments about their appearance (beautiful, ugly or comical) nor their attachment to higher ideas or epistemologically correct interpretations (good and true) can be taken into account, but their physically affective and finally also effective and thus action-relevant power. For the latter is the only one that can be brought into direct connection with the object of art and design. Only it is based on the artistic work itself, and not on external judgements acquired in socio-cultural processes, as the philosopher Sabine Döring elaborated in 2010. (Döring 2010, 53-73) Against this background, the initial question is different. Does the viewer experience the affective power of art in a different way than that of design? If not as suggested here, it becomes clear that the affects and effects of art and design depend on the producer of art and design. The importance of the work in question therefore depends on the intentions of the producer. Against this background, the encounter with art and design proves to be a form of communication, in this case through images. This means that those who encounter a work of art and design exclusively with an aesthetic attitude and judge it only by pleasure and displeasure ('lust and unlust') do not realize that it influences us much more and also requires an evaluation in the sense of an approval or rejection of its implicit message. The message of art and design, and thus the recipient's response, becomes important, be it in the decision to buy a product or in the confirmation of an idea. If this assumption can be confirmed, then it is not only sensible, but also necessary due to the social significance, to expand classical aesthetic theory towards semiotics.

In research, this claim has been supported by cultural anthropological studies as well as developmental psychology and neuroscientific approaches since the beginning of the 20th century. The most important of these are the German cultural philosopher and former New-Kantian Ernst Cassirer and the developmental psychologist Heinz Werner and their successors, the American philosopher of process philosophy Susanne Langer and the co-founder of *Bildakt* at the Humboldt University Berlin John Krois, as well as the developmental psychologist Daniel N. Stern and the Italian neuroscientists Vittorio Gallese and Giacomo Rizzolatti. Their results are based on anthropological findings and thus on the hypothesis that the perception of art and perception in general is not objective, but affective-vital. The common basis is that they are based on analogous principles: the sensation of moving forms and spatial forms in the world and rhythms of forms, colors, light and shadow in images. In practice, this means that the universal principles of perception influence both the feelings of the viewer, and logically also the interpretation of all perceived things. On the other hand, however, there is a tendency in the research mentioned above - especially among philosophers - to postulate that in contrast to design, the perception of art has no influence on social interaction and cultural development. In concrete terms, these assumptions assume that art merely reflects the world, and that it is thus an "intensification of reality" that the artist has not changed in the sense of his own views (Cassirer 1944, 221-229, cf. also Langer 1985[1967], 127; Krois 2011[2001]: 251, cf. Sauer 2014, 68-70). In contrast I assert with this paper that all kinds of art - whether art or design - awaken affective-vital 'aesthetic' experiences, and thus all kinds of art have influence on the viewer and thus on society. It is therefore no longer possible to distinguish between high and low art, as was usual. The aim of this essay is therefore to examine the common basis between aesthetics and 'Aisthesis' (perception). It is intended to show that affective-vital aesthetic experience can be seen as the motor of culturally relevant values that influence action-relevant (purchasing decisions as well as socio-political consequences) and aesthetic preferences (socio-culturally shaped).

The thesis of this paper that the 'aesthetic experience influences' (affects and effects) the viewer and his understanding of the subject—as defined by the producer—as well as his thinking and acting, is to be illustrated by the introduction of two examples, one from the field of art and one from the field of design: a painting by the Post-Impressionist Paul Cézanne and a Prada advertisement in a newspaper (Part 1), and by the presentation of parts of research in this field (Part 2).

Two Examples

The French painter Paul Cézanne is regarded as one of the fathers of modern art. His *Montagne Ste. Victoire* at the Kunstmuseum Basel is considered as an important late work painted between 1904-06 (fig. 1).

When describing this image, it soon becomes obvious: by reducing the painting to simple square blots ('taches') the details of the subject are almost undistinguishable. Nevertheless, a strong impression of silent majesty and timelessness is evoked, which is described as a main impression of Cézanne's late landscapes (cf. Imdahl 1963, 154). How is this possible? It is not a picture of a mountain at a lake with a boat. That means, this evaluation can hardly be taken from the motif. However, this meaning becomes, clear and comprehensible by sensing the uniformly distributed blots ('taches') as effective forces or rather

affective stimuli. This impression is communicated to the viewer by following one spot of color ('tache') after the other and being guided by the rhythm of the color distribution into light and dark green tones as well as complementary orange and blue tones, and thus reaching a certain inner rhythm through the evenly arranged rhythmic distribution. It is this active perception of uniformity that brings the viewer into a certain flow of perception or mood, whose characteristic feature is linked with the motif - the few references to a mountain and a broad undefined plane in front of it. A mood that is underlined by the bottom view of the motif above us on the horizon line. Thus, the qualities of one's own experience with the composition are transferred to the rudimentary motif. Virginity ('Unberührtheit') and loneliness, dignity and sublimity are combined with the motif of nature, they convey themselves as an expression of it. (Cf. Sauer, 2014a [1999/2000], 149-155).

So, it is the affective-vital aesthetic experience that stimulates the process of evaluation. Already this effect makes clear that the realization of the motif by Cézanne cannot be declared as a neutral or objective view of the mountain. In contrast, it is the realization of painter's understanding of the motive, that is realized through our perception. So, if we become aware that the image is an interpretation and thus the view of the painter (opinion) about the local mountain, which he presents as a worthy piece of nature, we are enabled to compare his interpretation with our view about it. A positive or critical assessment of the view expressed and thus a discussion of the relationship between man and nature can be triggered by the changed attitude to the work. (Ibid., 172-208)



Figure 1: *Paul Cézanne, Montagne Ste. Victoire, 1904–06, oil on canvas, 59,9 cm x 72,2 cm.*
Kunstmuseum Basel. Photo: in the public domain.

Prada is a well-known Italian luxury fashion house specializing in ready-to-wear leather and fashion accessories, shoes, luggage, perfumes, watches, etc., founded in 1913 in Milano. In spring 2008 it launched a campaign about bags in the German magazine *Süddeutsche Zeitung* with the Russian model Sasha Pivovarova, composed by the American photographer Steven Meisel (fig. 2).



Figure 2: PRADA advertisement, spring collection 2008.

Source: *Süddeutsche Zeitung*, Magazin, 2008.

First of all, when we look at the photo we see an image of the same model with the same hair style and look, but wearing different dresses and handbags, in slightly altered positions in front of an abstract-inspired back-drop. At the bottom of the picture there is noted in a firmly serious manner in capital letters with small dynamic serifs: PRADA. Nevertheless, the appearance of the photo cannot suppress the impression of a certain dissonance between the model(s) and the products being promoted. All life is invested in the products whereas the model looks like a film still or even a doll in duplicated version of the same.

In particular, the attitude and poses of the models irritate us. They look too rigid and lifeless with the same long hair in a braid and identical make-up. Both have the same flawless, shiny, dull complexion. And though both turn their heads in different directions, they both draw an equally identical, blank face expression. The bodies and arms seem to be artificially stopped in their movements. Remarkably, this impression stands in striking contrast to the vibrant, colorful appearance of the clothes and handbags. Vibrant shapes and lines of the handbags and dresses correspond with the lively stylized foliate patterns on the back wall. In summary, here too it is not the recognizable motives, but the abstract formal appearance that exists between the monotonous and the living forms, each of which is associated with different motives that evoke the affective-vital, aesthetic feelings. In this case they are used to play out the meaning of humans and things against each other. They are intended to stimulate the consumer to buy the goods. The hidden statement behind it is to tell potential buyers that when they buy Prada clothes and handbags, they are full of life unlike to their otherwise 'unified and therefore monotonous life or appearance'. Behind it a current discussion becomes recognizable at the beginning of the 2000er years. Among other things, the trigger was the discussion of the first cloned sheep Dolly (1996-2003). Turning to the message of the image, it is clear, while men and women can be sculpted by beauty surgeons or cloned into an ideal but identical look, they do not look that way when wearing these Prada dresses and handbags. Because then it is their 'living forms' that always give people a lively individual look. In the end, it is a humorous message, one with a wink.

Again, it is the affective-vital experience with the forms (shapes, colors, etc.) that evokes the process of evaluation: a vivid contrast of effects between rigidity and liveliness, or uniformity and individuality. In this way, subjects and objects change their meaning: handbags and clothes become individuals or subjects, and humans become reproducible objects. When comparing people with their products based on the photo, the viewer's own opinion on the subject is invited.

State of Research

Both examples are intended to show that no distinction can be made between an aesthetic experience that allows an increased or intensified consideration of the topic and its communicative possibilities. That means, both images reinforce the respective view (topic) and communicate the respective view (opinion) of the producer. Here the double meaning of the term 'view' becomes obvious. The connection of the two, however, has far-reaching theoretical consequences. (cf. with respect to history Sauer 2015) The hitherto dual systems, aesthetic theory and semiotics combine. Both conceptions - be it the ideal that the aesthetic experience shows the essence or 'density' of an issue (cf. Goodman 1976, 252-255; Boehm 1985, 451 and Boehm 2008, 21-22) or be it the functional understanding, that the vital-affective experience communicates the message of the producer - both approaches refer to the same picture. Differences, however, become visible in relation to the aesthetic judgment. With the functional understanding is said, that it is not only lust or unlust but criticism or affirmation are triggered. This assumption implies that the appreciation of the beholder depends on individual opinions and thus emotions (wishes, fears, worries, etc.) in comparison with the producer's intentions. However, an independent judgment, that refers to higher ideas or the 'essence' of aspects in nature or world, as aesthetic theory states, cannot be upheld. On the contrary, it is asserted that the affective power is more or less purposefully produced by the artist and designer and will be understood by the beholder. The functional understanding makes it clear that there are artistic means that fulfil these communicative functions, that can be learned by the producer and perceived by the observer and also be analyzed by scientists.

Theory of Symbolism and Embodiment

One of the first researchers to support the idea of a functional understanding of perception in general and in art was the New-Kantian and cultural scientist Ernst Cassirer at the beginning of 20th century. After his emigration to the USA, his approach was followed by the process philosopher Susanne Langer and the philosopher and later Cassirer expert John M. Krois (see Sauer 2014).

It can be emphasized as central to Cassirer's philosophy that his understanding of the symbolic meaning that man creates, depends on a perception of world that is not objective but affective-vital. In his three volumes about the *Philosophy of*

Symbolic Forms published between 1923 until 1929 he developed this idea. For him, the perception of world is based on a "libidinal power" (Cassirer 1964 [1929], 86). Cassirer called this kind of experiencing the world 'perception of expression' ('Ausdrucks-Wahrnehmung'). It is characterized by suffering or passion but less by taking of ideas: „Expression is at first nothing else than suffering; is far more a being grasped than of grasping." (ibid., 88 'ist weit mehr ein Ergriffenwerden als ein Ergreifen'). Consequently, it is not possible even by processes of abstraction to avoid this kind of perception (ibid., 78). His descriptions reveal two sides of the original perception: the immediate reactions to external stimuli (moving forms and spatial forms), and their affective-emotional reception (as expressive forms) (ibid. 86, cf. 94). In this way, the perception of man generates meaning which is relevant for imagination and action ('Bildkraft und Tatkraft') (ibid., 212). Acts therefore depend on these processes, because man orientates his actions according to the symbolic meaning what is afforded by the libidinal power of perception. However, this world of affective-emotional relevant symbolic meanings is forgotten through processes of externalization or abstraction in the symbolic conciseness of image, language and concept ('symbolische Prägnanz'). Only in his late book *An Essay on Man* (published 1944) does Cassirer assume that there is a domain in which this world becomes apparent: art. However, the action-relevant aspect of the 'perception of expression' ('Ausdrucks-Wahrnehmung') has no effect in this new context. According to the theory of aesthetic - as later Langer and Krois have also said - only the aesthetic experience of "living forms" matters (Cassirer 2007 [1944], 182-307, cf. 190). This gives us an intensified impression of reality. (ibid., 221).

Following Cassirer, it was Susanne Langer who wrote, that all signs and symbols of man must stem from sensual and emotional experiences (Langer 1942 [1965], 241-260, cf. 254). This connection is also regarded as essential for art and its reception. The non-discursive appearance e.g. of fine art (colors, forms, lines etc.) needs a non-discursive understanding (ibid., 256-260), which are qualities of feelings or patterns of tensions and resolutions (feelings), that create music as well as painting, sculpture, architecture, and all kindred arts (Langer 1967 [1953], 372). Following this idea Langer defines art as "the creation of forms symbolic of human feeling." (ibid., 40). Finally, Langer concludes in her two volumes *Mind. An Essay on Human Feeling*, published in 1967 and 1972., that the dialectic of tensions and resolutions characterize organic and mental as well as artistic forms. Her (image-) act-theory is based on the analogy of these aspects (Langer 1985 [1967], 199-252, cf. 206-207). But this objectification of feeling as quality is limited to art:

"Whereas anything made for any purpose, with perfect indifference to the 'quality of expression' (though the maker may aim to please by falling in with fashion), is not art at all. It is this quality that constitutes beauty in art." (ibid., 127).

This position of Langer's in the tradition of aesthetic theory raises a critical question: Is not design based on vital life experiences? It is Langer's own investigation of the structure of mind that she introduced at the beginning of volume one and summarized at the end of volume two which contradicts her assumption:

"As fast as objective impingements strike our senses they become emotionally tinged and subjectified; and in a symbol-making brain like ours, every internal feeling tends to issue in a symbol which gives it an objective status, even if only transiently." (Langer 1972 [1967], 342; Langer 1985, cf. 86-87).

If this is true, then it depends on the decision of the producer of art or design what is "objectified" by him. The ability of an artist and a designer is therefore to create forms of symbolic meaning by using the quality of expression and by choosing the subject while pursuing and realizing his/her own opinions and purposes.

Looking at John Krois' theory of embodiment, it becomes obvious that it corresponds with Langer's (image-) act-theory, even though he had not really taken up her research. So, he too, assumed that through art man has the opportunity to join in life's flow that is determined by feelings. Following on from Cassirer, Krois also said that art can objectify these feelings: "In art, a medium permits giving expressive meaning an objective form." (Krois 1987, 132). How is this possible? It was during the last year of his life in 2010, that Krois realized that feelings are not only related to decisions to fulfill desires and goals, but also to perception itself. It became clear to him that image-schemas and body-schemas are analogous. The image schemata are dynamic, non-optical forms (Krois 2011 [2010], 231). However, in contrast to earlier research in 2005, when he dealt with the philosophy of Alfred North Whitehead, Krois did not draw any conclusions from his most recent research with regard to the possibilities of manipulating the recipients (Krois 2018[2005], 1-27, cf. 16-18, cf. Sauer 2014b).

Developmental Psychology and Neuroscience

Does aesthetic experience have an affective and effective impact on the beholder? Even if Cassirer, Langer and Krois more or less continued to hold to the classical aesthetic theory, their functional understanding of the aesthetic experience is linking them to theories of embodiment and hence supported the thesis of this paper: that the aesthetic experience not only affects the beholder but has an effective impact on the beholder. It has a relevance for decisions and therefore actions and thus an impact on society. Developmental psychological and neuroscientific approaches are confirming this assumption (cf. Sauer 2015).

Initial findings are less to the effect of images than to human perception in contrast to animals, which was gained in Hamburg in the twenties and thirties at the department of psychology by Heinz Werner who shared an office with Cassirer. Werner's publication 1926 *Einführung in die Entwicklungspsychologie* was inspired by the interdisciplinary exchange with Cassirer. Werner's main thesis says that man is not originally distanced from the world. Rather, man takes the world as one that is determined by liveliness and action. Hence, everything which is perceived is considered as practical and functional or as a sign of actions and signals. The perception of forms is activated by movements; this also applies for animals too (ibid., 38-44). Therefore, the perception of the world is not objective but dynamic and physiognomic. In this way artists also recognize the world too (ibid., 45-47). Later, it was the developmental psychologist Daniel N. Stern who followed Werner's approach. With his research on newborns he showed that babies a few days old can already visually recognize the shape of a pacifier they had sucked on before. Newborns therefore do not recognize things but abstract representations, i.e. forms, intensities and patterns of time (Stern 1992 [1986], 74-103). Moreover, this kind of perceiving has a special quality. The considered elements will be translated into feelings or rather 'vital affects'. They can best be described with dynamic kinetic terms such as swelling, fading, explosive, decaying, bursting or attracting (ibid., 83). Stern said this faculty of differentiation is innate. It is purposefully used for social interaction or communication (ibid., 49). In addition, in citing Langer, Stern himself had already discerned a connection with the perception of art, so that the artist's style (i.e. the handling of forms) can be seen as a pendant to the spontaneous behavior in the field of 'vitality affects'. But in contrast to social interaction Stern explained that the beholder becomes aware of his actions or aesthetic experience (ibid., 225-230).

Stern's results are remarkably well in line with the investigations on mirror neurons carried out in 1996. The latter showed that when an action is observed by someone else, the same region in the brain is activated as if the observer himself had just done it. This mirroring of behavior is assessed as central for the understanding of others and social interaction. In direct exchange with a group of researchers, among them Giacomo Rizzolatti the original discoverer of mirror neurons at Parma, the empirically tested results from Stern proved to be true. While viewing, the beholder distinguishes between the goal and intention of an action and its vitality form (Di Cesare et al., 2013). Another member of the original group, Vittorio Gallese and the art historian David Freedberg, had already linked the results to art. They showed that we also mimic images, even abstract ones. In particular, formal abstract qualities are responsible for this (Freedberg, Gallese 2007, 197). This process can be described as an automatic emotional response or empathetic feeling that also addresses sensations that can become action-relevant. However, in contrast to the objections justified in some respects, as put forward by Ruth Leys (Leys 2012, 1-5), Stern's and Rizzolatti's collaborative research as well as parts of research of other neuroscientists' research that pursued an approach to neuroaesthetics do not exclude cognitive aspects, and thus intentional and action-relevant interpretations (Gallese, Freedberg 2007; Gallese, Cinzia di Dio 2012; Gallese 2019, 114, cf. explicitly Grabbe 2016).

Conclusion

How does an audience receive a work of art? Does the experience only affect the viewer or does it have an effect, and thus influence his or her actions? The description of an example of art and design as well as the investigation of embodiment theories in philosophy and science should show that these experiences are processes of evaluation. They are inseparably linked to their objects, i.e. the respective work of art and design. What is striking is that they were originally stimulated not by the motif but by the formal abstract elements of the work, be it by Cézanne's 'taches' or rigid attitudes and organic patterns of the figures, handbags and dresses in the Prada advertising. Research has originally linked this phenomenon to general perception. It is said to have a genetic, innate basis. This means that the general perception and the special perception of art and design are not objective but vital-affective. Therefore, perception can be defined as a doing that generates a first meaning. This meaning only has the character of a certain affective power that gives expression and meaning to reality or themes in art and design. This is why the traditional aesthetic theory speaks of truth and, ideality, good and beautiful or at least of a density or essence, that becomes conscious. It is the viewer who realizes this meaning through the perception of expression (through the feeling of vital affects). But what he experiences is based on concrete forms defined by the producer. So, the meaning of the work is that of the producer. Thus, the difference to epistemological aesthetic theory becomes clear, since the meaning cannot be seen independently of the producer's intention. It is not a transcendent idea or an epistem on world or nature realized by an artist. On the contrary, it is the composition of an artist or designer that is mimicked by the viewer and ultimately evokes an answer, be it positive or critical. Assuming that the aesthetic experience has not only an affective but effective impact on the viewer, the traditional epistemological aesthetic theory can be extended towards a semiotic theory. Instead of only pleasant or unpleasant feelings ('lust or unlust'), it is also affirmation or critique that is evoked. The aesthetic experience has proved to be a process of generating action relevant and thus cultural values, which also manifest themselves in generally or rather culturally generated aesthetic values about that what a society or culture considers beautiful (Döring 2010, cf. Fingerhut 2019). Thus, the image is not only a culturally determined decorative object, but a part of society. Like language, the image can be defined as a system of communication of cultural relevant values.

Author Biography

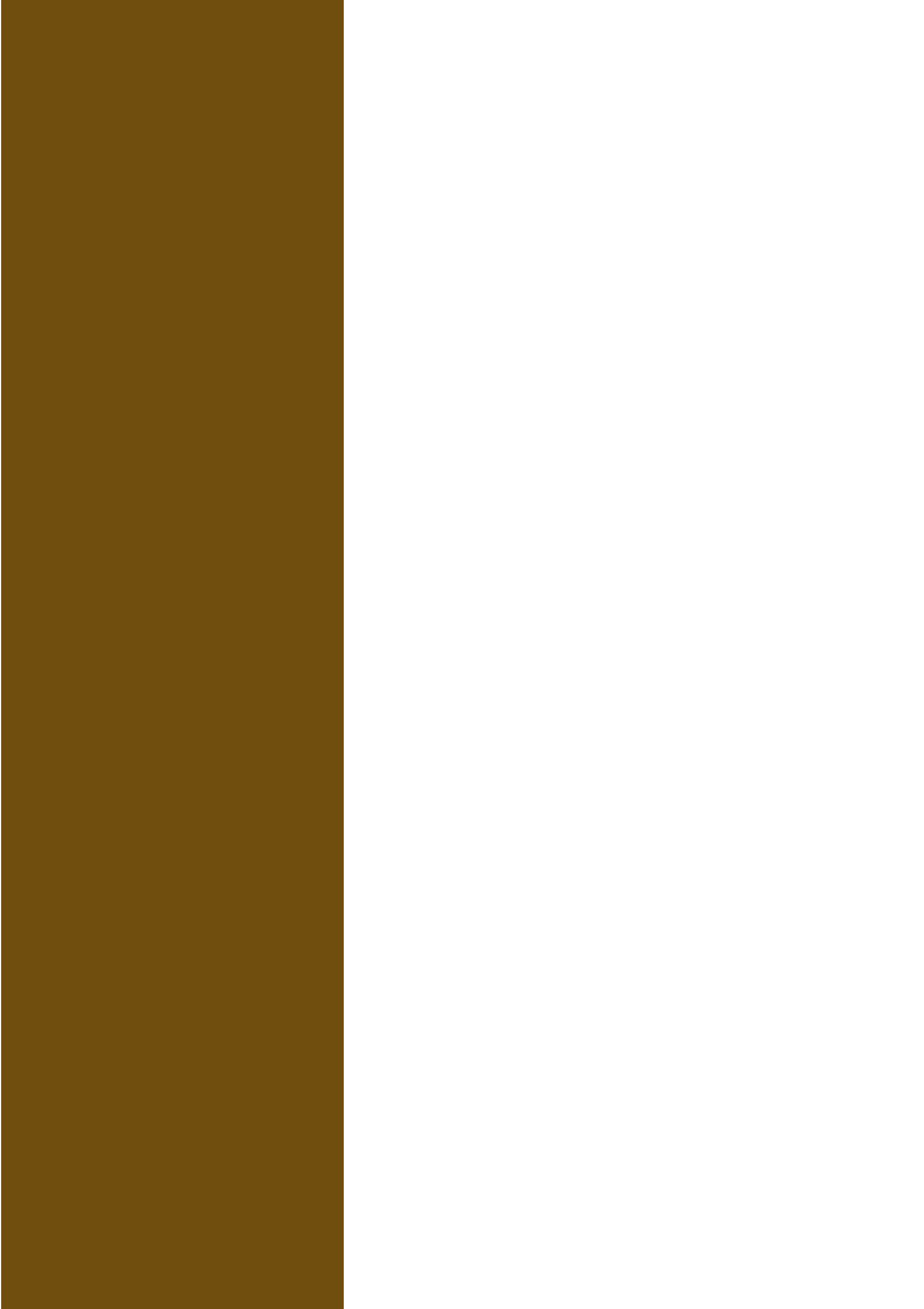
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Bibliography

- Boehm Gottfried. Zu einer Hermeneutik des Bildes. In *Seminar: Die Hermeneutik und die Wissenschaften*, edited by Gottfried Boehm und Hans-Georg Gadamer. Frankfurt a.M.: Suhrkamp, 444-471.
- Boehm, Gottfried. Augenmaß. Zur Genese der ikonischen Evidenz. In *Movens Bild. Zwischen Evidenz und Affekt*, edited by Gottfried Boehm, Birgit Mersmann, Christian Spies. München: Fink, 15-38.
- Cassirer, Ernst. *Versuch über den Menschen. Einführung in eine Philosophie der Kultur* (R. Kaiser, Trans.). Hamburg: Meiner, 2007 [1944].
- Cassirer, Ernst. *Philosophie der Symbolischen Formen (Vol. 3), Phänomenologie der Erkenntnis*. Darmstadt: Wissenschaftliche Buchgesellschaft, 1964 [1929].
- Döring, Sabine A. Ästhetischer Wert und emotionale Erfahrung. In *Kunst und Philosophie, Ästhetische Werte und Design*, edited by Julia Nida Rümelin and Jakob Steinbrenner. Ostfildern: HatjeCantz, 2010, 53-73.
- Di Cesare G., Di Dio C., Rochat M. J., Sinigaglia C, Bruschweiler-Stern N, Stern D. N., Rizzolatti G. The neural correlates of 'vitality form' recognition: an fMRI study: this work is dedicated to Daniel Stern, whose immeasurable contribution to science has inspired our research. In *Social Cognitive and Affective Neuroscience*, 9 (7), 2014, 951-960.
- Fingerhut, Jörg. Fingerhut. Perspektive, Komplexität und Leere in der japanischen und europäischen Tradition. Empirische Ästhetik und die Bilderfrage. In: *Bilder als Denkmittel und Kulturform*, edited by Y. Sakamoto, F. Jäger, J. Tanaka. Berlin (forthc.): https://www.academia.edu/39708569/Empirische_%C3%84sthetik_und_die_Bildfrage (28.10.2019).
- Freedberg, David, Gallese, Vittorio. Motion, emotion and empathy in esthetic experience. In *Trends in Cognitive Sciences*, 11 (5), 2007, 197-203.
- Gallese, Vittorio., Cinzia Di Dio. Neuroesthetics: The body in esthetic experience. In *The Encyclopedia of Human Behavior*, 2, 2012, 687-693.
- Gallese, Vittorio. *Embodied Simulation. Its Bearing on Aesthetic Experience and the Dialogue Between Neuroscience and the Humanities*. In *Gestalt Theory* 41, 2, 2019: 113-128.:https://www.researchgate.net/publication/334722167_Embodied_Simulation_Its_Bearing_on_Aesthetic_Experience_and_the_Dialogue_Between_Neuroscience_and_the_Humanities. (28.10.2019)
- Goodman, Nelson. *Languages of Art: An Approach to a Theory of Symbols*. Indianapolis: Hacket Publishing Company. 1976.

- Grabbe, Lars. Körper und Zeichen. Das Verstehen interaktiver Mediensysteme im Kontext phänosemiotischer Wahrnehmungsdynamik. In *Visual Past* 2, 7/2016, 1-25.: http://www.visualpast.de/archive/pdf/vp2016_0199.pdf. (28.10.2019)
- Grassi, Ernesto. Macht des Bildes: Ohnmacht der rationalen Sprache. Zur Rettung des Rhethorischen. Köln: DuMont, 1970 [1968].
- Imdahl, Max. Marées, Fiedler, Hildebrand, Riegl, Cézanne. Bilder und Zitate. In *Literatur und Gesellschaft vom neunzehnten ins zwanzigste Jahrhundert*, edited by Joachim Schrimpf. Bouvier: Bonn 1963.
- Kant, Immanuel. *Kritik der Urteilkraft*. Stuttgart: Reclam, 1991 [1790].
- Krois, John M. *Cassirer: Symbolic forms and history*. New Haven & London: Yale University Press, 1987.
- Krois, John M. Experiencing Emotions in Depictions. In *John M. Krois, Bildkörper und Körperschema. Schriften zur Verkörperungstheorie ikonischer Formen*, edited by Horst Bredekamp, Marion Lauschke. Berlin: Akademie, 2011 [2001], 232-251.
- Krois, John M. Tastbilder. Zur Verkörperungstheorie ikonischer Formen. In *John M. Krois, Bildkörper und Körperschema. Schriften zur Verkörperungstheorie ikonischer Formen*, edited by Horst Bredekamp, Marion Lauschke. Berlin: Akademie, 2011 [2010], 210-231.
- Krois, John M. Philosophy and Iconology. In *Ikonische Formprozesse. Zur Philosophie des Unbestimmten in Bildern*, edited by Marion Lauschke, Johanna Schiffler, Franz Engel. Berlin, Boston: De Gruyter, 2018 [2005], 1-27.
- Langer, Susanne K. *Philosophie auf neuem Wege. Das Symbol im Denken, im Ritus und in der Kunst*. Translation into German A. Löwith. Berlin: S. Fischer, 1965 [1942]
- Langer, Susanne K. *Feeling and Form, A Theory of Art Developed from Philosophy in a New Key* (4th ed.). London: Routledge & Kegan Paul Limited, 1967 [1953].
- Langer, Susanne K. *Mind: An Essay on Human Feeling* (Vol. 2). Baltimore & London: John Hopkins University Press, 1972.
- Langer, Susanne K. *Mind: An Essay on Human Feeling* (Vol. 1) (4th ed.). Baltimore & London: John Hopkins University Press, 1985 [1967].
- Leys, Ruth. 'Both of Us Disgusted in My Insula'. Mirror neuron theory and emotional empathy. In *nonsite.org*, 5, 2012, 1-33. <https://nonsite.org/article/%E2%80%99Cboth-of-us-disgusted-in-my-insula%E2%80%9D-mirror-neuron-theory-and-emotional-empathy>. (28.10.2019)
- Sauer, Martina. *Cézanne, van Gogh, Monet. Genese der Abstraktion*. Heidelberg: ART-doc 2014a [1999/2000]: <http://archiv.ub.uni-heidelberg.de/artdok/2573/>. (28.10.2019)
- Sauer, Martina. Ästhetik und Pragmatismus. Zur Frage der Vereinbarkeit von ästhetischer Theorie und Handlungsrelevanz bei Cassirer, Langer und Krois. In *IMAGE, Zeitschrift für interdisziplinäre Bildwissenschaft* 20 (7), 2014b, 49-69: <http://archiv.ub.uni-heidelberg.de/artdok/3196/> (28.10.2019).
- Sauer, Martina. Visualität und Geschichte. Bilder als historische Akteure im Anschluss an Verkörperungstheorien. In *Jenseits des Illustrativen. Visuelle Medien und Strategien politischer Kommunikation*, edited by Niels Grüne, Claus Oberhauser: Göttingen: V & R unipress, 2015, 39-60.
- Stern, Daniel N. *Die Lebenserfahrung des Säuglings* (W. Krege Trans.). Stuttgart: Kett-Cotta. 1992 [1986].
- Werner, Heinz. *Einführung in die Entwicklungspsychologie* (4th ed.). München: Johann Ambrosius Barth, 1959 [1926].



Toward an Aesthetics of Inter-space From Microgravity Environment to Multi-gravity Environment

Akihisa Iwaki

Abstract

Following the “aesthetic turn” in the 1980s, analyzing human experiences on technologically constituted environment has become an important subject of aesthetics study. Since an outer space environment is a specific biosphere created using advanced technologies, it represents a model case for addressing the questions. In this study, we introduce the term “inter-space” to examine a situation where relatively and artificially closed space environments coexist in the universe. Then, we focus on a specific experience of the microgravity environment with regard to the research by artists for the “Pilot Missions of Utilization for Culture/Humanities and Social Sciences” project of the International Space Station (ISS) (1996–2013). Although these studies resulted in several findings, they are not well-known in the western space art context. Finally, we turn our attention to the multi-gravity space environments and try to arrange materials in terms of inter-space aesthetics. What do living organisms feel in multi-gravity environments? Proposing questions regarding inter-space life and analyzing it in collaboration with artists who can sensualize it in their own way and researchers in other genres is one of the concerns of inter-space aesthetics.

Introduction

Following the “aesthetic turn” in the 1980s, analyzing human experiences on technologically constituted environment has become an important subject of aesthetics study. Humankind has been shaped both by the environment in which we live and by the technological alterations we have made to it. In this sense, in addition to “being in the environment,” humans are also “beings in the technological environment” (Murata 2013, 16ff.). How have our thoughts, sensibilities, and lives changed through our reciprocal relationship with technology? How will they change in the future? An outer space environment (e.g. the International Space Station, ISS) is a specific biosphere created by advanced technologies; thus, it could represent a model case for exploring the above questions.

In 1996, the research titled the “Pilot Missions of Utilization for Culture/Humanities and Social Sciences” on the ISS was started in Japan. Some art projects were conducted on the ISS (2008–2013), and several interviews and knowledge-rich reports by scholars in the humanities and social sciences domains were recorded. However, most of these art projects and research reports limited in their comparison between “1G environment on the ground” and “microgravity environment on the space,” since they assumed the effective utilization of the ISS. In a situation where manned spaceflight, such as missions to Mars, is planned, should we examine perspectives on multi-gravity environments, ranging from 0G to 1G, to design the next step in space exploration? (Earth, 1G; Planetary Transit, 0G; Moon, 0.16G; Mars, 0.38G; further, there is the possibility that artificial gravity will be introduced inside the spaceship.)

In this study, we examine a situation wherein relatively closed biospheres (“space-environments”) coexist in the universe (We would like to call this situation “inter-space.”), based on the Bergsonian–Deleuzian concepts of the “plane of matter (plan de matière),” “set (ensemble),” and “whole (tout).” We then have a look at art experiments toward “Pilot Mission” to learn from the artists’ methods. At last, we try to present a few points in preparation of the analysis of bodily experience and life in multi-gravity environments based on earlier studies and recent experiments conducted on space life sciences and space biology.

Space and Zone of Sensibility

Regarding the aesthetics of inter-space, we first wish to define some basic terms. First, we would like to distinguish between “space (outer space)” itself and “space environment (environment in outer space).” From the viewpoint of ecological psychologist James. J Gibson,

No animal could exist without an environment surrounding it. Equally, although not so obvious, an environment implies an animal (or at least an organism) to be surrounded. This means that the surface of the earth, millions of years ago before life developed on it, was not an environment, properly speaking. The earth was a physical reality, a part of the universe...It was a potential environment, prerequisite of the evolution of life on this planet. We might agree to call it a world, but it was not an environment. (Gibson (1979)1986, 8)

Gibson emphasizes that animal and environment make an inseparable pair. Each term implies the other. The concept “environment” does not merely indicate the physical circumstances around an animal but also implies inextricable connections between animals and their surroundings. Therefore, one cannot call the conditions prior to the beginning of life on Earth an “environment” (Murata 2013, 3). In other words, without a living organism there are no environments.

While “space (outer space)” simply refers to a physical world in a wider sense, “space environment” is a place where living organisms—at least potentially—can survive. Defined as such means that already known “space-environments” are quite limited; that is, inside a space station, spaceship, spacesuit, and in the Earth’s atmosphere. There is the possibility that some environments with extraterrestrial life that we do not know yet will be found in habitable zones in the future. However, high heat zones, for example, where life cannot be sustained, can never become a “space environment.” Even on Earth, it is said that the “primeval soup” from which life originated “could not be produced when the earth was very hot.” (cf. Deleuze 1983, 93/ 63¹). Even if the “the primeval soup” came from outer space as proposed by the Panspermia hypothesis, the “cooling down” of Earth must have been one of the preconditions which made the evolution of life possible. Stated differently, cooling down of a “space” is necessary to generate an environment.

Although the number and territory of space-environments are quite limited under present circumstances, humankind could extend its sensibility beyond these environments by using technologies such as telescopes or space probes. GN-z11, for example, might be one of the farthest galaxies observed by the Hubble Space Telescope and the Spitzer Space Telescope. It is supposed that the light of this galaxy took 13.4 billion light-years to reach Earth (light-travel-time distance) and, due to the expansion of the universe, the current physical distance of this galaxy from the Earth is estimated at 32 billion light-years (proper distance). At the same time, our range of action to space has recently been expanded by space probes. On July 11, 2019, for example, the Japan Aerospace Exploration Agency's (JAXA) Hayabusa 2 spacecraft had a second successful touchdown on the surface of the asteroid Ryugu and is expected to have collected material beneath the surface. In this way, we will increasingly extend our sensory-motor schema.

However, there is a theoretical limit to extend our awareness or knowledge of space because no signal can travel faster than the speed of light. This theoretical limit is known as [the] "observable universe" and its diameter is estimated at 93 billion light-years. Although there is the possibility that such estimated diameter itself will be reviewed in the future with the progress of science, it is currently sufficient for us aestheticians to confirm that the theoretical limit for the extension of our senses exists, even if the technologies of astronomical observations do at some point evolve dramatically.

To examine the relationship between space environment and space itself, we would like to briefly introduce the Bergsonian-Deleuzian concepts of "plane of matter (*plan de matière*)," "set (*ensemble*)," and "whole (*tout*)."¹ Based on Henri Bergson's works, in particular, *Matter and Memory* (1896), Deleuze clarifies the relation of these concepts in his book *Cinema 1: The Movement-Image* (1983). From Deleuze's viewpoint, "plane of matter" is an acentered universe where everything reacts to everything else. He defines it as "an infinite set"; "set"—more precisely "finite set"—is a closed system cut off from the universe or plane of matter, but it is never perfectly closed because of the "whole", that is to say, the duration which forces the closed system to open up. Questions such as whether the universe itself is an infinite set—as Deleuze believes—or a finite set, and whether there is a single, unique universe or multiverse, might not be the central issue for aestheticians, since such questions solely concern the "reason" that an inference beyond experience can be made, and not the "sensibility."

As discussed above, there is a theoretical limit to extending sensibility if nothing can travel faster than the speed of light. We can call this observable universe [a] "set of sensibility in theory." The set of sensibility in theory is the largest finite set of sensibility and the number of this set is increased by an amount equal to the number of observers. If extraterrestrial lives exist in a galaxy far away, they may be at the center of their own "set of sensibility" whose diameter is the same, but coordinates are very different from that of humans on Earth.

In this set of sensibility or observable universe in theory, we can suppose some types of smaller "finite sets." The maximal range of a "set of sensibility in fact", in other words, "already visualized universe" or "known universe" is elastic and changes depending on technologies of observation. The maximal range of "set of action in fact" is also elastic and depends on technologies such as unmanned space probes having some actual influence on the space. The "space environment" where life can survive also shapes a "finite set." The number and distribution of this set changes depending on technologies concerning manned space missions, if we set aside issues regarding extraterrestrial life. Space environments in outer space—that is, outside of the atmosphere—the biosphere in a space station, spaceship and spacesuit are literally called "enclosed environments."

However, as Deleuze argues regarding "finite set," the space environment is never perfectly closed because of duration or time. For example, if you knew as a fact that even today the ISS cannot perfectly shut down harmful cosmic rays, you might more easily accept that even the ISS is never perfectly closed. More precisely,

[a] closed system is never absolutely closed; but on the one hand it is connected in space to other systems by a more or less 'fine' thread [cosmic ray, for example], and on the other hand it is integrated or reintegrated into a whole which transmits a duration to it along this thread (Deleuze 1983, 30/ 17).

A space environment is "a closed system, relatively and artificially closed" (Deleuze 1983, 31/ 18). Currently, humankind lives in not only one space environment. In addition to Earth, at least, we have the ISS where approximately six astronauts always stay. In the future, we may have more and more space-environments. Images of space colonies conceived of in the 1970s, for example, stimulate our imaginations (Fig. 1).²

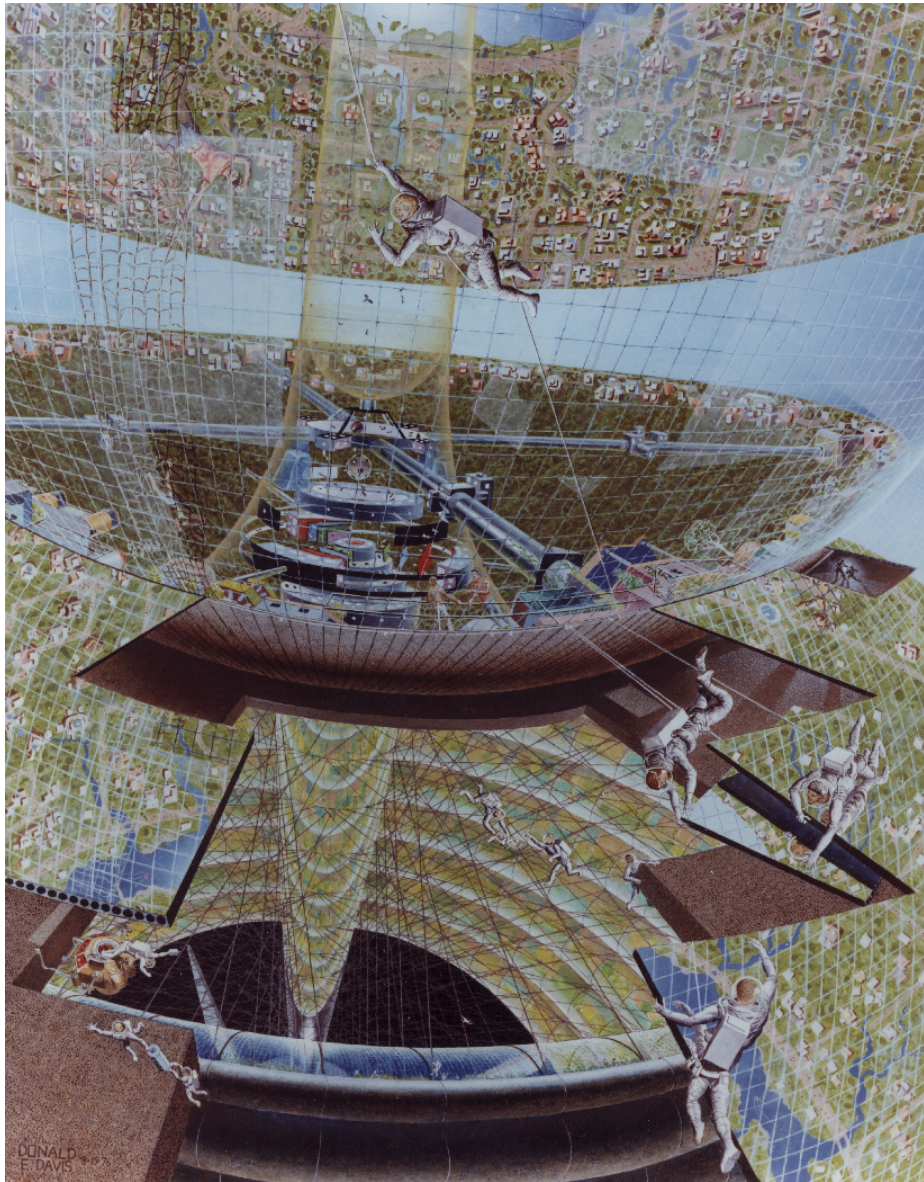


Figure 1: "Colony construction crew at work" (1975).
(Courtesy of NASA Ames Research Center, AC76-1288)

Sensualization of Microgravity Environment Art Experiments at the International Space Station (1996–2013)

After the first successful human space flight by Russian cosmonaut Yuri Gagarin in 1961, space became a place where humans “could go”. Via the operations of space stations such as those in the Salyut program (Russia, 1971–86), Sky Lab (United States, 1973–74), and Mir (Russia, 1986–2000), construction of the International Space Station (ISS) began in 1998 and was completed in 2011. The first long term-stay aboard ISS began in 2000 (Expedition 1). Currently, six astronauts stay at the station 24 hours a day, 365 days a year, 400 km above the ground. Space has become a place where humankind “can live” in the present period (Kokusaikoutoukenkyuusho and Uchuukokukenkyuukaihatsukikou 2009, 29). In anticipation of the construction of the ISS and Japanese Experiment Module (JEM), or “Kibo” (attached to ISS in 2009), the National Space Development Agency of Japan (NASDA, reorganized into the present Japan Aerospace Exploration Agency, JAXA in October 2003) and the International Institute for Advanced Studies (IIAS) began research on “Pilot Missions of Utilization of Culture/Humanities and Social Sciences” in 1996.³

From 1996 to 1999, NASDA and IIAS conducted “Comprehensive Research,” including hearings of researchers in 1. Philosophy, Religion; 2. Folklore; 3. International Politics; 4. Sociology; 5. Literature; and 6. Art. They then focused on art to concretize the initial study, since art experiments can be conducted in space environments as a first step to understanding space from the broader perspective of humanities and social studies. The Tokyo National University of Fine Arts and Music and the Kyoto City University of Arts participated in the research from the beginning. Musashino Art University (the research base later moved to Tsukuba University) and Ochanomizu University joined the cooperative research with JAXA in 2001.

In the Western context, the term “space art” has referred to a wide range of cultural phenomena regarding space. The well-known definition of space art by Roger F. Malina includes space-related fine art as well as space illustration, photography, film, and applied arts such as space architecture, interior design, furniture design, and so on (Malina 1989). One of the pioneering space artists, Arthur Woods classifies space art into two categories: “Astronomical Art” and “Astronautical Art”, and their sub-genres (Woods 2019).

Furthermore, "Spacearts – The Space Art Database," which is being developed through collaboration between Leonardo/Olats and the O.U.R.S. Project (begun by Woods), for example, proposes 24 categories of space art.⁴ However, there may not necessarily be a tight relation between "space art" in the Western context and the "宇宙芸術 (uchuu-geijyutsu)," or "宇宙アート (uchuu-art)" (both are translated into English as "space art") conducted by JAXA. Reports published by JAXA concerning the "Pilot Missions" made almost no mention of "space art" in the Western context.⁵ On the contrary, while many years have passed since the last period of art experiences in the ISS, it seems that little is known about the "Pilot Missions" in the context of Western space art. Nevertheless, JAXA itself evaluated, "The Pilot Missions have sought to use space for culture, humanities, and the social sciences field in unique ways never before attempted by other international space agencies." (JAXA 2016a, Foreword). The language barrier may provide a simple explanation for such a situation. In fact, most rich reports and websites published by JAXA, IIAS, and the art universities are available only in Japanese. I hope that the exchange of information and experiences between both sides will be promoted for the next generations of space art.

In any event, most artists and designers who carried out collaborative research with JAXA and IIAS were specialists of contemporary art and design, not of space art. Therefore, each had his or her own history and approach to the problem. For example, the Kyoto City University of Arts' "Artistic Approach to Space (AAS)" consisted of three subprojects: the KOKORO Project (implementation of arts in a microgravity environment); COSMOS Project (fundamental research-investigation/data collection); and W-Here Project (experiment in artistic communication between space and the Earth). The following are basic concepts of the KOKORO project, from which we can derive the participants' interests: 1. Explore mental and aesthetic-sensory communication methods in space environments; 2. Explore aesthetic-sensory expression possibilities specific to microgravity environments; 3. Promote people's intuitive understanding of space by presenting microgravity environments aesthetically/sensually.⁶

Since ISS utilization (not yet constructed at the time) was assumed, AAS considered the "space environment" and "microgravity environment" to be nearly equal and aimed for the sensualization of the microgravity environment through the arts. Tokyo National University of Fine Arts and Music also called their research project, "The Future of Artistic Expressions in a Microgravity Environment: Toward Understanding the Nature of the Relation between Humans and Space."

The research projects proceeded based on the following steps: 1. interviews with astronauts; 2. parabolic flight experiments that produce a microgravity environment for several seconds; and 3. "Pilot Missions" in Kibo with a number of selected proposals (first period, 2008–2009; second period 2011–2013). We would like to take a brief look here at a single work which was not realized as a "Pilot Mission" in Kibo: *Mind Garden* (心の場 *Kokoronoba*). Noriyasu Fukushima, a sculptor and professor (currently emeritus professor) of Kyoto City University of Arts and principal investigator of AAS, proposed the concepts and full-size model (Fig. 2).



Figure 2: Noriyasu Fukushima, *Mind Garden (Kokoronoba)*, full-size model.
From: *Kyoudoukenkyuusaishuuseikahoukokusho: Uchuu eno Geijyutsuteki apurouchi*
(Final Report of Joint Research: Artistic Approaches to Space).⁷

Based on concrete information concerning the Japanese Experiment Module Kibo's Experiment Logistics Module Pressurized Section (ELM-PS) (Fig. 3) and his experiences as an artist, Fukushima achieved the most appropriate shape and scale of the work. From his perspective, a sphere is inadequate for this work because its interior space and outer shape are too perfect to express what is in one's heart. By contrast, an ellipsoid seems adequate because it makes us conscious of an elastic and free unity with some irregular aspects we intuitively associate with an image of the universe. Furthermore, the ratio of the minor to the major axis of the ellipsoid is decided as 20:26 [1540 mmφ × 2000 mmφ]. According to Fukushima's experience and intuition as an artist, this is a neutral ratio which adequately evokes the complex patterns of sensations and feelings.⁸

AAS held its first public briefing titled “Mind of Universe, Mind of Earth” on December 10, 2003, at Kyoto City University of Arts, where several prototypes for the “Pilot Missions,” including *Mind Garden (Kokoronoba)*, were displayed.⁹ Astronaut Akira Hoshide was invited to experience the prototypes and participated in open discussion with the artists. While astronaut Hoshide was in the *Mind Garden (Kokoronoba)*, students of the Faculty of Music of Kyoto City University of Arts played baroque music (cf. Iwaki 2015, 13). He talked about *Mind Garden (Kokoronoba)* during the open discussion:

First, regarding *Mind Garden (Kokoronoba)*, I had a very luxurious time. Thank you. For the first time, when I entered this work, because of its rounded shape and seamless surface, I lost my sense of direction for a moment. Although I have not experienced it yet, I think that is exactly the zero-gravity situation. When such a place is provided in outer space, we can use it as our private space, a space where we have time to ourselves. In contrast, when we make such a place on the ground, I think we can simulate the experience of zero-gravity. It may have been thanks to the luminous paint, in particular, that I lost all sense of perspective. I could not tell where the wall was. In addition, the sound of the violoncello from the outside resonated within the space. It sounded very beautiful. Thus, I saw the potential to apply this work on the ground. (translated from Kyotoichiritsugeijyutsudaigaku and Uchuukokuukaihatsukikou 2005b, 74)

It is interesting that astronaut Hoshide experienced a microgravity-like situation in *Mind Garden (Kokoronoba)* five years before his first mission to outer space in 2008. As the astronaut’s comment suggests, by using floating luminous color and a seamless surface (a kind of “total field (Ganz Feld)”), Fukushima splendidly converted a microgravity situation into a visual/physical experience. A similar concept was also actualized in Fukushima’s other works (cf. Fig. 4). *Mind Garden (Kokoronoba)* definitely functions as a kind of artistic space environment simulator on the ground. However, it is remarkable that Fukushima conceived of this work not only as a simulator of the space environment on the ground but also as a device to be installed in the ISS (Fig. 3). He even expressed his intention as follows: “To examine transformation of the senses and sensibility [in space], virtual experiments count for little ... significant results would be achieved only by real acts in the space environment. Thus, collaboration with astronauts is necessary.”¹⁰ Why should we bother to make plans to install an enclosed environment like *Mind Garden (Kokoronoba)* in an inherently closed space station? It seems the artist’s intuition virtually but deeply resonates with Deleuze’s perspective on framing and time:

[T]he more the image is spatially closed, even reduced to two dimensions, the greater is its capacity to open itself on to a fourth dimension which is time, and on to a fifth which is Spirit [. . .] This is why we said that there is always out-of-field, even in the most closed image. And that there are always simultaneously the two aspects of the out-of-field: the actualisable relation with other sets, and the virtual relation with the whole. But in the one case the second relation - the most mysterious - is reached indirectly, on to infinity, through the intermediary and the extension of the first, in the succession of images; in the other case it is reached more directly, in the image itself, and by limitation and neutralisation of the first.

(Deleuze 1983, 31/ 17-18)

From such a viewpoint, we can understand *Mind Garden (Kokoronoba)* as an artistic experimental device that inquiries into the relation between the mind and the universe, or time itself, by utilizing the microgravity enclosed environment as a medium.¹¹

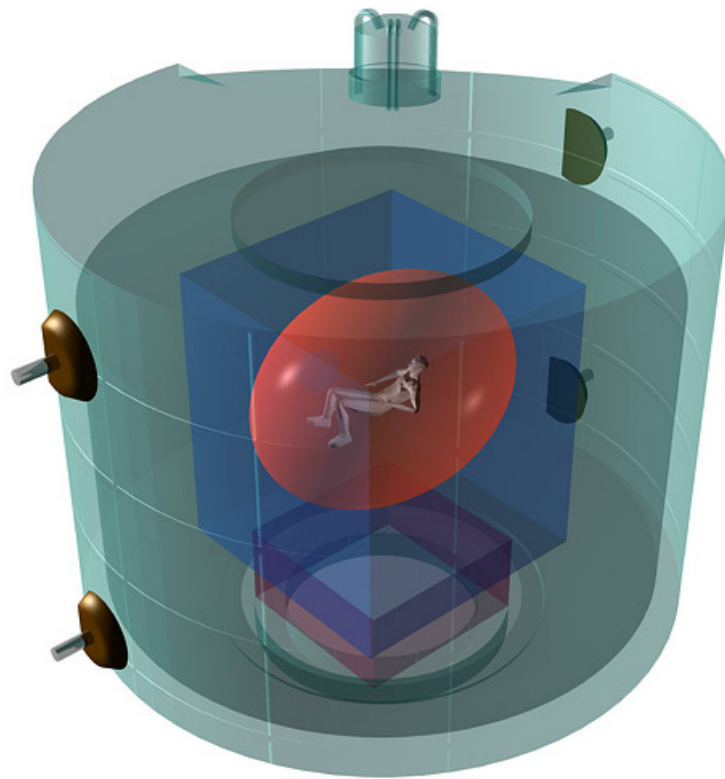


Figure 3: Noriyasu Fukushima, *Mind Garden (Kokoronoba)* placed at Japanese Experiment Module Kibo's Experiment Logistics Module Pressurized Section (ELM-PS), CG Image. From: *Kyoudoukenkyuusaishuuseikahoukokusho:Uchuu eno Geijyutsuteki apurouchi* (Final Report of Joint Research: Artistic Approaches to Space).¹²

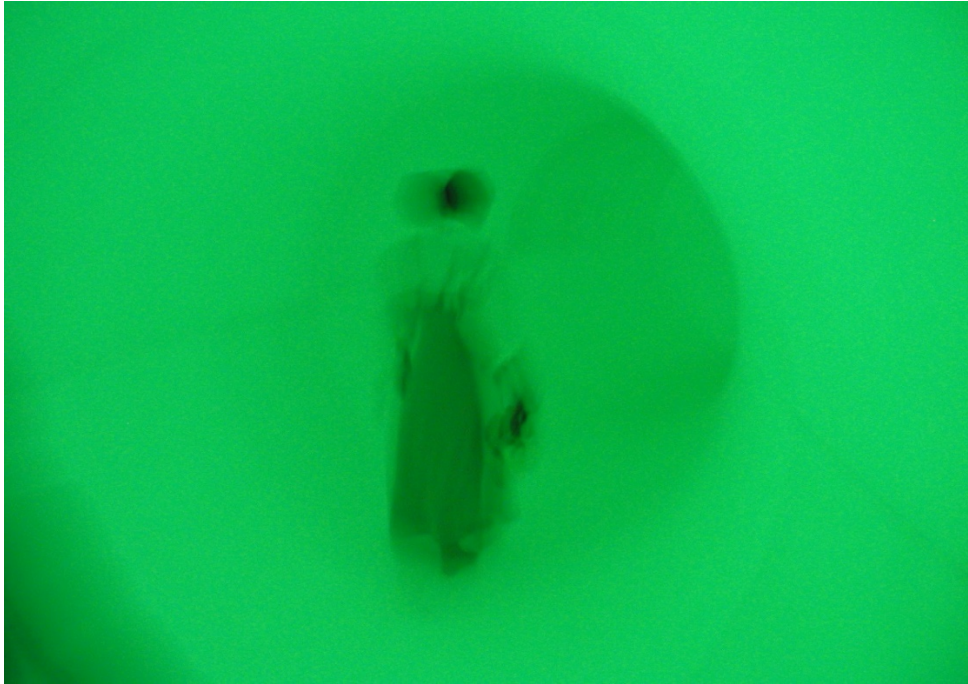


Figure 4: Noriyasu Fukushima, *Mind Pass*, 2002,
Fluorescent paint on FP, ϕ 190 cm x 1300 cm in length,
Solo Exhibition, National Museum of Art, Osaka. (Photograph by Ken'ichi Iwaki)

Based on aesthetician Ken'ichi Iwaki's interpretation of AAS' "space art" (宇宙アート; uchuu-art) (Iwaki 2015), JAXA defined "space art" as follows:

The Pilot Missions are activities "for thinking about art using art." In this sense, we can think of the Pilot Missions as an experiment in "meta art" that fits the concept of artistic experimentation described below. "Art" helps us understand problems instinctively by expressing certain images that are temporary and transient but that take the place of theoretical discussion. In conclusion, an "art" is both an "indication of cognitive style" and a proposal for "a way of looking at things, thinking, and deciding how to act" on an aesthetic level. (This concept of "art" is borrowed from a suggestion by Ken'ichi Iwaki). (JAXA 2016a, 3-1)

For astronauts who have initiated prolonged stays on the ISS, the floating of the body caused by the absence of gravity is no longer abnormal. If perception and thought arise originally from interactions between actions and the environment, how will our sensibilities and minds change in a microgravity space environment, where sensory-motor connections are disturbed or transformed? (Iwaki 2013, 221) Space art works address such questions in their own ways (see also Iwaki 2017).

Sensualization of the Multi-gravity Environment A Culture Medium for the Next Generation of Space Art

In the art projects conducted on the ISS (2008–2013), artists presupposed space environments with microgravity and sensualized such situation through their works. If the precondition changes fundamentally, artists would show us completely new interpretations. Traditionally, aestheticians have worked on production of art works as critics, interpreters, or something different. However, in such cases, I think there is a possibility that aestheticians become mediators between art and science, or a culture medium of ideas for creations.

Why do humans go to space? Why do we need to extend our life sphere to include space? Certainly, most space development can be achieved without the physical presence of humans. However, because the solar system and the Earth are not eternal, we should prepare our escape. This may be the reason we go to space.

In reality, there are countless physiological and psychological problems to overcome to allow humans to live in a microgravity environment over a long period, such as: Radiation exposure; Space adaptation syndrome (SAS) or space sickness; Moon face/bird leg; Sensory-motor and cardiovascular deconditioning; Bone demineralization; and Mammalian fertilization, embryogenesis, pregnancy and birth (which have not yet been successful in space). In addition, new problems have been reported recently: Visual impairment intracranial pressure syndrome, which is visual degradation due to the effects of microgravity on the visual nerves and system (Kramer, et al. 2012); and Narrowing of the central sulcus, an upward shift of the brain, and other problems that have occurred in astronauts after all long-duration flights (Roberts, et al. 2017).

As *Artificial Gravity* (2007) edited by Gilles Clément and Angie Buckley postulate,

Artificial gravity will not be a panacea for addressing all risks associated with human spaceflight. Obviously, it cannot solve the critical problems associated with radiation exposure, isolation, confinement, and life support systems failures. However, it offers significant promise as an effective, efficient multi-system countermeasure against the physiological deconditioning effects associated with prolonged exposure to weightlessness. The appropriate application of artificial gravity might serve to address virtually all of the risks associated with bone loss, cardiovascular deconditioning, muscle weakening, neurovestibular disturbances, space anemia, and immune system deficiency (Clément and Buckley eds. 2007, 26).

Although we cannot discuss this in detail here, Clément and Buckley summarize the history of representations and the simulations of artificial gravity and provide rich materials for aestheticians. According to them, no formal human artificial gravity experiments were performed in space; however, there are many ground-based studies. NASA's "lunar gravity simulator" (Hewes and Spady 1964) and "Langley rotating space station simulator" (NASA 1970, 335, Fig. 6) are impressive examples.¹³

Clément, Bukley, and William (2015) demonstrate that the "hypothetical comfort zone" is bound by values of artificial gravity levels and rotation rates based on theoretical studies. They report that the maximum rotation rate should be 6 rpm and the radius over 8m (cf. Clément, Bukley and William, 2015, Figure 2). In addition, one of the most passionate fact for an aesthetician is that, in the case of short radius centrifuge, we receive a variety of gravity from head to toe, for example 0.2 G at the top of head, 1 G on center of the body, 2 G on the foot (cf. Clément, Bukley and William, Figure 3). How does our sensory-motor schema change in such complex situations?

In terms of sensibility issues, it is reported that humans can detect artificial gravity levels of 0.5G in orbit but cannot perceive artificial gravity levels of 0.22G or less: Up to 2G at the feet is adequate for exercise; however, 2–3G at the head can cause loss of peripheral vision, or *greyout* (Clément and Bukley 2007, 45). It is also reported that an "on-board human periodic or intermittent small centrifuge therefore presents a realistic near-term opportunity for providing artificial gravity during planetary missions" (Clément and Bukley 2007, 70).

Of course, multi-gravity experience occurs not only when people use artificial gravity. To be precise, even on the ground, we do not live in a homogeneous 1 G world. Although we might not sense it, there is variance in gravity: For example, because of centrifugal force of the Earth, the gravity of near-equatorial region is about 5 per cent lesser than that near North and South Pole regions. Thus, you can diet if you go near the equatorial regions.

When astronauts and cosmonauts move between space environments, they necessarily *feel* the difference in gravity, even if they do not introduce artificial gravity. For a journey to the moon, they move from 1 G to 0 G, from 0 G to one sixth G and when they return, vice versa.

While there are many reports from the third person point of view, records of experiences described from first person accounts are not many. Thus, collecting and mapping the astronauts' accounts will be important to the analysis of the space environment experience, as in the AAS COSMOS project mentioned in Chapter 2. In 1969, Astronaut Peter Conrad, for example, talked about the moon

walk: "Did you ever see those pictures of giraffes running in slow motion? That's exactly what I feel like."¹⁴ Experiences about multi-gravity stand out when someone returns to their original environment. Astronaut Chiaki Mukai reports, "When I go to the zero-gravity world, my hands float in the air. That is most comfortable posture. If I want to put my hands on my knees, I get tired because I have to use muscles. When I came back to the Earth after a two week stay in the zero-gravity environment, it was fresh pleasure to see things fall, to feel that I can put my hands on my knees, which were floated until while ago" (Tachibana 2007, 113).

Between 1G on the ground and micro-gravity on the ISS, we can assume plural gravity space environments (one-sixth gravity on moon; one-third gravity on Mars; variety of gravity made by centrifuge) and corresponding lives. Scientists also started to address such questions. On July 1, 2019, JAXA published web news titled "World's first long-term habitation of mice on the International Space Station in a gravitational environment simulating the Moon! — A first step toward expanding human activities into deep space" and they explain as follows: "You may believe that the entire space is "zero gravity." The fact is not like that. The gravity on the Moon is about 1/6 of that on the Earth"¹⁵. On this website, videos show astronaut mice accessing the food bar in a micro-gravity environment, moon gravity environment (artificial 1/6), and artificial Earth gravity environment (artificial 1G). There are also links to articles of scientific inquiry regarding these experiments.

As far as I know, art experiments regarding such multi-gravity space environments have not yet been executed in earnest (cf. Fig. 5).¹⁶ The conditions stretch our imaginations: If an art project team such as AAS addresses the issue, what results are achieved? For example, if we refer to the ideas of *Mind Garden (Kokoronoba)*, which was conceived based on the assumption of a microgravity environment, and if we try to adapt such ideas to multi-gravity environments, we will unearth deeper questions. What do living organisms feel in multi-gravity environments? If gravity is stronger, time passes more slowly, and if gravity is weaker, time passes more quickly, as the theory of relativity teaches us; therefore, what is the relation between time and mind in multi-gravity environments? There are a variety of physical times depending on the gravity, on the one hand, and a variety of psychological times depending on bodily-mentally conditions, on the other. Are there multiple combinations between the two sides' relative times? Or, is there an absolute time which includes both sides' relative times? The question, "is duration one or many, and in what sense?" (Deleuze 1966, 75 /76) may lead us to a new reality in the inter-space age.



Figure 5 and 6: Sketches for *Space Bonsai* 2019.¹⁷

Conclusion

The “Pilot Mission” artists attempted to determine the conditions of experiences in micro-gravity space environments such as ISS (e.g., COSMOS Project), in particular, convert such experiences into specific media, and give them concrete form (e.g., KOKORO Project). In this sense, artists are aestheticians who wish to develop meta experiential thought experiments based on concrete experiences as well. If thought conditions change, for example, from micro-gravity to multi-gravity, artists will address the issue differently.

As early as 1994, astronaut Mukai spoke about a multi-gravity cultural sphere. “I have a far-reaching dream: When space colonies will be constructed in the future, I would like to build a large space hospital and make it rotate. Thus, in the central part of that hospital, the gravity will be zero, and as we go toward the outside, gravity becomes stronger by the centrifugal force. In such a hospital, the following treatments might be possible: A person who receives treatment stays in a 0.2 G or 0.3 G area at first. If he / she could live there without serious problems, he / she moves to a 0.5 G area; then, to a 1 G area; and finally, returns to the Earth (...) as a matter of a fact, we do not know if 1 G is really the optimal gravity level for all living organisms (...). In that sense, too, we have to study how the living organism feels the gravity” (Tachibana 2007, 135–137).

- a) What will specific technologies provide us? Will it conceive how to approach life with the relevant technologies or in such technologies? (Future).
- b) Examine what the relevant technologies can do currently (Present) and conduct experiments using these technologies.
- c) Based on the experience of b), return to a) and conceive a new vision for the future (cf. Akiba 2011, 137).

Mukai shows us circulation above. The interview was held after her first stay at the space shuttle as a payload specialist of STS-65 (1994) and she conducted 56 experiments aimed at researching how living organisms are influenced by space environment. With concrete experience concerning these experiments, she thought about future. Although we do not yet have the ability to go to space ourselves, we can also succeed in investigating the questions that Mukai proposed.

The theoretical limit of extending our sensibility to space is estimated at 93 billion light-years diameter by contemporary cosmology, if nothing can travel faster than the light speed. Although we cannot transgress this limit, our range of sensory-motor schema is increasingly becoming wider by the use of technologies like the telescope and space probes. Due to this, the number of space environments will increase. How will our thoughts, sensibilities, and lives change? While we could introduce only a few aspects in this paper, proposing questions regarding inter-space life and analyzing it in collaboration with artists who can sensualize it in their own way and researchers in other genres is one of the concerns of aesthetics. Analyzing and focusing on our present state and prospective future life will be our role.

Author Biography

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Notes

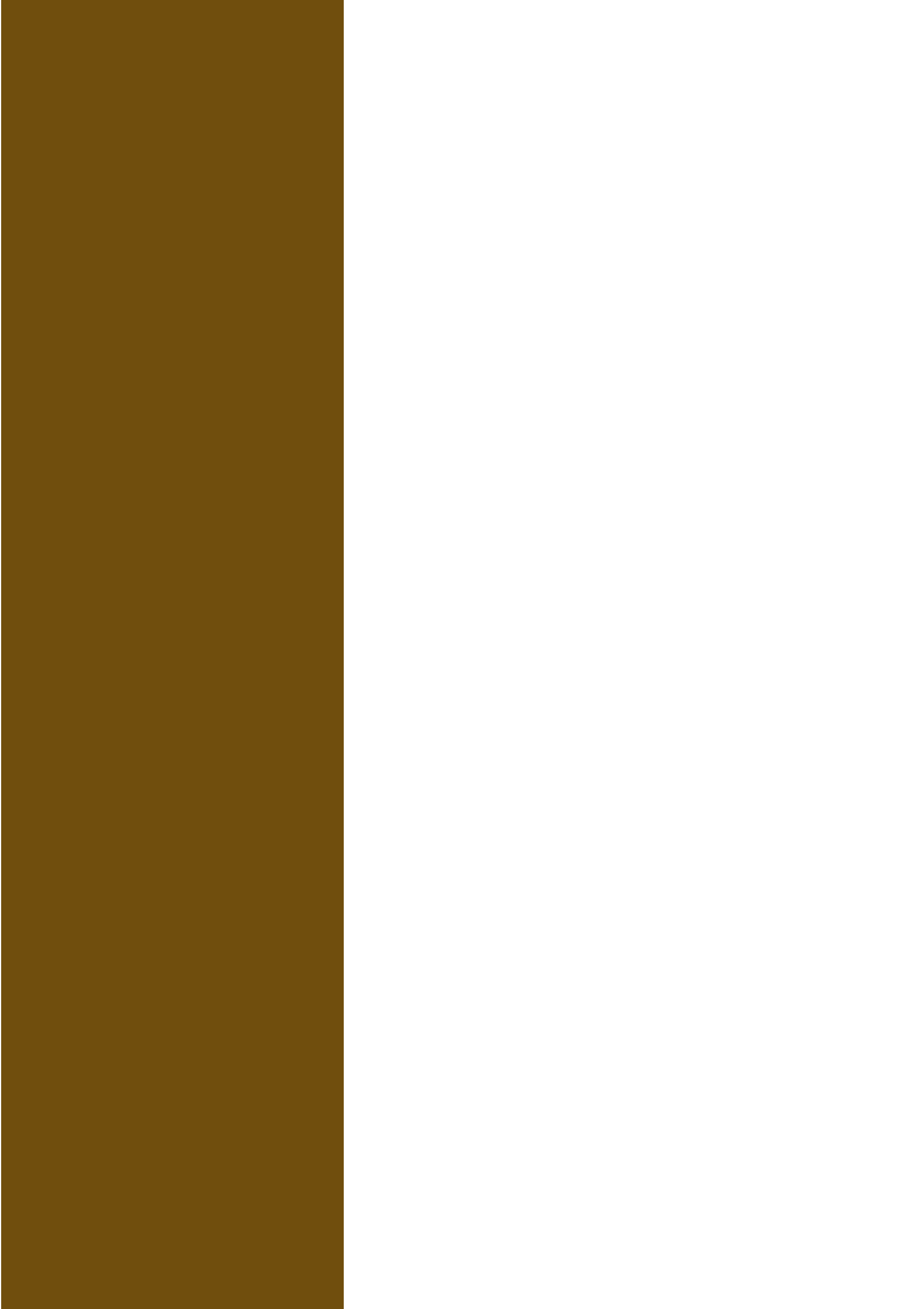
1. Hereafter, I use the page numbers of the original texts and the corresponding page numbers of the English translation.
2. Please refer to National Space Society, "Space Colony Art from 1970s," <https://space.nss.org/settlement/nasa/70sArt/art.html> (accessed November 16, 2019); Johnson et al. 1997; Scharmen 2019.
3. "NASDA/JAXA pursued Japan's original purposes in selecting the experiments for the utilization of the Japanese experiment module "Kibo" and named the missions the "Pilot Missions of Utilization for Culture/Humanities and Social Sciences." The objectives of this approach were to "understand the essentials of the space environment," explore "the significance of the existence of humankind in space," and make "a new attempt to 'integrate' technology and the Humanities and Social Sciences using the space environment." (JAXA 2016a, 4-1) Research on the "Pilot Mission" began with an invitation and proposal from "science" to the "humanities and social sciences", including the "arts." (cf. Iwaki 2015, 2).

4. <http://www.spacearts.info/en/db/categories.php> (accessed November 16, 2019)
5. See JAXA 2016a. Exceptionally, artist Takuro Osaka (Tsukuba University) mentioned the Western context of "space art" in his own report recorded in JAXA's report. Please refer, for example, to JAXA 2016b, pp. 11–41.
6. Translated from Kyotoichiritsugeijyutsudaigaku and Uchuukokuukaihatsukikou 2005a.
7. Accessed November 20, 2019, http://aas.kcu.ac.jp/cdrom/AAS_JAXA/AAS2001-2003/mindgarden/mindgarden_p4.html
8. Kyoudoukenkyuusaishuuseikahoukokusho: Uchuu eno Geijyutsuteki apurouchi (Final Report of Joint Research: Artistic Approaches to Space), http://aas.kcu.ac.jp/cdrom/AAS_JAXA/AAS2001-2003/mindgarden/mindgarden_p3.html (accessed November 20, 2019)
9. The second public briefing, "Mind of Universe, Mind of Earth" (2), was held on November 22, 2004, at Kyoto City University of Arts. The author also attended such events in the audience as a student.
10. Translated from: Kyoudoukenkyuusaishuuseikahoukokusho: Uchuu eno Geijyutsuteki apurouchi (Final Report of Joint Research: Artistic Approaches to Space), http://aas.kcu.ac.jp/cdrom/AAS_JAXA/AAS2001-2003/mindgarden/mindgarden_p6.html (accessed November 20, 2019)
11. Astronaut Takao Doi reported in an interview held by the AAS, "When I kept my eyes closed in zero-gravity, bodily (physical) feelings withered in progression. I then felt as if my spirit itself was floating in the air. This could be like the feeling of an out-of-body experience. There was no connection between such experiences and religion" (translated from Kyotoichiritsugeijyutsudaigaku and Uchuukokuukaihatsukikou 2005b, 11). Concerning floating sensations, near-death experiences, sensory deprivation, and virtuality and art, please refer to Iwaki, 2013.
12. Accessed November 20, 2019, http://aas.kcu.ac.jp/cdrom/AAS_JAXA/AAS2001-2003/mindgarden/mindgarden_index.html
13. See also, "Gravity Simulation Techniques," YouTube video, November 20, 2019, <https://www.youtube.com/watch?v=U1CUhz0U-Gc&t>
14. Astronaut Alan Bean talked about it later: "I've paid close attention when PBS or Discovery Channel show giraffes and other animal running, especially in slow motion. I think now we moved less like giraffes and even more like gazelles, at least that's how it felt to me." Please refer to "Alan Bean Gallery." <http://www.alanbeangallery.com/giraffes-story.html> (accessed November 20, 2019)
15. JAXA, "World's first long-term habitation of mice on the International Space Station in a gravitational environment simulating the Moon! -- A first step toward expanding human activities into deep space." http://iss.jaxa.jp/en/kiboexp/news/190701_mhu-4.html (accessed November 20, 2019)
16. Simulators such as moon walk simulators in some science museums are useful for the public to experience multi-gravity. See "Saga Pref. Space and Science Museum." <https://www.yumeginga.jp/> to learn more about this bodily experience. In terms of art projects, Naoto Fujimoto's Immersive Shadow: Moon (2017) is an interactive artwork simulating 1/6 G on the Moon, for example. The "Mars Gravity Biosatellite" program (2001–2009) is not an art project, but it looks like conceptual art, Vimeo video, November 20, 2019 <https://vimeo.com/169923238>
17. The sketches were drawn by media artist Koichi Mori, a member of the Space Bonsai Project. After listening to my presentation on multi-gravity space environments and aesthetics, the artists (Mori and media artist and programmer Takehisa Mashimo) began to plan to create a virtual simulator to nurture Space Bonsai under the influence of various gravities and print results on a 3D printer. Art and media researcher Yosaku Matsutani gave a presentation about this project to Art Support Kansai Nippon Dentsu Media Art Aid Fund, which will support the project. The Exhibition will be held February 2020 in Kyoto, Japan. If other artists are interested in multi-gravity space environments, they may propose completely different works. I hope aesthetician could act as a culture medium of the ideas for creation.

Bibliography

- Akiba, Fuminori, *Atarashiibigakuwotsukuru*, Tokyo: Misuzu Shobo, 2011.
- Clément, Gills and Angelia Bukley eds., *Artificial Gravity*, California: Microcosm Press and New York: Springer, 2007.
- Clément, Gills R., Angelia P. Bukley and William H. Paloski, "Artificial Gravity as Countermeasure for Mitigating Physiological Deconditioning during Long-Duration Space Missions," *Frontiers in Systems Neuroscience* 9 (June 2015): 9-92.
- Deleuze, Gilles, *Bergsonisme*. Paris: Minuit, 1966. *Bergsonism*. Translated by Hugh Tomlinson and Barbara Habberjam. New York: Zone Books, 1991.
- Deleuze, Gilles, *Cinéma 1. L'image-mouvement*. Paris: Minuit, 1983. *Cinema 1: The Movement-image*. Translated by Hugh Tomlinson and Barbara Habberjam. Minneapolis: University of Minnesota Press, 1997.
- Gibson, James J., *The Ecological Approach to Visual Perception*, Hillsdale, N.J.: Lawrence Erlbaum Associates, inc., Publishers, (1979) 1986.
- Hewes, Donald E. and Spady, Jr. Amos A., *Evaluation of a Gravity-Simulation Technique for Studies of Man's Self – Locomotion in Lunar Environment*, Washington, D. C.: NASA, 1964. Report number: NASA TN D-2176.
- Iwaki, Akihisa, "Body as an Image Processor", in *Diversities in Aesthetics: Selected Papers of the 18th Congress of International Aesthetics*, edited by Gao Jianping and Peng Feng, 213-223. Beijing: Chinese Society for Aesthetics, 2013.
- Iwaki, Akihisa, "Bodily Experience and Life in a Microgravity Environment: Thinking with Space Art", *Proceedings of ICA 2016 "Aesthetics and Mass Culture"*, 556-561. Seoul: The Korean Society of Aesthetics, 2017.
- Iwaki, Ken'ichi, *Aato wa Uchuu de naniga dekiru noka: ISS 'Kibou' ni okeru Kyotoichiritsugeijyutsudaigaku ASS niyoru Jikken (How Can Art Open up its Possibilities in Space? On the 'fantastic' experiments by the AAS (Artistic Approaches to Space) of the Kyoto City University of Arts)*, JAXA, 2015. Retrieved November 20, 2019, from <https://repository.exst.jaxa.jp/dspace/handle/a-is/236435> Report number: JAXA-SP-14-005.
- JAXA, *Uchuubunkanosouzou: Ucyuuenobunka, Zinbunshyakaigakutekiapurouchi (Space Creation of Art: A Cultural, Humanistic and Social Scientific Approach to Space)*, JAXA, 2006. Retrieved November 20, 2019 from <https://repository.exst.jaxa.jp/dspace/handle/a-is/39499> Report number JAXA-SP-06-008.
- JAXA, *Report on the Pilot Missions of Utilization for Culture/Humanities and Social Sciences (Summary Report)*, JAXA, 2016a. Retrieved November 20, 2019 from <https://repository.exst.jaxa.jp/dspace/handle/a-is/559605> Report number JAXA-SP-15-011E.
- JAXA, *'Uchuunoningengaku'Kenkyukaikiroku (sono 3) (Report on the Study of Cosmo-Anthropology (Volume3))*, JAXA, 2016b. Retrieved November 20, 2019 from <https://repository.exst.jaxa.jp/dspace/handle/a-is/561718> Report number JAXA-SP-15-003.
- Johnson, Richard D., and Charles Holbrow. *Space Settlements: A Design Study*. Washington, D. C: National Aeronautics and Space Administration, 1977. Kindle edition.
- Kokusaikoutoukenkyuusho and Uchuukokukenkyuukaihatsukikou (International Institute

- for Advanced Studies, IIAS, and Japan Aerospace Exploration Agency, JAXA), *Uchuumondai eno Jinbunn Shakaikagakukarano Aprouchi*, Kyoto: IIAS, 2009. Report number: 0804, IIAS.
- Kramer, Larry A. et al., "Orbital and Intracranial Effects of Microgravity: Findings at 3-T MR Imaging," *Radiology*, Volume 263: Number 3 (June 2012): 819-827
- Kyotoichiritsugeijyutsudaigaku and Uchuukokuukaihatsukikou (Kyoto City University of Arts and Japan Aerospace Exploration Agency, JAXA), *Kyoudoukenkyuuusaishuuseikahoukokusho: Uchuu eno Geijyutsuteki aprouchi (sono 1): Shashin, Kiroku Shuu (Final Report of Joint Research: Artistic Approaches to Space (volume 1): Photographs and Memoranda)*, JAXA, 2005a. Retrieved November 20, 2019, from <https://repository.exst.jaxa.jp/dspace/handle/a-is/45110> Report number: JAXA-SP-04-015.
- Kyotoichiritsugeijyutsudaigaku and Uchuukokuukaihatsukikou (Kyoto City University of Arts and Japan Aerospace Exploration Agency, JAXA), *Kyoudoukenkyuuusaishuuseikahoukokusho: Uchuu eno Geijyutsuteki aprouchi (sono 2): Uchuuhikoushi Intabyuushuu (Final Report of Joint Research: Artistic Approaches to Space (volume 2): Astronaut Interviews 1998–2003)*, JAXA, 2005b. Retrieved August 20, 2019, from <https://repository.exst.jaxa.jp/dspace/handle/a-is/46542> Report number: JAXA-SP-04-016.
- Malina, Roger F., "Space Art as Public Art: The Artist as Space Researcher," in *Delicate Balance: Technics, Culture and Consequences*, 260–266. Los Angeles: IEEE, 1989,
- Murata, Jyunichi. *Chi no Seitaigakutekitenkai dai 2 kan, Gijyutu: Shintai wo torikakomu Jinkoukankyo (The Ecological Turn Vol.2, Technology: Life in the Artificial Environment)*, Tokyo: Tokyodaigakushupankai, 2013.
- NASA, *Fourth Symposium on the Role of the Vestibular Organs in Space Exploration*, Washington, D.C.: NASA, 1970. Report Number NASA-SP-187.
- Roberts, R. Donna et al., "Effects of Spaceflight on Astronaut Brain Structure as Indicated on MRI," *The New England Journal of Medicine*, 377 (18) (November 2017): 1746-1753.
- Scharmen, Fred. *Space Settlements*, New York: Columbia University, 2019.
- Tachibana, Takashi, *Uchuwokataru 1: Uchuuhikoushitonotaiwa*, Tokyo: Chuokoron-sinsha, 2007.
- Tokyogeijyutsudaigaku and Uchuukaihatsujigyoudan (Tokyo National University of Fine Arts and Music and National Space Development Agency of Japan, NASDA) eds., *Bishoujyuryokukankyou ni okeru Geijyutsuhyogen no Mirai: Uchuu to Ningen no Kakawari no Tankyuu ni mukete (Future of Artistic Expressions in Microgravity Environments: Toward Understanding of the Nature of the Relation between Humans and Space)*, NASDA, 2003. Report number: NASDA-TMR-030003. Retrieved November 20, 2019, from <https://repository.exst.jaxa.jp/dspace/handle/a-is/34354>
- Woods, Author, 'Art to the Stars: an Astronautical Perspective on the Arts and Space', Update: March 2019, https://www.arsastronautica.com/art_to_the_stars.php (accessed November 20, 2019).



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