Museums, audio-visual and digital media in a world of changing communication

Trends, innovations, examples

A publication of
ICOM AVICOM – The International Committee for Audiovisual, New Technologies and Social Media of the International Council of Museums
c/o Maison de l'UNESCO, 1 rue Miollis, 75732 Paris Cedex 15, France

Website: avicom.mini.icom.museum
Facebook: ICOMAvicom

Museums, audio-visual and digital media in a world of changing communication

Trends, innovations, examples

A collection of papers, presented in the AVICOM sessions
during the 25th ICOM General Conference
“Museums as Cultural Hubs: The Future of Tradition”,
Kyoto, 1-7 September 2019

Edited by Michael H. Faber

AVICOM

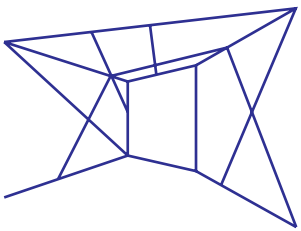
Norderstedt 2020

Bibliographic information published by German National Library
The German National Library catalogs this publication in the German National Bibliography; detailed bibliographic information can be found on the Internet website: http://dnb.ddb.de.

Production and Publisher: BoD – Books on Demand, Norderstedt

Book Design: Melissa Aguilar
www.meliaguilar.com

ISBN: 9783751904506



Cover design derived from the entrance space of the multimedia show of Pointe-à-Callière, Montréal. See contribution by Anne Elisabeth Thibault in this book.

ALTERNATIVE IMMERSION IN THE EXHIBITION SPACE

Melissa Aguilar

Immersive technologies may represent an effective path to transmit the existing traditions with a new perspective, but also, they might contribute to build new traditions that can be shared and experienced in creative ways. Museums, when accessed as cultural hubs, grow in participation, inclusion and experimentation, and, in this sense, have the potential to become open labs for the traditions of our future.

In this text, we are going to talk about audiovisual immersive tools to communicate with the exhibition and the public. I want to start communicating with you, by asking some questions:

Do you know what immersion is?
What examples of immersive technology can you give?
What characterizes these examples?

Virtual, augmented and mixed reality are immersive technologies rapidly developing, and are becoming tools that can lead to a much significant experience for the visitors in the exhibition space. But what other immersion enabling tools can become more accessible, and even be created by the public so that we can be more inclusive and really take in count the visions of our visitors? This research focuses on DIY and DIT initiatives to build electronic analogue devices to facilitate a more experimental visit to the exhibition, with the idea of enhancing visitors' perception from a multi-sensory approach.

Let's reflect briefly about the concept of immersion.
To be immersed means to be inside, integrated, surrounded or submerged into some kind of experience. But where did this idea come from? There are previous influences to the idea of immersion we have these days. Amongst these approximations

we find German composer Richard Wagner (1813 –1883), French symbolist poet Charles Baudelaire (1821 – 1867) and French playwright Antonin Artaud (1896 – 1948) propositions.

Wagner sets and implements the concept of Gesamtkunstwerk that is translated as Total Work of Art, Universal Work of Art or the Ultimate-highest Work of Art. (1) His thought was an innovative invitation against the canonic structure of Opera Theater in the mid XIX century. He believed that the Total Work of Art is one that appeals to all senses and uses music, dance and theater combined to reach its highest point. The term appears in his 1849's essay The Artwork of the Future (Das Kunstwerk der Zukunft) in the section where he wrote about dance, where he opposes to the isolation of the dance from other art forms, that without merging all arts, we would never reach the ultimate artistic manifestation.

Contemporary of Wagner, and also focused on challenging established artistic manifestations, Charles Baudelaire, externalized his interest in an art that connected all senses by using the idea of synesthesia in his poems. (2) To Baudelaire, synesthesia resides in the premise that all senses can and should intersect, implying an amplified sensory perception integrated in an artistic experience, bringing us closer to the idea of immersion.

The proposal of the Theater of Cruelty of Antonin Artaud (3) breaks with the basic notions of theater that was known back in the 1930's focusing on enabling a completely new experience, one that is conscious and harmonious. The first Manifesto of the Theater of Cruelty proposes to seek and create new mediums to store language that might be new forms of musical transcription, or some kind of code; new sounds, therefore new instruments and research about the characteristics and vibrations of sounds, as well as experimenting with other materials and alloys (researching and experimenting on many levels: from intuitive and sensory to even a chemical-molecular level).

He also proposes the exaltation of gestures and emotions through physical - object aided - techniques with reflections, mirrors, and

masks and to even assign an intellectual precise meaning to light. In his vision laid a total significance and intention behind every single element, everything has a specific purpose to keep the attention of the spectator.

In short, Artaud brings us closer to the idea of immersion through the intention of taking the sensitivity of the audience to a state of deep and sharp perception, representing actions that enhance, enchant and surprise founded in experimentation with new material and immaterial objects.

Taking in count the three postures from Wagner, Artaud and Baudelaire, we can trace intersections in the models in the following points of contact:

- They talk about a total integration of artistic and sensory techniques.
- Their ideas imply a rupture with pre-established forms to lead to innovations new forms.
- They appeal to the creation of new more experimental and expressive languages
- They invite to the transformation of the audience from passive viewers to active participants.

These intersections also relate to the premises of the concept of immersion that contemporary audiovisual media refers to:

- Immersion actively commits the senses, stimulating not only sight but also other senses (usually hearing)
- Deep absorption in the experience no matter the setting
- It is local, meaning, that it adapts to the space and has no static architecture.
- Draws away from “normal” and envelopes the spectator who also becomes part of the work
- There is interactivity and intimacy, regarding the interest to have active audiences and readers (Baudelaire’s case) that not only receive the information but more that have a significant and participatory emotional response.

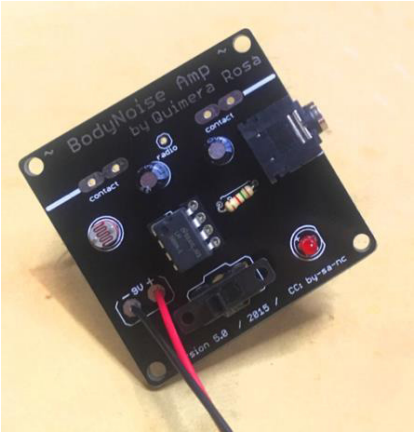


Fig. 1: Body Noise Amp device

This ongoing research shows open source devices created in collective workshops taught by a variety of people that believe in open knowledge, practice based research and inventive work. They require a tactile connection to get a sound output and in some cases, group action to activate them. By interacting with them, the user may have a connection with the exhibition that focuses the attention in other senses, rather than sight. They are also considered as immersive-enabling devices, since they have features that correspond to the characteristics previously stated.

An example of this kind of devices is the Body Noise Amp. This electronic device, designed by Quimera Rosa Collective (BCN) (4) is a low voltage amplifier that uses the integrated circuit LM386 to transform electricity from bodies to noise (sonic output). The artists, use the device in their performance practice, and also teach workshops to build the Body Noise Amp, since it is an open source object, it can be used, changed and remixed as desired.

After a workshop called TRANS*PLANT with Quimera Rosa in Mexico City, during the Cyborgrrrls Techno feminist Meeting on 2018, the author of this research found that the BNAmp could also be used as a tool to experiment in the exhibition space, with art objects that include electricity in them.

The device was used in the individual exhibition of Mexican artist Jaime Lobato, *Transmutación: Alquimias del Espacio*

(Transmutations: Alchemy of the Space), at Laboratorio Arte Alameda, Mexico City in 2018. (5) According to the exhibition catalogue "*Transmutations: Alchemy of the Space* enhances the acknowledgement of the other and allows to re-write its own history, transmuting his conceptions and activating unknown perceptions". Through the usage of a non-commercial, open source, hand crafted device, we seek an amplified and-or unknown perception in Lobato's work, as well as an unconventional interaction in the exhibition space.

After a walk through the exhibition, the Body Noise Amp was tried in two artworks: *Mudras* and *Iceberg* - selected within the totality of the show - with the hypothesis that, due to their characteristics, there would be a possible interaction between the device, two people and the artwork.

Mudras (Leap Motion tridimensional sensor, digital algorithms and octophonic sounds. 2017), is an artwork that is activated by the interaction of visitants. It consists of an audiovisual projection in real time, generated by a gesture recognition algorithm that responds to hand movements through a tridimensional sensor and emits bell sounds.

The work was "created for the choir of Laboratorio de Arte Alameda (which used to be a catholic temple) as a bridge between interior world of the visitor and the museum space, unifying them as resonance instrument" according to the exhibition catalogue.

Iceberg (water, quadraphonic sound, ABS plastic, webcam. 2016) is an interactive sculpture where the visitor is invited to perceive the shape of an object through touch and hearing.

This piece consists of a cube filled with water and a movement sensor connected to speakers; people is invited to submerge their hands in the water and move them to activate sound in the room that resembles a waterfall or sea tides - a description to explain the brown noise algorithmically programmed. The movement of the hands creates a unique tide, as if the human hands would be

the Moon, with the power to change the tides and consequently changing the sound contained in the 70 x 70 cm cube and amplified through the entire room.

Through the experiment, three questions where kept in mind: How do we play with the Body Noise Amp? What was the result? How did the original intention of the artwork changed?

Our bodies have to move in a certain way to channel and modify sound with the BNAmp. The interactions communicate something without words, using gestures, movements and body language to affect the sound, instead. In this case, touch is the way of communicating: depending on how the second person touches the first the sound, frequency and tone of output changes. Sound will be varying in *Mudras* depending on the hand gesture. Movement creates invisible ephemeral architectures when it comes to a sound improvisation in this case. Through playing, there is an exploration of the programed algorithm and the specter of waves that the BNAmp and human body captures and emits.

After the dynamic, it was found that the intensity (volume) of the pieces should be modulated and better amplification for BNAmp should be connected, in order to achieve a better synergy between both objects and participants.

Body Noise Amp is a device with the possibility of interacting with other bodies or sonic interfaces, it is versatile to be connected between people and objects, therefore, becoming ideal to experiment in alternative immersion and participation in the exhibition space.

Exhibitions containing audiovisual and haptic works, like *Transmutations: Alchemy of the Space*, are ideal for trying alternate immersion. Currently, this research is looking for exhibitions that encourage participation, collective experimentation and deep listening as well as haptic abilities to keep testing and creating more prototypes and devices like the BNAmp.

From top to bottom: Fig. 2: Mudras sensor and BNAmp in the Choir of Arte Alameda \ Fig. 3: Visuals projected on wall, Mudras' sensor and BNAmp testing \ Fig. 4: Melissa Aguilar and Jaime Lobato testing the circuit in Iceberg

In a broader level, this kind of practices look to disrupt the traditional museum system in order to enhance the perception of the public in a more experimental way aiming to reach an equilibrium between the museum's view and the visitor's view. This idea promotes the imagining of alternate and personal narratives and sharing these multiple visions using creative, ludic, and hands-on strategies that might lead to new traditions in the museum field.

References

1) Cf. WAGNER, Richard 1849: The Artwork of the Future. (Germany: Richard Wagner Prose Books) p. 35.
2) Cf. BAUDELAIRE, Charles 1861: Richard Wagner et Tannhäuser à Paris. In: Revue Européenne, April.
3) Cf. ARTAUD, Antonin 1958: Theater and its Double, Grove Press, New York, pp. 89-100.
4) http://quimerarosa.net
5) Cf. LOBATO, Jaime 2017: Transmutación: expo Individual [https://www.jaimelobato.com/es/expo-individual/]

Bibliography

ARTAUD, Antonin 1958: The Theater and its Double, Grove Press, New York.
BAUDELAIRE, Charles 1861: Richard Wagner et Tannhäuser à Paris. In: Revue Européenne, April.
BENJAMIN, Walter 1989: La obra de arte en la época de su reproductibilidad técnica. Discursos Interrumpidos, Taurus, Argentina, p. 24.
BERGERON, Anne, TUTTLE, Beth. 2013: Magnetic: The Art and Science of Engagement, AAM Press, USA.
DESVALLES, Andre, MAIRESSE, François 2010: Conceptos claves de museología, Armand Colin, France.
DUFFY, Patricia Lynn 2013: Synesthesia in Literature, Oxford Handbooks, Great Britain.
NAJMANOVICH, Denise 2008: Mirar con nuevos ojos. Nuevos paradigmas en la ciencia y pensamiento complejo, Biblos, Buenos Aires.
NORRIS, Linda, TISDALE, Rainey 2014: Creativity in Museum Practice, Left Coast Press, USA.
PIAGET, Jean 1952: The Origins of Intelligence in Children, International Universities Press, New York.
SCHMITT, Daniel 2006: Pour une Aproche Enactive de la Museologie. In: ICOFOM Study Series 44, France.