The **computer artefact**: a central element in digital media art research

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Reference Articles:

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Foundations: the Pioneers (Dada)

DADA characteristics:

- ✓ unconformity with accepted rules and conventions.
- ✓ scandal was the leitmotiv **to shock their audience into self-awareness**
- ✓ embraced chaos (anti logic) and irrationality
- ✓ presented as anti-art
- ✓ certain form of **nihilism (**an extreme form of skepticism that denies all existence**)**
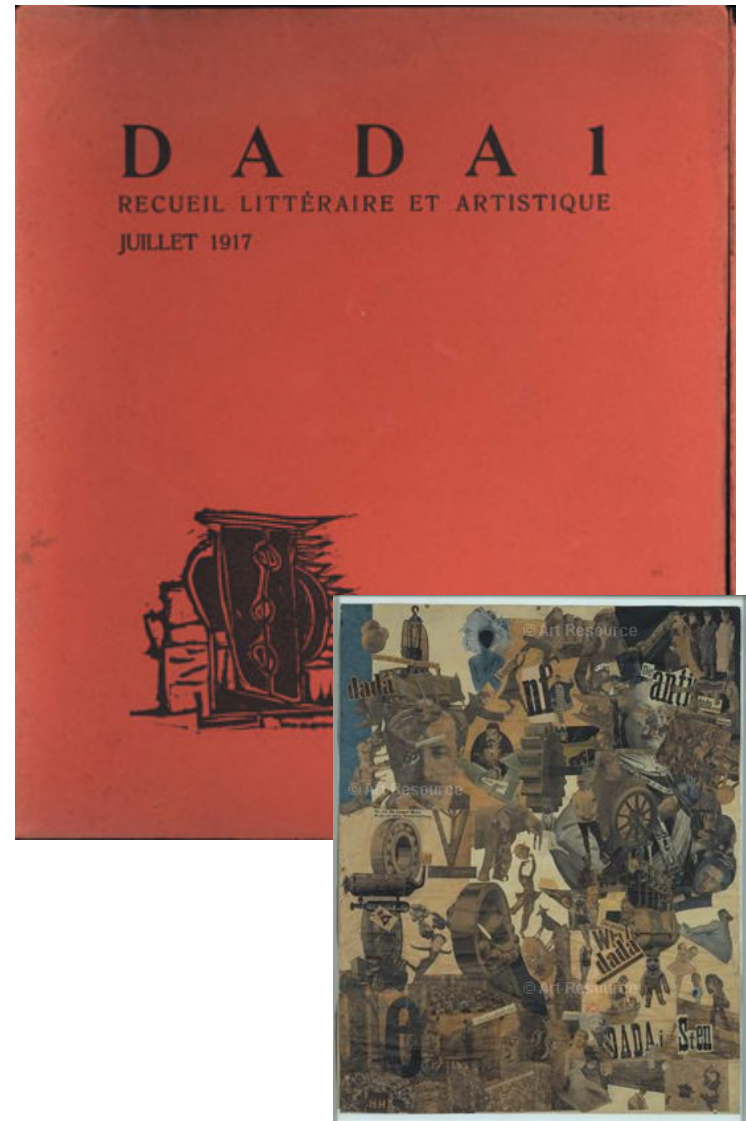

"Fountain", by Marcel Duchamp

Foundations: the Pioneers (Dada)

Dadaists adopted the principles of <u>abstraction</u>, <u>spontaneity</u> and <u>chance</u> and employed the technique of collage and odd juxtapositions of image and text to create a sense of the absurd.

Dadaists were united not by a common style, but by their <u>rejection of conventions in art and thought</u>.
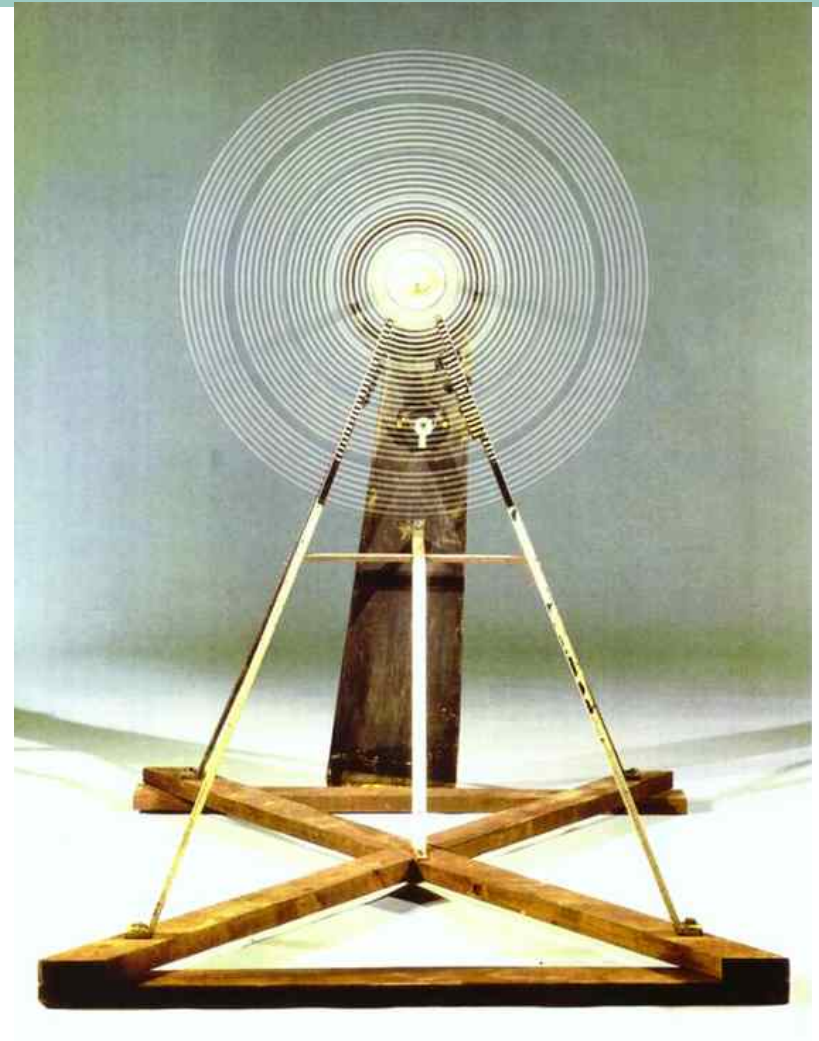
Foundations: the Pioneers (mixed)

"an interactive machine that invited users to interact with concentric rotating glass plates to generate visual effects"

Main Characteristics:

- <u>interactive</u>

- <u>spontaneous and dynamic</u>

- <u>appealing for other senses</u>

"Rotary Glass Plates", by Marcel Duchamp & Man Ray (1920)

Foundations: the Pioneers (Conceptual Art)

Conceptual art: the ***idea or concept is the most important aspect of the work***.

- <u>concept is king</u>
- <u>not necessarily aesthetic</u>
- <u>appealing to other senses</u>

"One and Three Chairs", by Joseph Kosuth (1965)

Foundations: the Pioneers (Fluxus)

Fluxus art movement has extensively explored the idea of **instruction-based generated** art along with the **immersion of the audience** in the event, forcing an *interaction* between the spectator and the artworks
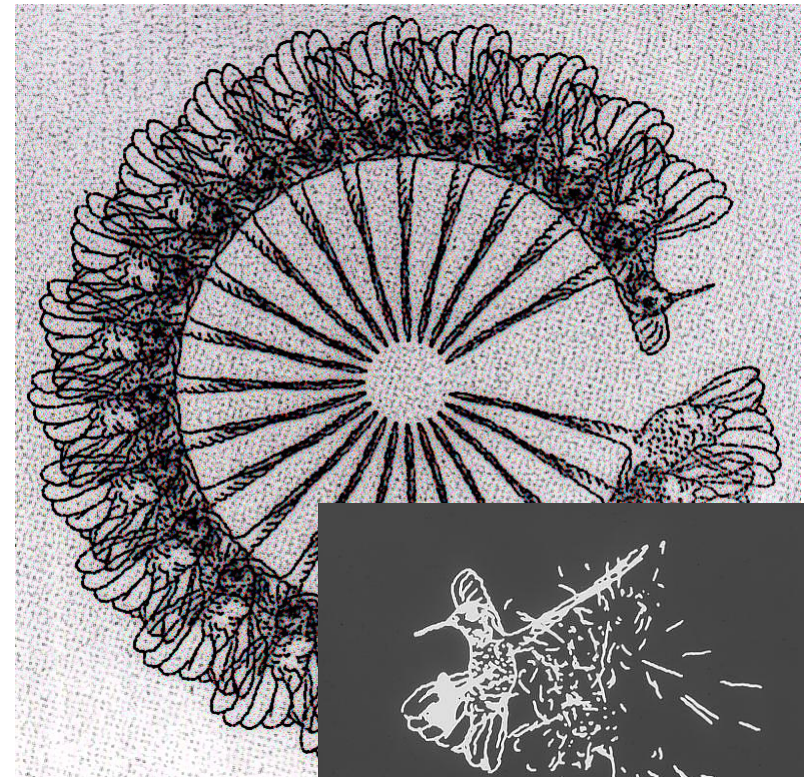

"Musique télépathique n° 5 (Telepathic Music #5)", by Robert Filliou (1978)

Foundations: the Pioneers (mixed)

Art as "experimental research in ***computer-generated transformations*** of visuals through mathematical functions."

The hummingbird is a good example of computer-generated animation.

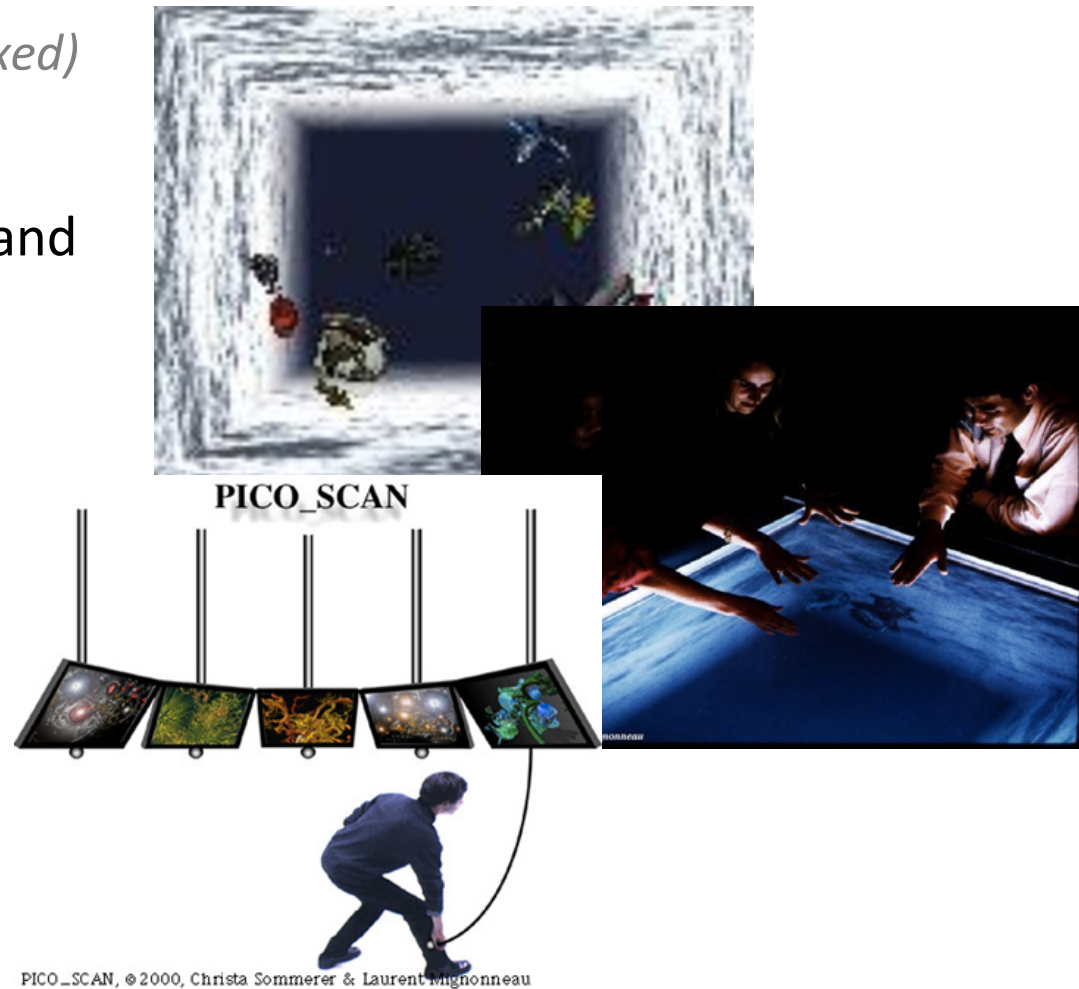

"Hummingbird", by Charles Csuri (1967)

Foundations: the Pioneers (mixed)

"Art as a living process" and "artificial live" as art

Pioneered the today's artificial live artworks

"AVolve" (1994), "Pico-Scan" (2000), Sommerer & Mignonneau

Digital media art' differential characteristics

Lessons Learned: Digital Media Art' Differential Characteristics

✓ From Latin *arte factu-* «made with art»

✓ Art and culture are social phenomena, resulting from social interaction, as well from individual and collective imaginary manifestations, that together establish a common **_communicational and informational space_** embracing **_artefacts_** said to be cultural and artistic.

✓ These **_artefacts_**, where some are possibly non-tangible, constitute, in fact, the resulting product from the artistic and cultural phenomenon. They are expressions of our imaginary.
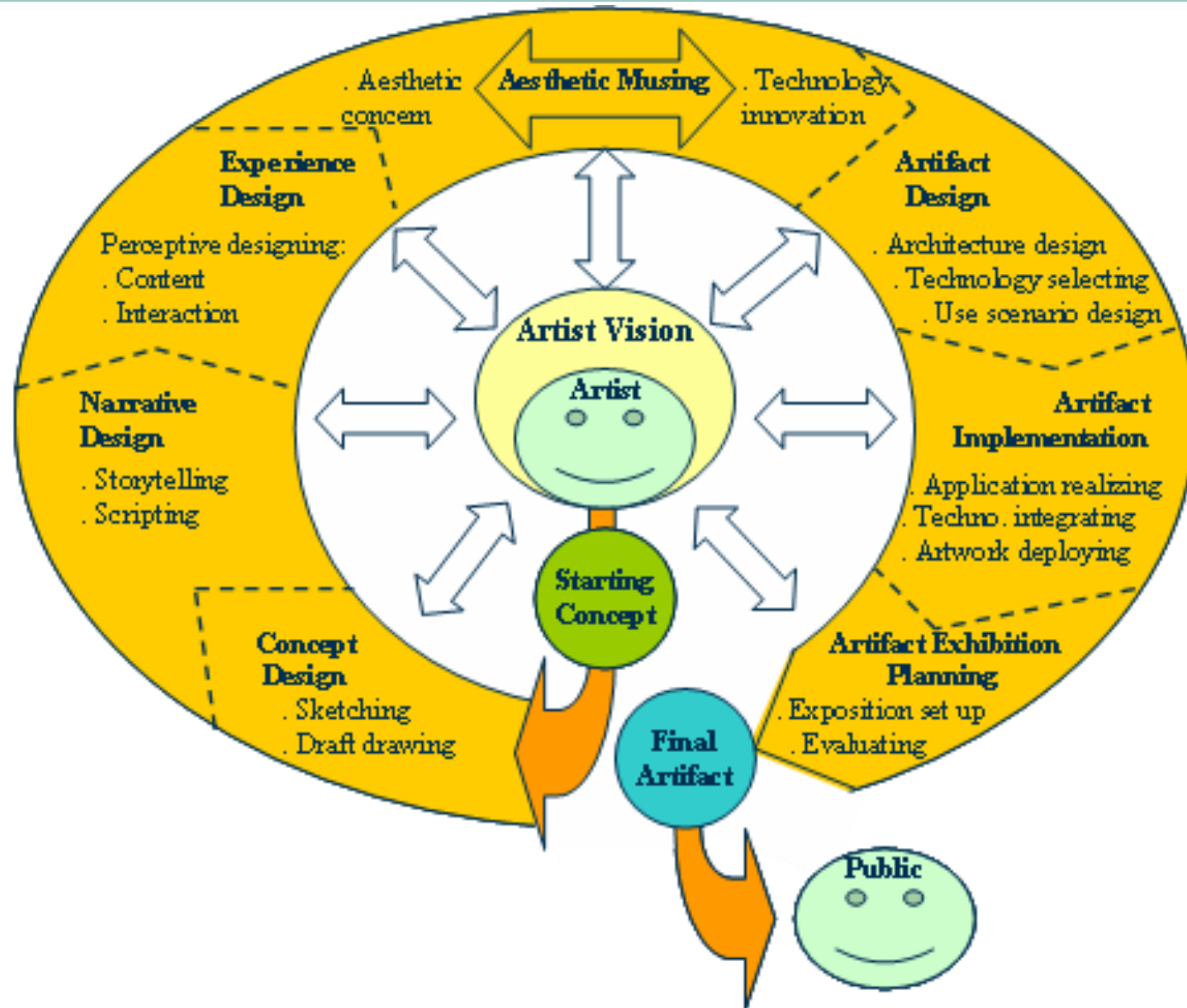
Lessons Learned: Digital Media Art' Differential Characteristics

- ✓ The digital medium is defined here as the ***set of digital/computer technologies ranging from digital information formats, infrastructures to processing tools*** that together can be taken as a continuum art medium used by artists to create digital **artefact**s.

- ✓ Digital media art applies the digital/computer medium ***both as raw material*** (e.g. information content) and ***as a tool*** to enhance creativity.

Lessons Learned: Digital Media Art' Differential Characteristics

- ✓ ***Art objects*** or ***Artefacts*** might be described as ***symbolic objects*** that aim at stimulating emotions.
- ✓ They ***reach us through our senses*** (visual, auditory, tactile, or other).
- ✓ They ***are displayed by means of (un)physical material*** (stone, paper, wood, mechanics, electronics, digital, etc.) and combine some patterns to produce an aesthetic composition.
- ✓ Their creator intends ***to convey some message, offer a certain experience***, normally to suggest some state of mind or ***to induce an emotion*** and the consequent feeling.

Lessons Learned: Digital Media Art' Differential Characteristics

The **digital media art's creation process** relies mainly on:

✓ *Collaborations between artist(s) and a **multidisciplinary team**, from art, science, technology, design, etc.*

✓ **Design of the artefact's message and its development**. The digital/computer medium is always present and traversing the overall creation process.

It is a **non-linear process**!

Lessons Learned: Digital Media Art' Differential Characteristics

The process of developing the computer/digital components of the artefact follows, to a large extent, the <u>*procedures adopted*</u> *in the* <u>***development of small and medium-scale computer systems and applications***</u>.

Lessons Learned: Digital Media Art' Differential Characteristics

*However, contrary to the traditional design process where the solving of a problem guides the designer's action, in **<u>digital media art the systematization does not appear primarily for such purpose</u>**, but rather **<u>to enhance a meaningful experience of aesthetic contemplation</u>** that comes from the creation/fruition of the artefact.*
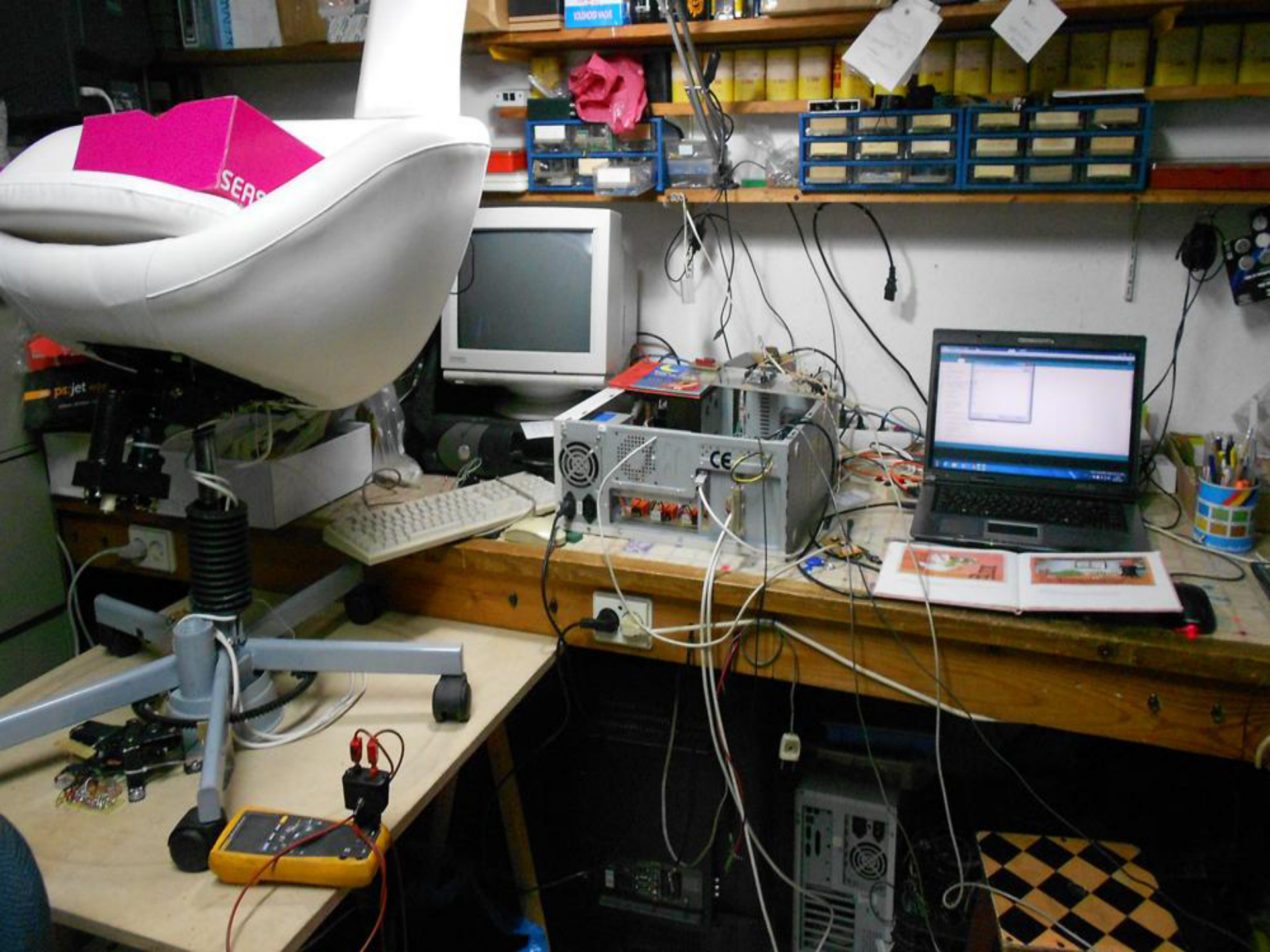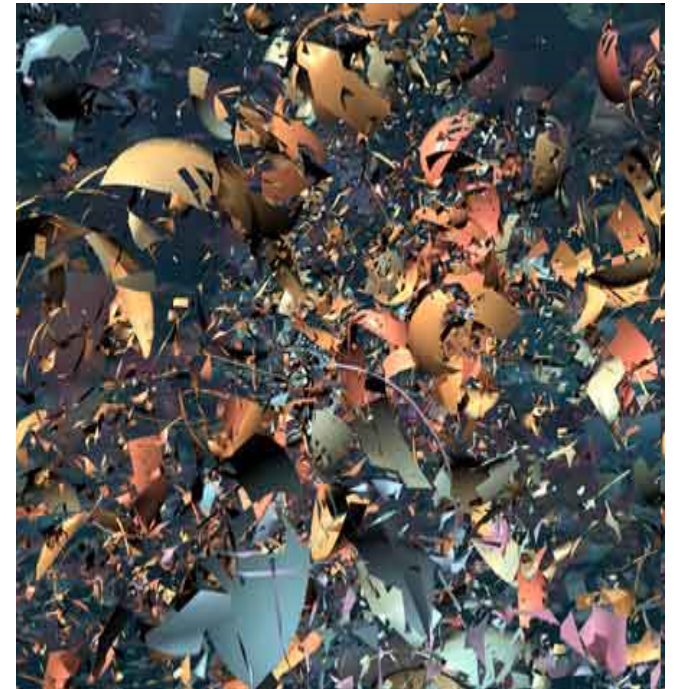
Research in digital media art

What is research in arts

It looks for **new knowledge** of the following nature:

✓ **Aesthetics Thinking** or **Aesthetics Narratives**;

✓ **New/Amplifications of Meanings**;

✓ **Thoughts** and **Perspectives of Seeing;**

✓ **Artistic Experiences**, **Practices**, **Techniques**, **Approaches**, etc.

That has to be **understandable** (comprehensive) and **demonstrable** to others; **supported in evidence**, **replicable**, and **defendable before peers** (or a examination panel)!

"Fragmentation", de Charles Csuri (2008)

Lessons Learned: research approach in Digital Media Art

The artist-researcher **immerses** in a journey of **intense reflection**, resulting from:

- ✓ the **gradual maturation** of his/her primordial vision (theoria);

- ✓ the **practical experimentation with technologies and materials** (praxis)

- ✓ and the **materialization of prototypes** of and of the artefact itself (poesis);

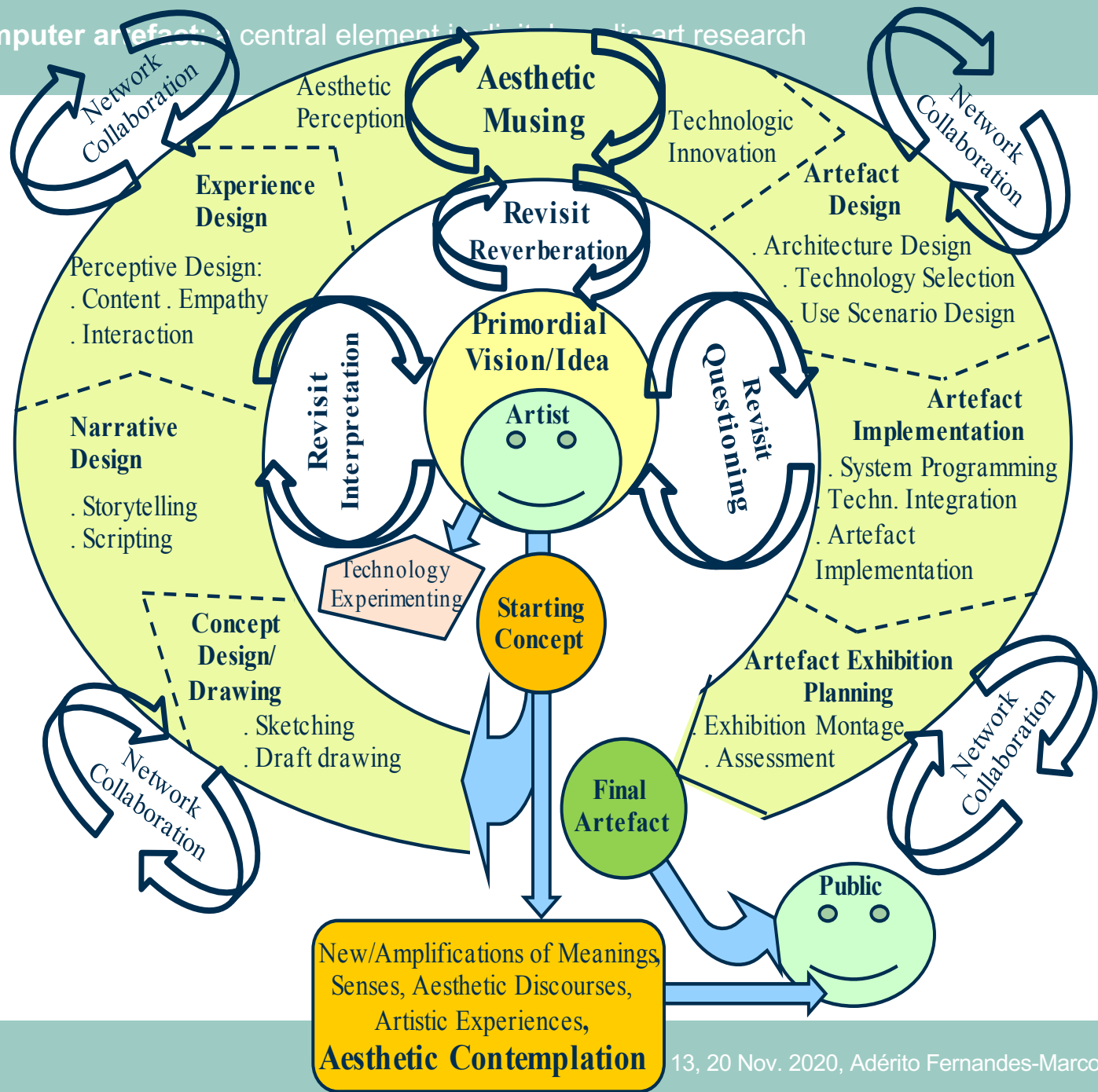- ✓ while in the scenario of exhibition, use and enjoyment.

"ARBOR", de Ana Marques e Rui Gaspar (2016)

It is a journey **full of inner conflicts and questioning**, in relation to the process, the materials, the primordial idea and the public**.**

Lessons Learned: research approach in Digital Media Art

➢ Thus, research in digital media art is essentially a **practice-based approach** following the creation cycle, thus, **around the set up of the Artefact**(s)

➢ The **deeper the process of reflection-experimentation-construction** (materialization) carried out at the appropriate times, which include pauses and periods of intense activity, **the greater the propensity** to achieve results to reach high **aesthetic quality** in the perspective of the experience provided and of the <u>reflections realized</u>, thus of the **research results obtained**.

Network Collaboration

Aesthetic Perception

Aesthetic Musing

Technologic Innovation

Network Collaboration

Experience Design

Perceptive Design:
. Content . Empathy
. Interaction

Artefact Design

. Architecture Design
. Technology Selection
. Use Scenario Design

Revisit Reverberation

Primordial Vision/Idea

Revisit Interpretation

Revisit Questioning

Artefact Implementation

. System Programming
. Techn. Integration
. Artefact Implementation

Narrative Design

. Storytelling
. Scripting

Artist

Technology Experimenting

Starting Concept

Concept Design/ Drawing

. Sketching
. Draft drawing

Artefact Exhibition Planning

. Exhibition Montage
. Assessment

Network Collaboration

Final Artefact

Network Collaboration

Public

New/Amplifications of Meanings, Senses, Aesthetic Discourses, Artistic Experiences, **Aesthetic Contemplation**

The **computer artefact**: a central element in digital media art research

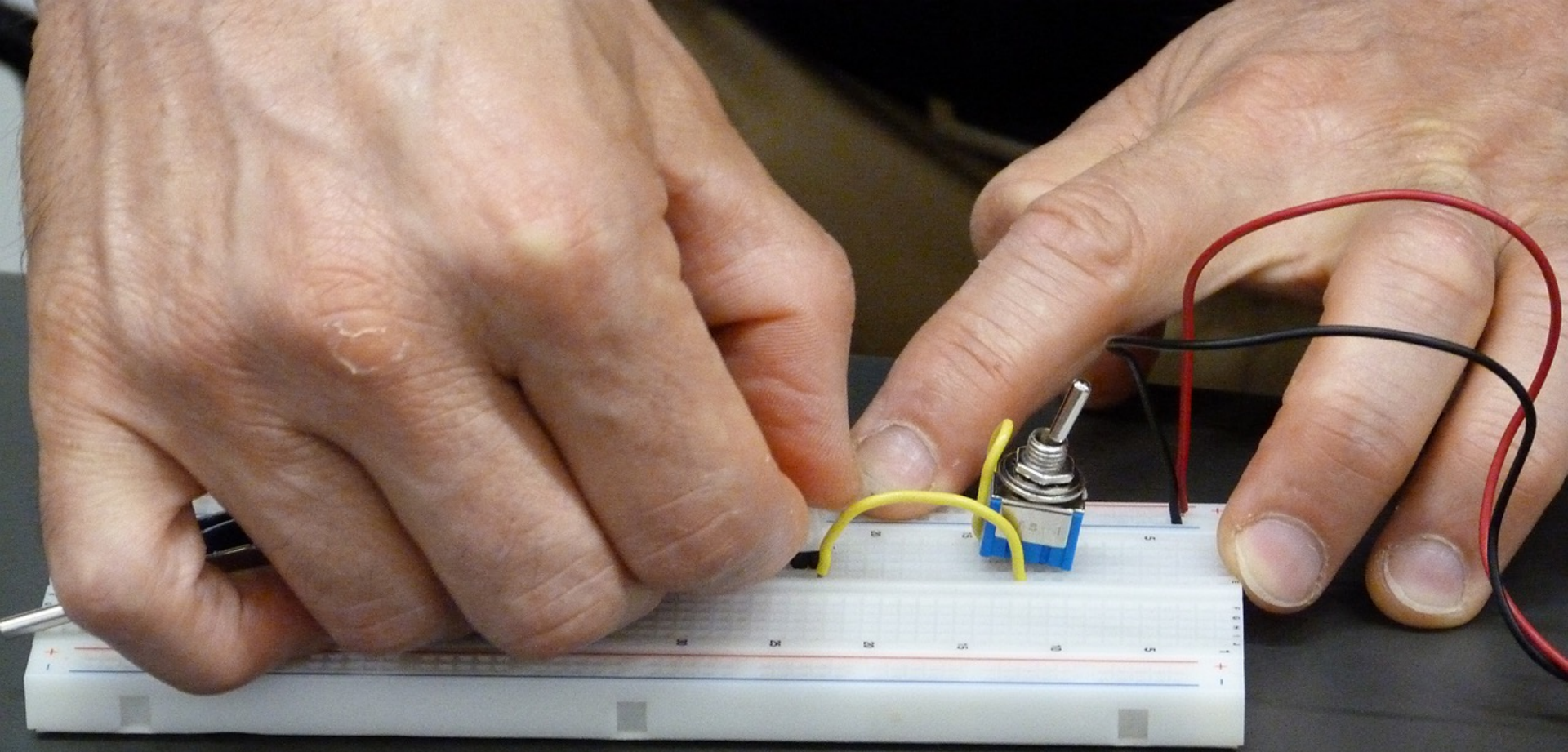*Lessons Learned: research approach in Digital Media Art*

Aesthetic Musing:
This activity plays a central role in the creative cycle, since it represents the **moments of contemplation** *where the artist/creative person revises, revisiting his/her seminal vision in the light of the decisions made (or only planned) during design and development of the artefact.*

"PIXEL2", de Acácio Carvalho e Selma Pereira (2016)

Lessons Learned: research approach in Digital Media Art

Techniques / tools for practice-based research*:*

➤ *Time **planning around the cycle**, including milestones (without loosing flexibility)*

➤ ***Freely experimenting** technology*

➤ ***Board book** to register sketches, observations, reflections, decisions, results and drawbacks, etc.*

➤ *Impose a **<u>gradual maturation</u>** of the artefact*

➤ *Team-work / **exhibition planning** / inquiries design / capture in video / sound the public fruition*

Lessons Learned: research approach in Digital Media Art

For **practice-based researchers**, <u>**making an artefact is pivotal**</u>, and the insights from making, reflecting and evaluating may be fed back directly into the artefact itself.

<u>**Practice-led research**</u>, on the other hand, **does not depend upon** the creation of an **artefact** but is nevertheless **founded in practice**.

Digital media art from the students of the doctoral program in digital media art (Aberta University; Algarve University) and invited artists-teachers

Artefacts

Digital textile artefact that studies the interaction of **e-materials** with the traditional **tapestry technique**

Explores a kind of **<u>interactive visual-sound-musical language</u>**

"Interactive Carpet "Óbidos / Oppidum"", by Teresa Barradas et al. (2014)

Artefacts

Uses the **principles of sound art** to explore the concept of the **user's sound portraits**

Performer immerses himself in a performative and **choreographic dimension of self-representation** (self-portraiture)

*"Sculpture Présence", by Rudolfo Quintas, Mirian Tavares and A. Fernandes-Marcos (2015)*

Artefacts

Develops a **<u>pictorial, dynamic representation</u>** that represents the place of the pilgrimage, which is changing as a result of the **<u>interaction</u>** of the user who manipulates a **<u>pendulum</u>**.

"Between the Sacred and the Profane in the Feasts of S. João d'Arga", by Dominguez et al. (2014)

Artefacts
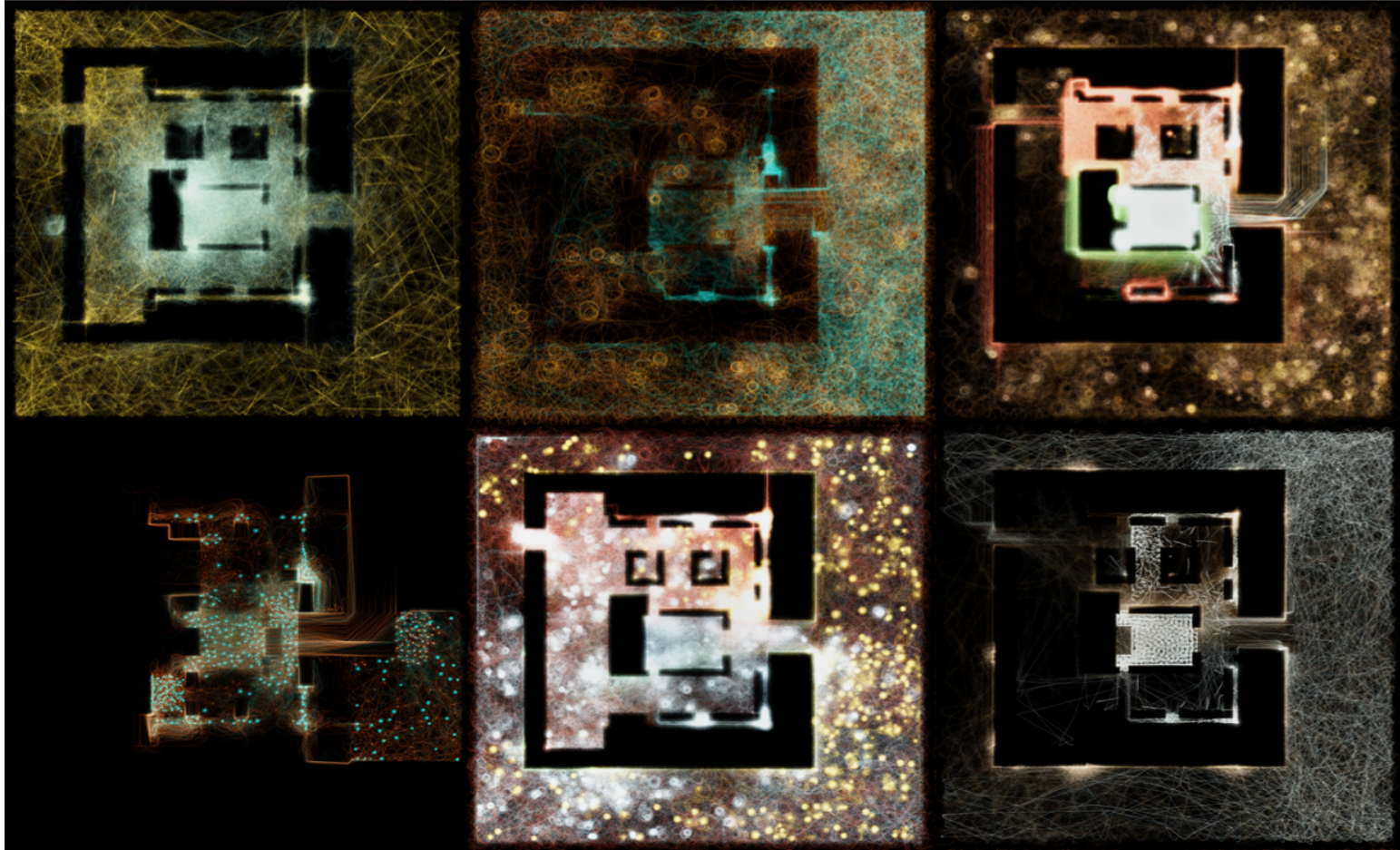
Examples of visual compositions generated by the artefact

Artefacts

Video mapping to explores religious physical artefacts thus offering a spiritual / philosophical experience

"The New Light", Óbidos, by Rudolfo Quintas (2013)

Transdisciplinar Installation

Installation exploring sensuality elements while allows for a **<u>immersive interactive experience</u>** guiding to critical reflections about critical reflection on the female libido.

Pontos G – Chakras Invertidos", de Paulo Cesar Teles (2018)

Two reference conferences:

- ARTECH – International Conference in Digital and Interactive Arts

    - 9th Edition Braga 23-25 October 2019

    - http://2019.artech-international.org/

- ARTeFACTo – Int. Conference on Digital Creation in Arts and Communication

    - second edition: http://artefacto.artech-international.org/artefacto-conference-2020/

Additional information

- http://dmad.dcet.uab.pt (info DMAD)

- "PRESENCE" - https://youtu.be/PMaUHHCq66U

- http://arbor.pt/index.php/teste/videos ("ARBOR")

- https://youtu.be/XaJb05YFFRc (Artistic residence Cerveira, 2015)

- "Pontos G – Chakras Invertidos"

- http://artefacto.artech-international.org/paulo-cesar-teles/

- https://www.facebook.com/aderito.marcos/videos/10217772929494046/?t=22

Collaboration between students from **Architecture** and **Digital Media Art** doctoral programs are devisable and welcome!

Feel free to propose collaborations!

Thank you