

# SOFTWARE ART AND SENSITIVE CONTINUUM: SPACES OF LATENCY BETWEEN LIVING SYSTEMS

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Research-Creation Project

**Context:** Art that involves computers, computation, computational logic or its architecture frequently responds to a variety of names: Media Art, Software Art, New Media, etc. Digital Art, Art Numérique make direct reference to the digit that transmits and encapsulates information. Software Art encloses the reference to the digit and the art in the writing of the program. The written code or software, corseted by the boundaries of the machine, becomes the material of art, and it modifies and impacts the creative thought process and the scheme of its production. Software art merges 'Fine Arts' and 'Technology' and assumes a dialogue between two different and sometimes opposite methods of research and knowledge production. Computer programming as art material pushes new aesthetics and opens new scientific and conceptual mechanisms for research.

The Shannon-Weaver model of systemic transmission or communication rendered around electronic engineering in 1948, explained communication in terms of five basic components: a source, a transmitter, a channel, a receiver, and a destination. The message appeared cleared of *all* meaning and removed from *any* physical material. This mathematical theory, fundamentally generic, quickly expanded to study animal and human communication. Data could be anything.

As K. Hayle explains: "*Information needs to undergo a certain amount of analogizing before humans can experience it. (...) Information, not only needs to be 'instantiated' in a medium, also relies on specific material conditions in order to be perceptually experienced and cognitively processed.*"<sup>1</sup> This holds important consequences for this work in particular.

**Objectives:** To translate bee flight data into drawings and 3D computer renderings, carrying on the complex motion dynamics, spatial and temporal relationships, individual and collective decisions that were staged at the entrance of a beehive under various controlled circumstances. To propel an aesthetic, sensible and critical visual analysis of living systems while examining historically and critically our methods and devices that guide and limit our conceptual structures of seeing.

The work follows an interdisciplinary research-creation approach in articulation with critical theory and a historical analysis. It involves working with data from social insects's activity. It demands a permanent interdisciplinary dialogue, contribution between research areas, field work and observation, hardware review and construction, software writing and art production. Current studies in Environmental Humanities, Post-humanism, Animal-Computer Interaction and Media Archaeology enrich the inquiry.

To achieve this, the work articulates studies of history, theory and evolution of the following:

1. Computation: Early development. Material properties. Procedures. Capacities. Current evolution and Ai.
2. Devices for capturing data: Image, Sound, Movement, Temperature, Distance, etc.
3. Data Management: Selection. Classification and Ordering. Loss. Averaging. Anticipation. Representation.
4. New Media Art Theory and Practice. Drawing and print equipment and techniques.

**Initial Results:** In the disassembling of the affecting variables and conditions of the raw data material, the study in the first year inquired on the computer as a medium and looked into data and time management. Specifically:

DATA: a-Data as Information: Precision. Scale. Direction. Choice. Range. b-Coding: Analogue to digital translation. Language. Procedures. Memory. Storage. Loss.

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<sup>1</sup> How We Became Posthuman. Virtual Bodies in Cybernetics, Literature, and Informatics. Hayles, K. N. University of Chicago Press, 2008.

TIME: Media temporality. Represensing. Statistical approximation. Averaging. Hierarchy-sizing. Scaling.

*"There are thoughts we can anticipate, glimpsed in the distance along existing thought pathways."*<sup>2</sup>

Wolfgang Ernst, in 'Else Loop Forever. The Un-timelessness of Media, elaborates on media temporalities. Some of the temporalities are tied to sequential processes and internal functions in computer hardware, other ones are performed by algorithms in computation that allow for recursive functions and a few 'real time' operations. All of them tweak and stretch our perception of the 'real' time passage. Media, as he states it, performs a "micro-dramaturgy" of temporal properties. Ernst introduces an interesting term: Represensing. A term that couples a representation with something sensed. This term 'sense' stands in-between knowing and anticipating, and involves the senses in accordance with what is acknowledged and known, and with what is expected or projected.

The term 'Represensing' of the qualities mentioned, is particularly interesting for this study as it appears evident that it is an acting condition present in living systems dynamics. Represensing in the wiki(pedia) is described as: "The act of having a sense of representing or representation of a hood or posse without prior knowledge or affirmation." An action of representation disposed of any kind of assurance or of certainty of the immediate future, lacking the information of a 'read future'. An action taken as a gamble, as a leap of faith. For computation, this is handled through statistical approximation, averaging, hierarchy-sizing, scaling up.

**Art Production Results:** Series of Six Diptychs. Large Format (100cm x 100cm) Digital prints. 2023

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<sup>2</sup> Beginning After the End. In Dark Ecology. For a Logic of future Coexistence. Morton, T. Columbia University Press 2016.