

Post-Human Motherhoods: Reflections on mother- offspring bonding as symbiotic individuation in Contemporary Art

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Abstract

As part of an ongoing postdoctoral research on post-human motherhoods in media art, the paper examines selected artistic expressions of mother-offspring bonding and its relationships with different technological cultural basis. The introduction addresses the handling of the concept of the mother and its related operations in the research scope. Following this, we suggest as standing points for reflection both the material basis of the placenta and playfulness as elements shaping the mother-offspring bonding. They constitute fundamental aspects triggering affection in the potential symbiotic relationship established in mother-offspring bonding. The discussion is permeated by artwork examples, brought on demand to the text to feed the reflection. The notions of "natureculture" by Donna Haraway and the theoretical framework by Second-order Cybernetics are grounding references. The final considerations point towards the human and post-human aspects of motherhood revealed by the artworks, as well as to the need for concrete actions towards the reduction of the gender-based technological gap in media art, in order to increase the imaginary variability of the field.

Keywords

Motherhood, media art, post-humanism, mother-offspring bonding, placenta, play, naturecultures, Second-order Cybernetics, technofeminism.

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Introduction

Inspired by my own experience as a media artist who became a mother, I was curious to know what artistic expressions emerged from the intersection between motherhood(s), technofeminism(s) and post-humanism in the arts over the last decades. Soon I found that, there was neither an abundance of examples nor has this intersection been sufficiently circumscribed in the academic field. Therefore, the initial curiosity became my current post-doctoral research project at the VALIE EXPORT Center / *Kunstuniversität Linz*.

*“As a radical onto-existential re-signification of the notion of the human,”*¹ post-humanism considers the “significant otherness” and the inseparability between nature and culture. The acknowledgement of the agency of non-human entities, from active matter through machines, to other species, material-discursive approach, even if not mentioned or declared, grounds much of the media art production since its emergence in the history of techno-culture.

To a certain extent, it is possible to deduce that the absence of motherhood as a topic in media art field mirrors the gender-based technological gap of the field experienced until today. In other words, numerous reports and studies point to the so-called digital divide, referring to the inequalities between groups with or without access to technological tools. Among other non-privileged groups, it is constant that girls and women have less access in general. Inequalities are even more contrasting if we consider the gap between those who have access as consumers and those who are developers—an issue frequently disregarded in many studies on Human-Computer-Interaction (HCI).²

Aiming to dig into this problem, the project *Where are media artist mothers?* also integrates a survey³ to investigate if the hypothesis is true. Among the concerns is the question of what measures should be taken to better welcome media artists who are mothers in the production context, to populate media art with more constructive and empowering perspectives of post-human motherhoods, and therefore, to enrich the art and technology environment with a higher variability of imaginaries.

In this paper I share only a frame and still open part of the research, addressing some references and examples to reflect on how artists articulate common symbols, materialities, technologies and alternative narratives in relation to motherhood and post-human bodies. More

specifically, the paper observes the materiality and dynamics integrating the mother-offspring bonding and its expressions in the art field.

To conduct analytical comparisons among selected artworks under a common conceptual umbrella has been one of my strategies to investigate how (media) artists respond to the paradigmatic changes in feminist movements through the lenses of mothering issues.

Motherhood and related operations

The general approach towards motherhood in the research is based on the diagram shown in figure 1:

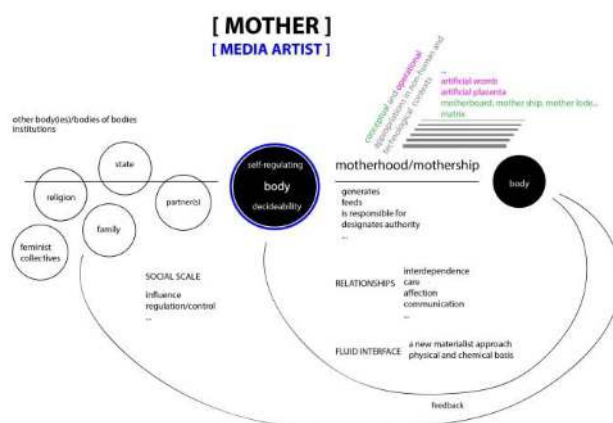


Figure 1. Diagram depicting the abstraction behind the comprehension of motherhood, through an expanded concept of mother. It circumscribes the operations usually associated to mothers, its relationships to other bodies, as well as the appropriation of the concept in non-human contexts. © Lautenschlaeger, 2022.

In the human case, these operations can also be associated to the sequence of topics involved in the reproductive cycle, encompassing right from the concerns around fertility, through fecundation itself, the transformative aspects of pregnancy and gestation, the birth-giving, to procedures and ethics of offspring care.

Due to the lack of motherhood and related topics representations in the media art field, I look with special interest to a specific profile of mothers: artists that are also technologists, creating their proposals in the intersections between scientific and technological knowledge, whose artworks or performances reveal sorts of media thinking, critical approaches to technocultures, and/or technofeminist perspectives.

Parenting as reproduction and care work

Regarding the considerations above and for a more respectful approach to all possible types of motherhood, the term “parenting” is certainly more appropriate. This observation is structured on the acknowledgement of the feminist struggles towards a more equalitarian division of the high demand of work generated alongside the gestation and care of a newborn – often invisible and non-paid work. US-American experimental artist and technologist Ani Liu, who between May and July of 2022 had a solo exhibition at Cuchifritos Gallery in New York titled *Ecologies of care*, shows a diverse series of speculative artworks that invites us to reflect on the invisibility of reproductive and childcare labour. At *Untitled (Labour of love)*⁴ Liu builds a data portrait recording every feed and diaper change for the first 30 days postpartum.

The coincidence of the terms “labour” and “love” in the piece’s title addresses precisely the ambivalences that pave the culturally constructed perversion in devaluating creative/generative work in multilayered contexts – from the reproductive work itself to the art context.

In order to turn the repetitive and exhausting care work demanded by a newborn visible, the artwork also portrays a way of thinking inspired by the ongoing big-data technological environment, where we are responsible for curating what is the relevant data to turn into information through data visualization. Dealing with information as embodied data, would Ani Liu’s *Labour of love* be an actual version of the iconic Mary Kelly’s *Postpartum document (1973-79)*?⁵

Indirectly, Liu’s piece is also suggesting love as the strong element fostering the mother-baby bonding, which is neither certain nor unanimous among all cases of mother-offspring relationships, be it in regard to human or non-human species.

Now connecting to ISEA 2023’s theme, would symbiosis be the key towards healthy mother-child relationships, despite all the ambivalences of mothering? How does the bonding emerge and is regulated? How do the symbiosis aspects emerge in artistic expressions?

We may find part of the answers to the aforementioned questions through an investigation on the possible ways through which affectivity is generated.

Mother-offspring bonding

The strong connection between mother and offspring is a long-term process starting in the gestational phase, continuously nurtured through the care work demanded by the newborn until its autonomy as a self-caring being.

Although it is known that there are studies in psychoanalysis, for instance, that doubt the mother-offspring relation as symbiotic and conflict-free,⁶ in this session I address only two aspects of a huge variety of possible mechanisms that contribute in shaping the symbiotic aspects between mother and offspring: the role of the placenta and the role of playing.

The case of mammals: since the womb via the placenta

Observing the very material basis of mother-offspring bonding, it starts on the physical and chemical exchanges between cells within the mother’s womb, from which embryo and placenta emerge.

Professor Marjolein Oele places the placenta as “*a fetal and maternal place-and-time making boundary*”⁷ and discusses how the placenta materializes a model of “*affective symbiogenesis where selves come into existence*.”⁸ Her philosophical reading of the placenta has special impact in the project I report below.

Intrigued by the metamorphosis I went through while I was pregnant, increased by the intensity of every change, I felt compelled to start gathering materials referring to the significant fragments of the ongoing irreversible revolution. Among these materials there are audio samples recorded from the belly (heartbeats, placenta, veins flux, etc.), as well as the sounds of the baby after birth, interviews with mothers from different profiles, stamps of the placenta, data collected from the glycemic control of gestational diabetes and writings. This initiative somehow assisted me in accepting the difficulties of the fast changes as well as in getting prepared for both the birth labour and puerperium. Simultaneously, it became an art project, that I called *Binômio (Binomial 2021-)*, still in progress.

Binômio encompasses a series of aesthetic experiments articulated from the recombination of afore-mentioned different elements collected since my pregnancy, addressing issues arising along the experience of mothering. The experiments interlace material and symbolic relationships of affection, intimate and universal aspects, intertwining subjects, organic and

machinic elements. Fascinated by the placenta as an ephemeral organ and the various cultural manifestations related to it, there are some experiments in which I focus on the extraordinary role it plays—e.g., the placenta provides oxygen and nutrients to the baby, produces hormones that promote the baby’s growth, removes toxins and carbon dioxide, besides protecting and passing immunity from the mother to the baby, etc.

For the context of this article, I highlight two of them:

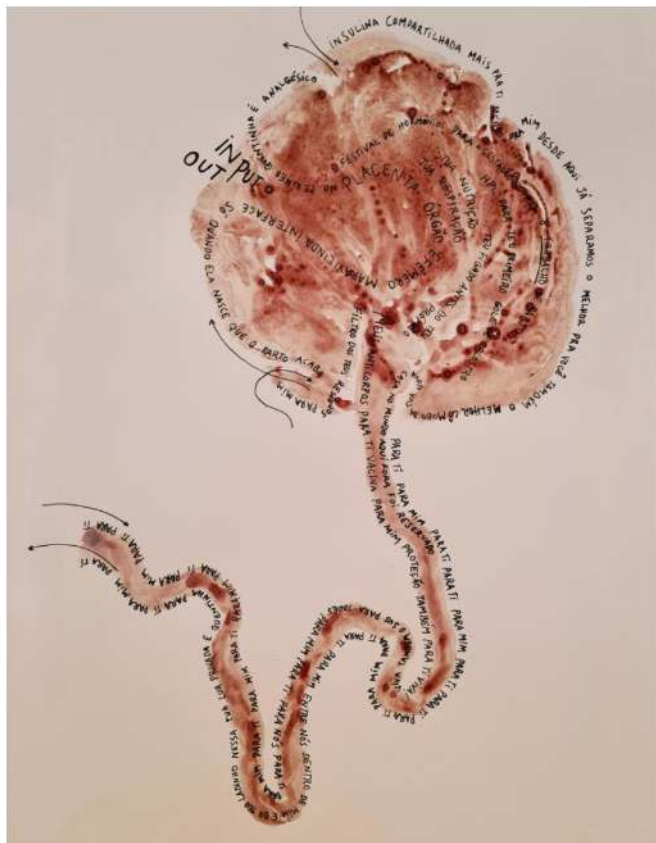


Figure 2. Placenta: interface (2021), by Grazielle Lautenschlaeger ⁹ ©Lautenschlaeger, 2022.

Placenta: Interface (2021) has been a conceptual piece, a print media merging a text with the image of one placenta stamp, done with blood just after birth. Appraising the placenta’s amazing qualities as interface, the text is a poetic letter to my daughter, written on its contours and places of flux and exchange. I envision its mysterious ways of functioning as the most incredible interface possible.

Abstracted Placenta is another ongoing experiment, a luminous sculpture as a homage to the artist’s forgotten placenta at the hospital, as well as the uncountable wasted ones by medical teams. Lacking information and ethical procedures, in most cases the placenta is ignored, on the one hand, the right of the birth-giving

body to possess their own organ, and, on the other hand, the multiple benefits that placentophagy can provide for women in the postpartum. ¹⁰

The piece displays the changes from the glycemic values, systematically collected by the artist in the week when she discovered she had gestational diabetes. It suggests the placenta as an interface organ between the pregnant body and the baby, as a sort of data visualization of the complex regulation capacity of the organ, which despite its ephemeral life, undertakes the whole responsibility during the mother-baby bonding process. As a self-regulated organ, the placenta is considered to have its own “conscience,” characteristic suggested by the pulsing light animating the glass piece, whose shape also remembers a jellyfish.

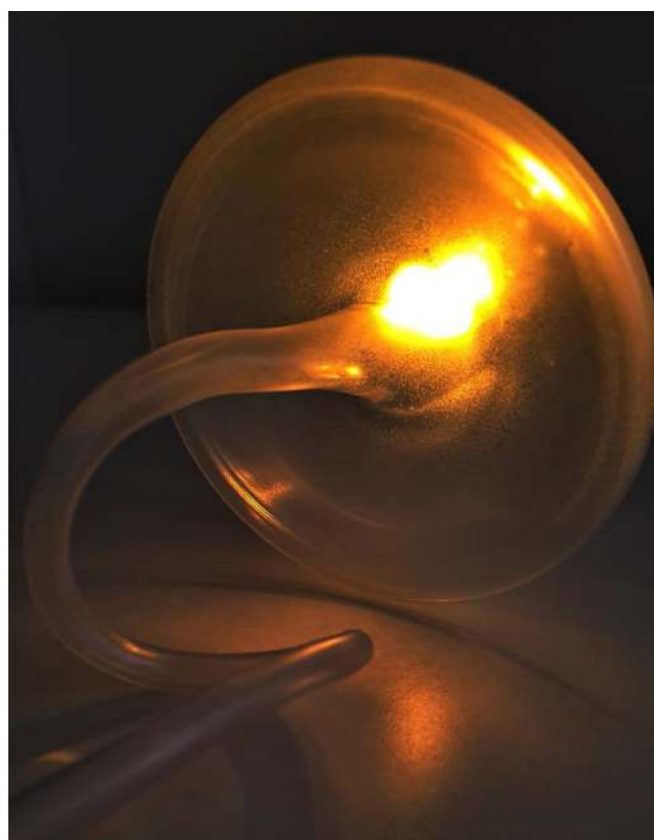


Figure 3. Prototype of *Abstracted placenta* (2023), by Grazielle Lautenschlaeger, to be exhibited in the context of *Caring matters. who cares*, between June 5th and 13th at WHA Galerie in Linz, AT. © Lautenschlaeger, 2023.

Despite the scientific advancements on the creation of artificial placentas, both the conceptual and material presence of the organ in contemporary media art is practically inexistent. Among the rare cases one can mention the participation of the Japanese obstetrician/ gynecologist Nobuya Unno at the Symposium of the *Ars Electronica 2000 – The next sex: Sex in the age of its procreative superfluosity*, where he presents an article on the *Development of an Artificial Placenta*. Besides not being based on an aesthetic exploration of

the organ, Unno concludes the text with remarks on his proposal as an “*extension of the preexisting neonatal intensive care system for the extremely premature newborn*” and with the warning on the high costs of such an enterprise: “*using extracorporeal circulation would be destructively expensive as an alternative for natural intrauterine pregnancy.*”¹¹

In addition, other online searches on “placenta art” only lead us to handicrafts made of placenta or to digital illustrations. The absence of deeper conceptual, aesthetic and philosophical explorations on the magnificence of the placenta compels me to further investigate its potential by means of the available contemporary artistic tools.

Playing as means for bonding

Besides the very material basis of the mother-offspring bonding, one can also approach the dynamics of the relationships that emerge through the activities of care communication, and above all, through the eagerness of babies and children to play and engage in interaction.

Playing permeates the most varied human cultures,^{12, 13} extraordinarily demonstrated by Belgian Artist Francis Alÿs with his project *Children’s games*,¹⁴ featured recently at the Venice Biennale 2022—*The milk of dreams*, with a selection by curator Hilde Teerlink integrating the exhibition *The Nature of the Game*. Playing is embedded in social life and its dynamic shape modes of existing and interacting with the environment in which subjects are relating with, influencing the communication processes and the quality of the relationships between subjects. Playing is also a key entrance towards a neuro-affective approach for a healthier development for both child and family.

Fair play between different subjects requires a respectful positioning towards the corresponding alterities—principles that may be discussed from a multitude of perspectives. In the context of this paper and its affinity to issues emerging from the intersection between art and post-humanism, two main epistemological frameworks integrate our investigation, the notion “naturecultures”, introduced by Donna Haraway¹⁵ and Second-order Cybernetics.¹⁶

The neologism “natureculture” has been developed in order to deconstruct historically calcified dichotomies such as the opposition between the cultural and the natural, body and mind, the material and the conceptual, among others. As a review on Haraway’s own thoughts

developed previously at *A Cyborg Manifesto* (1985),¹⁷ naturecultures entangles multispecies narratives, as means for reflecting about power relationships, agency, difference, sociality, ontology and epistemology.

Second-order Cybernetics, in turn, as a transdisciplinary and participatory epistemology, presents an ethical significance based on two pillars:

- (1) the inclusion of the observer while observing a system, and
- (2) the recursion embedded in acting in order to know – observers of a system recursively observe the effect of their actions, using the feedback to adjust their understanding and their following actions.

From the valued recursion of Cybernetics, the condition well summarized by Timothy Stott, lecturer in Art History and Visual Culture, emerged:

Play was, and remains, a social technology for the cybernetic age. Advocated by many as a humanist corrective to a technocratic and automated post-war society, play also expanded cybernetic ideas of interaction, feedback, and systems modelling into the social domain. From the late nineteen-fifties on, especially, cybernetics and play converged through games, toys, and interactive exhibitions.¹⁸

The convergence pointed by the author however, is rarely (if) seen in relation to mother/parenting issues in media art exhibitions.

Articulated in the background of the ongoing research as complementary tools, natureculture and Second-order Cybernetics offer to the players of a system, a relational, reflexive way of knowing and acting, in which the players are not merely observing, but are indeed responsible for the values, ethics meaning they generate. Theoretically, they compose an ideal scenario for a healthy and equalitarian interaction, enabling, in the case of mother-offspring relationships, an effective (and affective!) bonding.

As an example, within Art History tangential to this question is Susan Suleiman’s reading of the avant-garde through the figure of the playful, laughing mother.¹⁹ By means of inquiring what role do women artists and writers play in the audacious positioning of the avant-garde and their postmodernist successors, Suleiman’s laughing mother embodies a powerful, humorous or parodic critique of patriarchal ideologies—cleverly merging symbolic innovation, political and social transformations.

Posthuman motherhoods Machinic motherhood

Other possible thematic links between reproduction and technology is found in the creation of artificial wombs and other genetic engineering techniques that have inspired various sci-fi stories, for example, *Brave New World* (1932) by Aldous Huxley or *Blade Runner* (1984) / *Do Androids dream of electric sheep?* (1968). More recently, the series *The Handmaid's Tale*, based on the dystopian novel by Canadian author Margaret Atwood, is the current most popular reference. It is precisely to avoid such dystopian worlds that technofeminists argue for an attitude in which such technologies could also be developed by non-dominant groups.²⁰ Is something similar expected from artists working technologically with media art and addressing issues such as fertilisation, pregnancy, birth, as well as child feeding and education?

Besides the machinic motherhoods found in the science fiction imaginary, one can observe concrete machinic entities built up within the aesthetic domain of media art exhibitions. One example is the installation *Génesis: dinámicas de organismos artificiales* (2016),²¹ by Ana Laura Cantera, Daniel Alvarez Olmedo and Leonardo Emanuel Maddio. It consists of a symbolic recreation of a gestation of artificial organisms that will interact with the visitors by means of programmable robotic experimental devices, in an artificial context of water, movement and light. The containers of the robots have an opening covered with biodegradable plastic that is corroded by the constant movement of the organisms inside, to the point of generating the rupture and their consequent "birth". This way, the installation presents critical moments of latency and birth of these organisms, from their embryonic stage, to moving and interacting with the audience. Programmed in an evolutionary and non-cyclical way, the installation generates unique and unrepeatable moments along the exhibition period.

What is the significance of reproducing (or even inventing) a machinic birth process in the art context? Does the aesthetic system of *Génesis: dinámicas de organismos artificiales* also present a sort of mother-offspring bonding? In technical terms it probably may have. However, would this also mean an affective link?

This question raises the interesting issues of the still challenging notion of possible machinic self-awareness, possible if a machinic subjectivity once emerges, and therefore being able to engage in an affective relationship. Even with highly advanced AI-based

technologies one can hardly imagine a concrete case of an emerging machinic self-awareness. Reflecting on the reciprocal quality of affect and symbiosis, perhaps it would make more sense to elaborate on the mother-offspring bonding between the artists and the artwork.

If we cannot speak about affective symbiosis in the machinic motherhood of *Génesis: dinámicas de organismos artificiales*, can we envision a machinic mediated mother-offspring bonding? Perhaps this is the case of the performance discussed in the next session.

Interspecies motherhood

Another post-humanist perspective regarding motherhood can be discussed through the project *Hybrid family* (2016), by Slovenian artist Maja Smrekar, which referred to the simultaneous existential and political instrumentalisation of a woman's body and breastfeeding.

Along a three-month performance with her puppy, the artist stimulated her own hypophysis by systematically pumping to release the hormone prolactin. At the same time, she had a diet rich in galactogens to promote lactation, which stimulated an increase in the oxytocin hormone.

By becoming a "(m)other", the artist experienced and demonstrated the "natureculture" coined by Donna Haraway and continues to explore a reproductive freedom in a multispecies world. "*If nature is unjust, change nature*"²²: from this standing point the performance embraces simultaneously xeno and ecofeminism, interspecies relations, as well as a critical perspective on technology and ideological structures in society.

Final considerations

The artwork examples discussed throughout the article shed light onto both the very human issues related to mothering/parenting—the invisibility of reproductive and care work within an unbalanced social structure—and the post-human experimentations that expand and challenge the core of motherhood related operations. Together, they give us a series of questions to reflect on the entanglements between motherhood, art and technology—despite the rare presence of the topic in the realm of media art.

Approaching the mother-offspring bonding through its material and dynamics basis (e.g., the placenta and playing) is just one possibility to address its symbiotic potential and how the motherhood may be related to contemporary epistemologies frequently being used in the media art production.

In addition, they confirm the need for updates on feminist positioning within media art production, whose community perhaps is not aware of the absence of the topic within the field.

Conclusively, in response to the still enduring inequalities addressed by feminists, it is time to find concrete strategies to reduce the gender-based technological gap in media art. This is the only way to populate the field with a higher variability of imaginaries, with subjects, such as motherhood, that are ignored inclusively by the most considered alternative initiatives, agents and institutions.

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