

MONUMENTS FOR FUTURE

m/otherhood

artificial wombs and our reproductive futures

Imagine, it's the year 2050 and artificial wombs are able to carry full-term pregnancies. People born from this will receive an invitation on their eighteenth birthday to visit a monument that exhibits part of the artificial womb.

Many people report that they feel a strong connection to and have memories of the artificial wombs in which they grew. A visit to the monument therefore marks an important life event. Womb monuments give these people a place to return to. They forge a meaningful connection with the machines that gave them life.

With this speculative experience, we want to spark new ideas about future reproductive scenarios and family ties. Can we think beyond the current family tree? And how do we experience new forms of kinship and the sense of being part of something bigger than ourselves?

SPECULATIVE DESIGN AS SOCIAL PRACTICE: REFLECTIONS OF A DESIGNER

By Lisa Mandemaker

As a designer trained in product design, I learned design to be about concrete situations, designing answers, and being creative within restrictions of manufacture, costs, and material use. In speculative design, we focus more on redefining these conditions, creating space for alternatives and alternative societies and ways of doing things. It is abstract, but it allows freedom to think otherwise, outside existing restrictions into new possibilities.

To me, speculative design is an approach with a focus, and a certain number of ingredients designers play in their projects. It is process-led, and observation, participation, and intervention are the critical sense-making methods used. Depending on the context, the mix leads to different results. Since there is no methodology to follow, speculative design requires a critical mindset and the ability to connect the dots and look at the world differently. Besides this, it's important to foreground the perspective (e.g., socio-cultural context) from which the imaginations and speculations are created. The focus should not only be on speculative design as an object but also on the relation between the context, where it is the design is produced, and by whom.

The results have several requirements: A speculative designer needs to be able to take the viewers/users into a coherent story. Creating bridges between disbelief and acceptance. It should invite the general public to think and reflect on subjects or situations they are not used to thinking about daily. In this way, speculative design can catalyze thinking about possible and preferable futures with a broad group of people.

Designing a speculative project

The core team of the project consisted of five philosophers, a Responsible Futuring expert, and a speculative designer. The design brief for the speculative design read to design a speculative model of an artificial womb. This model would be used in workshops with different stakeholders to reflect on reproductive futures using a tangible artifact.

In conversation with the philosophers, I wondered if designing a model of an artificial womb would take the workshop participants in the right direction for reflection. In the conversation, I noticed that what the philosophers aimed to reflect upon was more value-based and emotional and might need a different artifact to reflect on. I opened up the process to co-creation settings to find out what that object should be.

I translated the questions and future scenarios the philosophers started to develop into a small installation we presented during Dutch Design Week 2021. Visitors were invited to reflect on the written scenarios in a designed space. They could leave their thoughts by writing them down and adding them to the installation. We were present at the site to have conversations with visitors. After that, we hosted a workshop with a similar approach, the scenarios were more in-depth, and we specifically invited stakeholders from the field of reproductive healthcare, researchers, and other disciplines interested in reflecting on them. They invited them to translate their reflections into collages and 3D prototypes.

Making things tangible in the workshops worked as a catalyst for thinking and debate. Some participants noticed they aligned with someone while talking, but when trying to make their idea tangible, they had to make an extra series of decisions. These decisions did not always align as much as they did before. When the participants had to speculate on possible futures, they struggled to think beyond what they already knew. Most of them were extrapolating scenarios and didn't arrive at an alternative. They felt this was not the right way to do it and expressed that they needed help to think beyond it.

Creating a speculative scenario

In other design fields, the scenario of usage is generally defined or prescribed by a client or revealed through research. But in this case, it needs to be designed. Noticing the participants struggling with imagining alternative futures, I started designing a far-future scenario that would help the participants with their reflections in the next workshop. My hypothesis was to change the direction in reflection: instead of thinking about the future from the present, I wanted to have them reflect from the far future back to the present.

The beginning of creating the scenario was a thought experiment about the

artificial womb as a prosthetic. The prosthetic metaphor is often used in scenarios to make sense of our technologized lives, but not always from a critical, inclusive stance. The inspiration for this perspective came from the Third Thumb Project by Dani Clode, the Phantom Recorder by Cohen van Balen and an essay by Vivian Sobchack: A leg to stand on: prosthetics, metaphor and materiality.

From this essay, I learned that there is a difference between ‘a prosthetic leg and ‘my’ prosthetic leg. I wondered if that would be the same for an artificial womb: ‘my’ artificial womb gives me way more directions on how to make sense of this. So I created a new design brief: What makes it my artificial womb? And to make it more societal: what makes it our artificial womb?

The next question I asked myself is, from which perspective do we view this? From the being inside? Or, from the parent’s perspective, having their baby inside the artificial womb? Influenced by the philosophers, I focused on the perspective of the being inside: What does it mean to be born from an artificial womb?

Sense-making, co-creating, re-combining

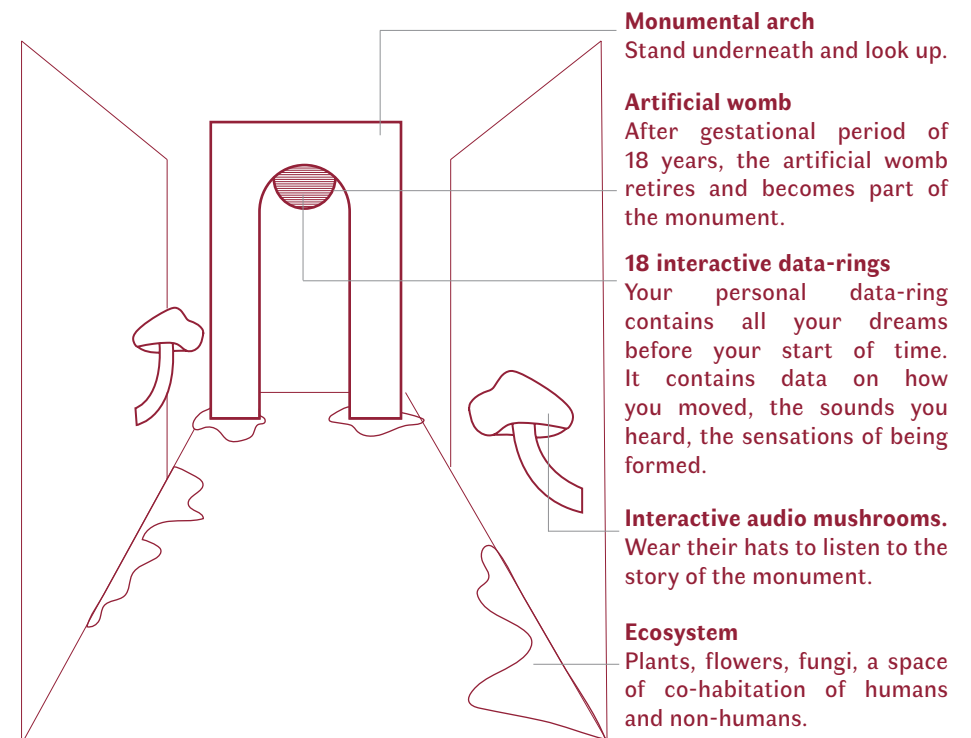
Looking at the artificial womb as a product and speculating on a product life cycle of the machine gave me a timeline for the scenario I was designing. I looked at different layers of intimacy and ownership within the product and compared it to products we use daily and how ownership and intimacy work. I created a speculative life cycle for an artificial womb and added a phase of obsolescence but decided to call it ‘retirement.’ In the retirement phase, I connected to genealogy and family trees, which are tied to the year rings of a tree. I used the year rings to interact with the data an artificial womb might carry. I translated this into data rings: a future way of safekeeping and interacting with your gestational data. After sketching and making associations, I arrived at a display of retired artificial wombs you could visit.

The story formed the starting point for a series of dialogues with different people: collaborators on the project, designers, and students at DesignLab. From these dialogues, I understood that what I was designing was not necessarily an artificial womb, but we were rethinking motherhood: m/otherhood. We tested this concept in a second workshop with participants from various disciplines and cultural backgrounds. The reactions were very mixed; some were intrigued, and others were skeptical. But from a place of skepticism arrive interesting reflections, as well as from the participants that

were intrigued by the speculation. The discussion in this workshop focused more on future values and possible interaction, rituals, and meaning, which gave me input to make a final iteration on the concept for the speculative design and turn it into the monuments for future m/otherhood.

With the far future narrative we designed, I am hoping to change the direction of reflection on possible futures. Instead of trying to imagine an alternative from the present, it could help to first reflect on an imagined far future. We were allowing ourselves some freedom and space for imagination. These imaginations create a catalyst to reflect on future values, possible interactions, new rituals, and meanings. These values we can start to bring back to the present.

To me, this is what speculative design as a social practice could be: Working together on making sense of possible futures and setting a course to a preferable future that works for everyone.



RE-IMAGINING M/OTHERHOODS WITH AND FOR MORE THAN HUMAN SOCIETIES THROUGH RESPONSIBLE FUTURING

By Dr. ir. Cristina Zaga, Ass. Prof., Human-Centred Design Group, Design Lab, University of Twente

A tumultuous sociotechnical transition in the making. We all share the circumstance of being born. Yet, reproduction, birth, and motherhood are familiar and difficult to define. For humans, reproducing is at the very essence of existence—a means to perpetuate the species. At the same time, reproduction is a complex sociotechnical event. It defines how we are “humans” in the world.

We are witnessing changes in the notions of reproduction, pregnancy, motherhood, and care. We question the roles and identities in pregnancy and motherhood. We are defining and redefining reproductive health and reproductive rights as a society. Medical advances and techniques are impacting the technology for fertility and gestation. Technologies that are fueling booming industries. This tumultuous sociotechnical change comes with many societal, ethical, and value shifts. These transitions might sound and look scary. Redefining motherhood shakes the base of western and industrialized societies: the nuclear family. At the same time, it is an opportunity to redefine what we are and our relationship with nature.

The politics of motherhood. Conceiving and carrying life is not a monolithic experience. Neither is reproductive health nor any of the human body’s transitions (e.g., menstruation, menopause, pregnancy). Reproduction and gestation are not only a labor of love,” but also a ‘labor of tech. Many of the reproductive processes are medical and involve technological devices. No matter if reproduction is “natural” or “artificial” bringing a baby into the world is a political act. Reproduction is a political category entangled with systems of care that enable reproduction. But, systems of care also oppress and discriminate. Many existing products and technology embody Western heteronormative values. Technology for reproduction rarely caters to multitudes of “otherhoods”, other than the norm. Hence, excluding ethnic, social, and cultural groups with perilous consequences. What are the implications of the politics of motherhood?

At the micro, individual level, reproduction affects people gestating and giving birth, and their partners. It often affects the physical and mental health of the person who decides to get fertilized, gestate, and give birth. When “natural” conception and gestation get difficult, people willing to have a child experience the pressure and strain to try to have a child “artificially”.

At the meso, and organizational level, reproduction affects professionals that assist or design technology for it. Technology is helpful and saves lives. It is a welcome advance to support complex conception, pregnancy, and birth. Yet, technology could bring more issues than it solves. It has proven hard to tailor care and technology for reproduction, birthing, and puerperium to the gestating person’s needs, values, and wishes. There is a growing call to rethink the scenarios, values, and norms the devices and techniques embody.

At the macro, and societal level, reproduction affects the structure and roles we take in society. Our identities, our relationships, who we are to each other, what we can achieve and what we preclude. Reproduction technology and policy could be forms of power and discrimination. Society defines who can reproduce and who can’t. Who the labor of reproduction and the duties of care oppress. We as a society determine what a “mother” is and can and cannot do in everyday life or to flourish as a human being. What is a family, and what isn’t? Who gets to have a child, and who doesn’t? Who gets to survive a difficult birth, and who doesn’t?

Our socially constructed concepts of motherhood influence its reality. Our norms and values influence how we imagine the present and the future of being born. Yet, we often reduce our imaginative efforts to either utopian or dystopian scenarios. It is hard to reflect deeply on what motherhood could be. The socio-political tensions around reproduction obfuscate our future.

Why engage in responsible futuring. Motherhood encompasses many societal challenges that we need to tackle now. Such complex problems call for approaches to navigate them. Walking through uncharted territories with many stakeholders calls to inspect our values. And, to analyze long-term societal implications.

Responsible Futuring is an approach developed at the DesignLab of the University of Twente that deals with complex societal challenges. It helps to imagine future implications for the now.

The Responsible Futuring approach combines transdisciplinary practices, responsible design, and social involvement for societal impact. The approach strives to enable creative collaboration and knowledge flow between academic and non-academic stakeholders. It values each stakeholder's expertise. Yet, it stimulates stakeholders to go beyond their knowledge to become agents of change. It helps to reflect on ideas and technologies' short-term and long-term impacts. It enables stakeholders to ideate potential solutions with moral imagination.

Reflexive imagination is one of the pillars of the approach. Stakeholders develop tangible scenarios and reflect upon them, considering values and ethics. The outcomes are tangible ideas and in-depth reflections on these ideas. Responsible Futuring thus helps to go beyond what is possible to realize. It helps us imagine what would be desirable.

Responsible Futuring can help us challenge the status quo of motherhood. The process welcomes speculation as a means to engage in sense-making and future building. It helps us to translate imagination, abstract thoughts, and future visions into the present. Working with a Responsible Futuring approach helps us to go beyond ethical "what-if-scenarios". Through co-speculation we re-imagine what it means to be born and exist.

The monument of future m/otherhood scratches the surface of the possible future explorations on motherhood. To continue this exploration, we need you.

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