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The Machine as Myth

Introduction

My goal for today is to encourage you to put the word machine between quotation marks – when you see or hear it, and maybe even when you use it yourself.¹

Placing a word or an expression between quotation marks interrupts the flow of the text and signifies a change of register, or a change of the level at which the text operates; think for instance of a quotation that is built into a sentence and which is taken from some other text, and some other context. It creates an intersection of different texts and contexts.

Putting the machine between quotation marks suggests that the concept comes from a context other than we habitually think; the text from which this word "machine" comes, is a mythological text, a myth about humans and technics. It is a modern myth, one that is probably not much more than two centuries old – as old, I presume, as the notion of "man" whose emergence around 1800, Michel Foucault has described in *The Order of Things*. The modern human and the modern machine are companions, and both might also disappear again, together, – they might be "erased, like a face drawn in sand at the edge of the sea," as Foucault writes in a famous passage at the end of his book.² Posthuman thinkers today imagine the necessary end of a modernist understanding of what it means to be human; if we want to take this posthumanist plea seriously, we will also have to let go of a modernist, technological understanding of the "machine".

Perhaps by the end of this talk you will even see how, in most usages of the word machine, the quotation marks that should really be there, have been removed, slipping the word into the text so as though it belonged there and as though there was no switching of contexts. It is – and I will try to explain all of this more clearly in a moment – part of the "ideology" of modern technology to integrate a mythological term like "machine" into the flow of speech and written text, in order to normalise, even naturalise the mythical relationship of human and

technics that this concept serves to construct. What it does is an affective black-boxing of technology – something that also happens, I believe, with the term "artificial intelligence, AI".

The double challenge, then, is to build an understanding of technics that is not predicated on the binary opposition of human and machine, and to imagine, design and engineer an understanding of subjectivity that is not simply in submission towards the ideological regimes of the contemporary *techno-logos*.

My research over the past years has led me to an understanding of the notion of the machine that may appear idiosyncratic and that runs against the intuition that many of us have – against a widespread, normalised and collective understanding of technology, and its *anthropological* dimension.

In the following 50 minutes, I will try to explain this understanding of the machine concept. As the title of my talk today indicates, I want to speak about the machine as myth, pointing out the mythological structure of the machine discourse.

The machine in art

In order to approach a general characterisation of machines, I would first like to present some examples from what I call "machine art".

I begin with a work by the Canadian artist Max Dean whose installation *As Yet Untitled* (1992–1995), is a technical apparatus that can operate without human intervention, while offering an interface for a possible interaction by the gallery visitor. In this work, the arm of an industrial robot picks up printed photographs from a stack, holds them up and displays them to a potential audience for a moment, and then inserts them into an electrical paper shredder. The photographs – found pictures that must have had a personal meaning for someone, at some point – are thus destroyed one by one. This procedure can be interrupted by the exhibition visitor by placing the palms of the hands at an interface in the shape of two hands, upon which the photograph currently processed is placed into a repository box and kept.

The snapshots' emotional potential, combined with the possibility of an intervention which will prevent the destruction of a commemorative souvenir, form the aesthetic core of Dean's installation. *As Yet Untitled* constructs the relation of human and machine as a dichotomous structure in which the machine usually functions repetitively and automatically, disregarding

the emotional impact of its operation. In contrast, Dean's work posits the gallery visitor as a subjective agent who can take a decision and who can perform an action that will preserve a symbol of human memory and empathy.

This example comes from the book on *Machine Art* where I have tried to outline a field of artistic practice that, through the 20th century, responds to and articulates the encounter of humans and technics. The book has an art historical dimension in that it traces the advent of what we can call "machine art" in a narrower, more specific sense. I date this advent of machine art to the beginning of the 20th century when, from the initial celebrations of technological culture by the Futurists since 1909 to the Constructivist aesthetics of the 1920s, the machine becomes both a topic and a medium of artistic expression. The book then follows this development through the emergence of kinetic and cybernetic art in the 1950s and 60s. I have sought to draw out historical lineages for artworks from the end of the 20th and early 21st centuries, showing how they are predicated not only on the electronic and digital technologies they use, but how they continue in their own ways questions and endeavours that artists have been engaged in since the beginning of the century. So I try to show how more recent works by artists like Stelarc, or David Rokeby, or Julien Maire, are part of an art historical trajectory that connects them to the exploration of aspects of machine aesthetics – like formalism, kineticism, automatism, or interactivity – by such artists as Oskar Schlemmer, or László Moholy-Nagy, or Nicolas Schoeffler.

While this art historical argument of the book is developed somewhat "inside" the myth of the machine, on another level I argue that such works also help us to identify the workings of that myth by articulating the relationship between humans and machines, making it possible to observe and study that relationship away from the apparently rational and functional operations of industrial and other technical systems.

A reason why I hesitate to use the genre term "Machine Art" is because there are only very few instances where this term has actually been used affirmatively. I have identified only a handful of such instances – beyond that, "machine art" seems to be more of a rumour than an established historical fact.

However, one of the things that characterise the artistic discourse on machines, is a small, recurring number of tropes associated with the machine as a cultural actor. They are:

- the machine as monster;
- the machine as creative force; and

- the machine as a replacement of humans (or as an ontological alternative).³

These tropes also feature in three of the most poignant instances of the machine art discourse that I briefly want to review with you.

The first of these is an article by the art critic Konstantin Umanskij who, writing in 1920 about Vladimir Tatlin's counter-reliefs and material assemblages, inspired the Berlin Dadaists to coin their famous slogan, "Art is dead. Long live Tatlin's new machine art."

"[Tatlin's] art of the machine ... [Umanskij writes] regards no type of material as unworthy for art. Wood, glass, paper, sheet metal, iron, screws, nails, electrical appliances, glass splinters for sprinkling the surfaces, the mobility of individual parts of the work, etc. – all these are declared as legitimate means of the language of art, and its new grammar and aesthetics demand of the artist a broader technical training and a closer bond with his powerful ally – the grand machine." (1920)

I'm particularly interested here in the notion of the "ally", which ties the human artist to an apparatus that appears as imposing and scary, "the grand machine".

This image of an intimate and scary opponent is also called up by Alfred H. Barr who, together with the architect Philip Johnson, curated an exhibition entitled "Machine Art" at the New York Museum of Modern Art in 1934. The show presented objects from US-American industrial design, objects which were made in industrial contexts and whose form and materiality were determined by their functions. In his catalogue text, Barr revelled in the provocation of instances of formal beauty achieved without the intervention of human creativity, or artistic intention.

"[Historically, it] is in part through the aesthetic appreciation of natural forms that man has carried on his spiritual conquest of nature's hostile chaos. Today man is lost in the far more treacherous wilderness of industrial and commercial civilization. On every hand machines literally multiply our difficulties and point our doom. If ... we are to 'end the divorce' between our industry and our culture we must assimilate the machine aesthetically as well as economically. Not only must we bind Frankenstein – but we must make him beautiful." (1934)

Here the relationship set up is not an "alliance", but the vision of a marriage, threatened by divorce, a relationship that appears both necessary, and worrisome. The result of human engineering – Umanskij's "grand machine", Barr's "Frankenstein", representing the

"treacherous wilderness of industrial and commercial civilization" – has to be bound and, at the same time, aestheticised, or perhaps, bound and tamed through aestheticisation.

We are here at the centre, a sort of *degré zéro* of twentieth-century machine art. It is therefore not surprising that we hear a third major proponent of an art of machines, the Italian third-generation futurist Bruno Munari, exclaim in his *Manifesto of Machinism*:

“The machine of today is a monster! The machine must become a work of art! We shall discover the art of machines!” (1938/1952)

The same both critical and zestful attitude can be found in Jean Tinguely's purposeless hardware contraptions – supposedly inspired directly by Munari's *Manifesto* and his own *macchine inutile* sculptures. Both Munari's and Tinguely's kinetic sculptures are playful, perhaps somewhat atavistic rejections of a technological paradigm that, in the 1950s, was beginning to change the conditions under which human subjectivity and artistic creation were conceptualised.

Some decades earlier, around 1920, artists like Francis Picabia and Marcel Duchamp had explored machines not so much from their sculptural and kinetic perspective, but with regard to their functional and symbolical dimensions.

I mention them here, at least in passing, because both Picabia's mechanomorphic paintings and Duchamp's *Large Glass* point to the *imaginary operation* of machines – not only as technical items, but also as visualisations of psychological and sociological conditions which, even at this early stage, saw the import of – I would say *mythological* – machine thinking into the cultural imaginary. (Or, think of the concept of the Bachelor Machine that connects Duchamp and Picabia's works to the literary inventions of Franz Kafka, Alfred Jarry, Raymond Roussel, and others.) These are not technically functional machines, but symbolical articulations of the way in which inter-human relations are structured – in the image of fantastic mechanical devices.

The machine as myth

When I say that I regard the machine as a mythological entity, I mean the term "myth" in the functional sense of the word.⁴ Not in the polemical sense of an untrue story, but rather as a form of narrative that is powerful, that is engrained in a culture, that is collectively held, and repeated and affirmed. Until the 1960s, the notion of myth was generally reserved for the

belief systems of ancient and of non-Western cultures, whereas since the ideological critiques of semiotics and structuralism in the 1960s – not least through the analyses of popular cultural items offered by Roland Barthes in *Mythologies* –, the belief systems of Western modernity have been shown to also be based on such mythological narratives.

According to the German philosopher Hans Blumenberg, myths are characterised by a narrative kernel which is both variable and, more importantly, of extended continuity.⁵ A myth is an articulation of fear and ignorance, and a way to make sense of the world, whether in the face of the forces and the supposed agency of nature, or, in modernity, also addressing the agency of technics and its *spiritual* (or ideological) dimensions, like rationality, functionality, necessity, etc.

For a discussion of the machine as myth, a crucial reference text is of course Lewis Mumford's, *The Myth of the Machine* (1966/1970).⁶ We can here review it only in passing, but I want to point out some basic aspects on Mumford's argument because they can help us to evaluate what I then want to present as the core narrative of the myth of the machine.

Mumford claims that the conceptual power of the machine myth is not a modern phenomenon, but that it harks back to human experiences in ancient and pre-historic times. For Mumford, the notion of the machine originates from an ancient order of ritual, an order which humans developed as a form of self-protection to compensate for the huge psychic pressures exerted by a hostile environment.⁷ In the contemporary machine myth, there persist forms of unformed, unorganised phenomena of the human spirit, that in the modern period have not disappeared but grown stronger by being channeled into science and technics.⁸ What drives Mumford's passionate analysis is his frustration about the fact that this myth has resulted in a continued connection of excessive power and productivity with equally excessive violence and destruction.⁹ Echoing the worries that we heard earlier from Alfred Barr and Bruno Munari, Mumford envisions that, as a result of the emergence of the modern mega-techniques, humans will not act as autonomous individuals, but they will become passive, aimless and machine-dependent animal whose true functions are passed over to machines, or strictly limited and controlled in favour of depersonalised and collective organisations.¹⁰

Mumford is convinced that the modern technological process is neither natural, nor unchangeable, nor did it come about without human intervention. His goal is therefore to shrug off the myth of the mega-machine, and for his readers to understand, and where necessary, to change the course of contemporary technics.¹¹

The myth of the machine

I want to propose here that it is in fact possible to identify the narrative kernel of the myth of the machine. It may well be that this narrative kernel can also be grasped differently, maybe more precisely. But I think that it goes something like this.

This is the myth of the machine.

There is a man-made object. It can be a physical device, or a symbolical representation, related to technics by association or indexicality.

It is composed of technical elements, it has moving parts, and it has a function which it performs by repetitive movement. And it exhibits a certain formal beauty.

It is made to function automatically and independent of direct and continuous human intervention.

Over time, the object attains an increasing degree of autonomy.

It may provide interfaces for human interaction. These, however, do not determine the functionality – the human interaction can easily be replaced. The interfaces offer the human an illusion of control which can be overridden by the machine. The interfaces are only for play and enjoyment, and for human-machine conviviality.

The autonomy of the machine becomes existentially threatening for humans who, fearfully, struggle not for their lives, but for self-determination.

The narrative tends not to have an ending. If it has one, then the story ends well for the humans.

*This is the myth of the machine.*¹²

A comparison: whenever the name Oedipus is mentioned, the whole complex narrative of the myth of Oedipus is evoked, – and in that same way, I believe that the whole of the myth of the machine is brought into play, whenever the term "machine" is used. Like other myths, the

story can be varied, but it cannot be told completely differently. It is always this one story of something man-made being functional and then gaining a dangerous, non-lethal form of autonomy.

Consider the example of a loom for weaving. It is a loom, and it is possible to weave cloth on it. – When a person beholds the loom and says, "ah, a machine," he or she calls up the myth of the machine and at once the entire narrative framing comes into play, its blueprint, its construction, its degrees of freedom, and the inherent threat. The ways in which it is then treated, in the realm of the myth, is different from how it is treated when viewed as a loom.¹³

What we can learn from this *mythological* understanding of the "machine" is that the modern conception of self is imbricated with technology in this particular way. It suggests – somewhat hyperbolically, I understand – that there really is no "machine" outside this narrative, and that whenever the word "machine" is uttered, this figure of speech constructs the relationship between human and the technical object within that mythical structure, as binary, antagonistic, and ontologically differentiated.¹⁴ My proposal therefore also makes it possible to, finally, speak about the myth of the machine, and not "in" or "through" this myth.

5 + 1 machine types

What, then, is the functional context of this myth? To answer this question, I would like to revisit an argument that I develop more extensively in the introductory chapter of my book on Machine Art.

The semantic field related to the "machine", with terms like technology, apparatus, device, medium, and so on, seems complex and inconsistent, even contradictory. The murkiness of the field emphasizes the multilayered ways in which people make sense of the technical aspects of their world. There is a constant blending of technical, social, psychological, or biological, registers in our language, and the notion of the machine is itself indicative of the translation of concepts between these areas.

The philosopher and logician Gotthard Günther distinguishes, in his essay on "The 'Second' Machine", between simple tools, a "first", and a "second" machine. Tools include a form of detachment, the human toolmaker gives up some agency and, as Günther writes, fixes this agency in an objective medium. In the transition from tool to the "first" machine, the technical appliance assumes a form of autonomy from its human creator. And the second, the

"transclassical" or "cybernetic" machine is one that has no moving parts, "but conducts and 'critically' steers work procedures."

In addition to these two machine types we can identify at least three other conceptions of machines that have been used in the course of the twentieth century:

- the Mega-Machine, alternatively referred to as machinery, apparatus, or state machine, is associated with authors such as Lewis Mumford, Karl Marx, and Louis Althusser;
- the Turing Machine, that is the machine of mathematical calculations and algorithms as described by Alan Turing;
- and the abstract and autopoietic machines of desire and heterogenesis conceptualized by Gilles Deleuze and Félix Guattari, following Humberto Maturana and Francisco Varela.

Gotthard Günther's conception of the machine is one of an autonomous mechanism, whereas Mumford views the machine in a social context and as a totalizing structure. Turing, in contrast, focuses on the rational functionality of arithmetics. And Guattari and Deleuze adapt the machine metaphor in order to find a description for processes of subjectivation and desire that takes them beyond a Freudian vocabulary, and that connects such subjectivations to social and ecological strata.

Yet, in virtually all treatments of the modern machine we find the trope of human-machine companionship. Whether we look at political theorist Karl Marx or science historian Georges Canguilhem, or at the father of cybernetics, Norbert Wiener, or at German cultural historian Martin Burckhardt's comprehensive study of the cultural history of the "spirit of the machine," *Vom Geist der Maschine* (1999) – in all of these the direct and necessary coupling and companionship of human and machine are evident. In fact, the concept of the "machine" is always deployed in contrast to the human. Whereas "technics" exists independent of the human, "the machine" is invariably coupled to "man." (And, differently, to "woman", but that's another topic.) Two aspects are therefore constitutive for the notion of the machine that I want to propose here: its coupling to the figure of the human, and its conception as a condition of modern human self-definition.¹⁵

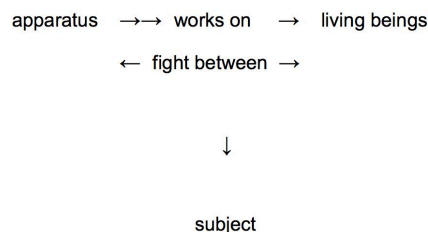
There is a surprising contradiction between the passionate determination with which the notion of the machine has been used in all sorts of context throughout the last century and up

to this day [here at this conference], and the striking diversity of its meanings. The least we must therefore do is to *not* take the machine for granted, and to explain in each instance what type of machine we are talking about.

The more general conception of the machine that I want to propose here attempts a formal, structural description of the relationship between humans and technology, and of the role that the machine plays in that relationship. A "machine" is not a particular type of device or conceptual mechanism with some specific technical features. If this were the case, the use of the term would be so chaotic and unreliable that it would be more or less redundant. However, people speak of machines with so much insistence and passion that there seems to be something particular that they want to express.

There is a similar, and related terminological difficulty with the concept of the "apparatus", which can equally refer to a relatively simple technical device (think of a toaster or a shaver, a *Rasierapparat*), or the complex assemblage of multiple machines and systems, technical or social – what Louis Althusser has conceptualised as the "ideological State apparatuses" which interpellate human individuals as subjects. Michel Foucault discussed the *dispositif* – translated into English as "apparatus" – as composed of technical, social, and institutional infrastructures and practices.

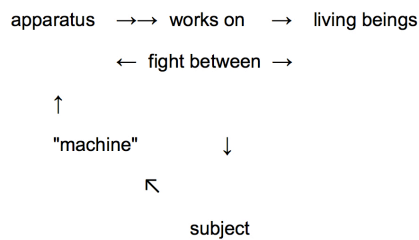
In an essay on the question "What Is an Apparatus?" (2006/2009), Italian philosopher Giorgio Agamben analyzes and extends Foucault's conception of the *dispositif*. In his explanation, Agamben suggests a diagrammatic relation between apparatuses, living beings, and subjects, which – as I want to suggest – can also serve to pinpoint the appearance of the "machine."



Agamben writes: "I shall call an apparatus literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings." The resulting effect of this working of apparatuses on living beings are, "between these two, as a third class, subjects." Agamben

calls “a subject that which results from the relation and, so to speak, from the relentless fight between living beings and apparatuses.”

Like in Althusser’s concept of interpellation, subjectivation here emerges as a product of the *dispositif* at work. In Agamben’s interpretation, technology is one of the sites at which this production of subjectivity takes place.



I would like to adopt Agamben's diagram and propose to add the concept of the machine to it: if the modern “subject” wants to address the “apparatus,” if it wants to speak to or about the apparatus and its workings, it will in all likelihood choose the term “machine”.

The “machine” is not a technological Other, but it is, like the “subject,” a product of the “apparatus,” named and constructed by the subject. The subject speaks of the machine as though it were on the Outside, an Other, yet it is the subject’s technological *doppelgänger*, an apparative sibling, a complementary product of the workings of the apparatus.

This latter diagram is useful for explaining the awkward relationship that people, as human subjects, maintain with machines. It makes it clear that “machine” is not a technical category, but a social one, and that it is a symbolic concept, rather than the descriptive term for a concrete class of technical items. The diagram also shows that it is always a subject that speaks of a “machine”; designating and addressing the “machine” is a projection in the direction of the very apparatus that brings forth the speaking subject.

Two myths of the 20th century: Bachelor Machine and Cyborg

In order to further study how this structure operates within the myth of the machine, we can relate it to two other technological myths of the 20th century, namely the Bachelor Machine, and the Cyborg.

The myth of the Bachelor Machine was "isolated" by Michel Carrouges and elaborated in his publication on *Les machines célibataires* of 1954. Carrouges describes it and traces its variations in a number of literary and artistic examples, from Marcel Duchamp and Alfred Jarry to Franz Kafka and Edgar Allan Poe. According to Carrouges, its *mythographer* (Marc Le Bot), the Bachelor Machine is not a particular type of device, but it is a formal structure that articulates human and technics, life and death, male and female aspects.¹⁶

An even more recent narrative of human and technology, is the feminist myth of the Cyborg that was described and elaborated by Donna Haraway in the mid-1980s.

"By the late twentieth century [writes Haraway], our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism. In short, we are cyborgs. The cyborg is our ontology; it gives us our politics." (p. 292)

The Cyborg myth is designed as a deliberate counter-narrative to aspects of the machine myth, suggesting a re-evaluation of the relationship especially (but not only) of women towards technology.

"The machine is not an *it* to be animated, worshipped and dominated. The machine is us, our processes, an aspect of our embodiment. We can be responsible for machines; *they* do not dominate or threaten us." (p. 315)

Transformations

An important lesson to be learned from the case of the Cyborg myth is that a current mythology is something that is, at the same time, given, and that can be transformed and rewritten at the same time. This affirmation and transformation happens in every instance when a certain myth is narrated.

"One important route for reconstructing socialist-feminist politics is through theory and practice addressed at the social relations of science and technology, including crucially the systems of myth and meanings structuring our imaginations. The cyborg is a kind of disassembled and reassembled, postmodern collective and personal self. This is the self feminists must code." (p. 302)

The social and historical context into which Haraway's Cyborg myth is embedded, are the post-modern and "scary new networks" of an "informatics of domination" (p. 300 ff), a

techno-logical form of power which equally holds potentials for emancipation, and new potentials of submission and disempowerment.

In contrast to the Cyborg, I believe that the notion of the machine is tied to an older, modernist understanding of the human subject, and to an apparative technical paradigm which itself is currently being supplanted by a techno-sphere of networked and ubiquitous systems.

This might result in a transformation of a Cyborgian subjectivity that will no longer be constructed in opposition to technics, but that engenders a subject which experiences itself as an integrated part of such technical systems. The machine myth *intends* (Barthes) an affective black-boxing of technology, giving us reason to break through its conceptual frame.¹⁷

This will make more pressing the question of engineering, of building technical systems and of reconstructing the techno-logos. I wonder whether Haraway has gone far enough in equipping the Cyborg with the means and desires to re-engineer the techno-logos, and to devise alternatives to what Haraway has called the "informatics of domination". At the very end of the *Manifesto*, Haraway mentions the need to develop a powerful, heterogenic way of speaking and doing technics, of building and destroying machines and identities. (p. 316)

The need for such a re-engineering of the techno-logos is highlighted by the discourse on artificial intelligence, which is perhaps only another, yet more debilitating iteration of the machine myth, a sign of the blockade against a critical and emancipatory discourse on technics. What is the *anthropological* effect of a narrative that pitches human intelligence against machine intelligence, and that posits them not only as homologous, but that also – based on Moore's Law – implies an inevitable, eventual supersession of human intellectual leadership by machine-based pattern recognition and decision-making systems? (I'd love to discuss, in this context of an AI-machine art, Trevor Paglen's latest image series, *Adversarially Evolved Hallucinations*, created from retro-engineered image recognition software.)

Resistances

Artistic productions have a special connection with the theme of myth-making, and un-making. To a large extent, mythology is a literary genre, and the myths of modern and postmodern technology – including that of the Cyborg – have often been analysed with reference to science fiction films and literature. Similarly, the story that one can tell about the history of machine art is one of the making and the un-making of the machine myth.

I would like to end by providing you with two examples of how, in the aftermath of this machine myth, the techno-logos is being imagined and projected by artists, offering indications of what interventions into the technological transformation – maybe "resistances" – could look like.

One is more openly oppositional, and it inherits the humorous obstinacy and celebration of dysfunctionality from Bruno Munari and Jean Tinguely. I recognise this attitude in the work of Herwig Weiser, whose installations deconstruct the techno-logics of the moving image, of film and of sculpture by compressing them into objects that are apparatus, medium, display and sculpture at the same time, their operation taking the shape of a transitional, uncalculable event. – I have a sense that Weiser achieves something that Gustav Metzger somewhat failed on with his "auto-destructive art"; Weiser is more successful in offering an alternative, speculative techno-logics because he allows his work to traverse, to pass through the polymorphous materialities of contemporary technics – making the machinic phylum roam beyond the bounds of engineering, building devices that transgress their technological determinations.

A second line of critical work is opened up by notions that have also inspired the alternative myth of the Cyborg: in particular, these are a conception of the "machine" not as one, but as many, as a fabric through which we travel and which we continuously weave, unravel and recompose. Technics is here not conceived as an ontological other, but as the matrix of both subjectivity and agency – true to Haraway's *dictum*, "weaving is for oppositional cyborgs".

This trajectory is laid out by the work of the late Seiko Mikami, a Japanese artist whose interactive installations span the period from the early 1990s to around 2010. Her last major work, *Desire of Codes* (2010), speculates about encounters with forms of artificial intelligence. In the installation, the imagined entity is not represented in a single form, but is distributed across four instances with a multiplicity of technical input and output devices – six robotic arms observing and reflecting individual visitor's movements; a wall of ninety small robotic units that follow and confront several visitors like a swarm; a multi-faceted display that mixes images from local and translocal, current and past visual sources; and a screen display that suggests the synaptic activities in the database which relays the visual data input and output.

While this non-human entity is conceived as a dispersed matrix – for which Mikami has also imagined various paranoiac and dream-like "states of machine mind" –, an earlier work which

Mikami realised together with artist-architect Sota Ichikawa, entitled *gravicells – gravity and resistance* (2004), articulates the systemic and eco-logical relations and interactions between technical, natural, and human actors. The work correlates the physical presence of the visitors with the gravitational forces of the Earth and of communication satellites. Significantly, the question of the human subject is not an issue here. The exhibition visitor is represented only as an area of gravitational force, and walking through the installation is a mere inscription of a body-object into a force field that provides no identitarian feedback.

gravicells suggests a scenario in which gravitation and the mutual influence of different objects—bodies, satellites, the Earth—form a dynamic system. It requires the self-inscription of the interacting human body into an interdependent, techno-ecological system. Here, technology is not an alien Other, but a mode of existence, of being in the world. *gravicells* thus dispels the concept of a “machine” in favor of a system that aesthetically integrates technical, human, and natural elements and treats them on a single plane. – It should be a matter of debate whether such an inscription into a matrix of eco-technological relations is desirable, and in how far the *gravicells* matrix is imbued with the "informatics of domination" that also constitutes the world of Haraway's Cyborg. In any case, however, such an eco-technological environment – which is an apparatus! – requires us to imagine ourselves beyond the binary opposition into which the myth of the machine places us.¹⁸

Like the Cyborg myth, works like those by Seiko Mikami might first and foremost encourage us to accept our hybrid origins, without seeking purity and segregation. On the contrary, very much in the sense of queer thinking, we should strive to develop the emancipatory potentials of blending and – like the cyber feminist Allucquère Rosanne Stone – surrender, together with the binary opposition of “man” or “woman,” also the “either/or” in the relationship between humans and technics.

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Henning Schmidgen: "Thinking technological and biological beings: Gilbert Simondon's philosophy of machines," lecture manuscript, Paris 2004.

Allucquère Rosanne Stone: *The War of Desire and Technology at the Close of the Mechanical Age*. Cambridge, MA: MIT Press, 1996.

End notes

¹ Abstract: The machine has to be placed between quotation marks. The machine of the 20th century (and hence also the machine of "machine art") is based on a conception of technology in which technics is pitched against the human. The notion of the "machine" signifies this antagonistic construction, and most usages of the machine concept articulate and reaffirm this *mythological* structure. Similarly, the discourse on "artificial intelligence" – another modern myth of technology – constructs an ideological formation geared at the subjection of humans under the technological (and bio-political) paradigm of cybernetics (rather than under homologous paradigms of, for instance, spiritualism, animism, or humanism). Poised between anthropomorphism and mechanomorphism, "the machine" is not some essential, authentic entity, but it is the subject of a tale told about humans and their world.

² Michel Foucault: *Les Mots et les choses*, 1966.

³ Cf. Martin Burckhardt: "Das Monster und seine telematische Guillotine." In: Klaus Peter Dencker (ed.): *Interface 5 – Die Politik der Maschine*. Hamburg: Hans Bredow Institut, 2002, p. 54-64.

⁴ Cf. Jan and Aleida Assmann: "Mythos." In: *Handbuch religionswissenschaftlicher Grundbegriffe*. Edited by Hubert Cancik e.a. Stuttgart, 1998, where the authors distinguish between polemical, historical-critical and functional conceptions of myth.

⁵ *Arbeit am Mythos*, 1979/1996, p. 40f, engl. *Work on Myth*, 1985

⁶ The French art historian, Marc Le Bot, in his essay, "The Myth of the Machine" (1975), speaks about it as a new myth that emerges at the end of the 19th century; without reference to Mumford, Le Bot focuses on the "Bachelor Machine" and on the mechanomorphic paintings by Francis Picabia.

⁷ Mumford, cf. dt. S. 20

⁸ cf. dt. S. 24, S. 813

⁹ cf. dt. S. 24

¹⁰ cf. dt. S. 13

¹¹ cf. dt. S. 828, 833, 25.

¹² The notion of the "technical element" is adopted from the philosophy of technology of Gilbert Simondon. Henning Schmidgen (2004), who himself employs no specific usage of the term "machine" which he uses synonymously with "technical object", "laboratory instrument", "technological individual", writes: "As Simondon puts it: 'Concretization gives to the technological object an intermediate position between natural objects and scientific representations.' Differently put: the technological object is not a living being. But it is an individual." (p. 8) – "Simondon introduces differences between technological elements, technological individuals, and technological totalities, or ensembles. Individuals correspond to machines, devices, and engines;

technological elements are best thought of as machine components or simple tools; technological ensembles are vast installations consisting of a variety of machines, devices, and engines, e.g. factories or laboratories." (Schmidgen 2004, p. 9)

¹³ Perhaps seeing the loom and not "a machine" is a source of the power of engineers.

¹⁴ Martin Burckhardt's analysis is quite similar to my own. He calls "the phantasm ... the most reliable companion of the machine" (1999, p. 11) and claims that this phantasmatic relation betrays the assumption that the machine might be sheer rationality as, what Burckhardt calls, an "apparative error" (*apparative Verfehlung*, p. 12). My analysis differs from Burckhardt's wherever he, somewhat contradictorily, assumes that, beyond the generalised "machine as constraint of thought", there is also a "machine in the narrow sense of the word", which he recognises as a technical object, the "machine proper" (*die reale Maschine*, p. 13); instead, I claim that the "machine" is always and only that mythical figure which signifies a specific relation between a subject and an apparatus.

When discussing Freud's conception of the psychic apparatus, Burckhardt first explicitly uses "apparatus" and "machine" interchangeably ("*insofern dieser als Apparat, als Maschine aufgefasst wird*"), and then differentiates ecstatically: "Damit aber ist der psychische Apparat, wie Freud ihn konzipiert, *die Maschine aller Maschinen – eine übergeschichtliche, zeit- und raumlose Apparatur.*" (p. 20)

Burckhardt claims that the machine takes over a formerly theological function and is, in fact, a spiritual entity (*ein geistiges Gebilde*), and thus techno-logos, a "transcendental thing" (p. 15), that acts as a sort of unconscious to Cartesian technical rationality (p. 16). It marks a super-individual constraint and exerts authority. (p. 18) Burckhardt asks: what type of sovereignty is it that finds its highest expression in the machine? (p. 18) What is it that here does not speak for itself, but for everyone, this "aggregate of the collective self-conception"? (p. 19) My answer: it is not a *spirit*, but it is the *myth* of the machine.

A figure that features prominently in Burckhardt's exegesis is that of the King who represents the principle of sovereignty – not as a person or an individual, but as a symptom of a collective organising system ("*Symptom eines kollektiven Ordnungssystems*", p. 23-24); I believe it would be worthwhile to conceive of the figure of the Engineer as a variation on that of the King (a speculation that is perhaps supported by Burckhardt's that, "the sovereign of the machine is worshipped in the figure of [Alan] Turing", p. 307).

¹⁵ This argument is further elaborated in Broeckmann, *Machine Art*, 17-28.

¹⁶ Carrouges says that in the zone of the bachelors (or rather, the celibacy zone, *la zone célibataire*), the male characters represent "either personally or indirectly, solemnly or as caricatures, the *masters of the machine*: in short, the *sovereign power* to construct machines or to decide on their use". (1975, p. 40)

¹⁷ Barthes (1957) speaks of a "deformation" of sense by the myth (dt. p. 103).

¹⁸ A third line of critical artistic work is pursued by the artist group knowbotiq who are experimenting with forms of symbolic and practical resistance against the techno-logistics of labour, by means of idleness and by learning how to be irreducible, by becoming opaque or invisible.