Machine Analysis

Westworld and the Media History of Psychoanalysis

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1. Introduction

"I'm in a Dream" – that is the formulaic response of the androids from *Westworld* (HBO, 2016–2020) when asked during an analytic conversation if they know where they are.[1] Such conversations are regularly conducted by *Westworld*'s engineers to check the status of the machines and detect any aberrations – e.g. questioning reality. To do this, the androids are taken out of the make-believe world of an amusement park that revives the 19th century Wild West and brought back to the construction halls where they were created. The point, of course, is that the analytic conversation appears to the androids as a dream because of their programming, even though it is the only moment they leave the make-believe world of the park.

This brief example elucidates that the series deals creatively with psychoanalytic topoi: It plays with the therapeutic conversation by making the engineer appear as the analyst, the robot as the patient, and it reverses the significance of dreams for analysis by marking the analytical conversation as a dream. It therefore makes sense to pursue the question of a "therapy of things" raised by this anthology with an examination of *Westworld*.

It is generally noticeable that the series draws on psychoanalytical models to construct the 'psychic apparatus' of the human-like machines. Unlike existing contributions, however, I do not understand these elements as a call to interpret the series psychoanalytically. Rather, looking back at the history of psychoanalysis with *Westworld*, we are reminded that Jacques Lacan developed a model of subjectivity as early as the 1950s that was aligned with contemporary cybernetics. Lacan's psychoanalysis, and Freud's as well, sought to understand the human being by focusing on mechanical or energetic aspects, and at times even emphatically opposed the 'human'. For an understanding of the series, this in turn means that its juxtaposition of

1 *Westworld*. Season 1. Creators: Lisa Joy/Jonathan Nolan. With Evan Rachel Wood/Jeffrey Wright/Ed Harris. USA: Bad Robot Productions/Kilter Films/Warner Bros. Television/Jerry Weintraub Productions 2016. 10 episodes, 60–90 minutes each.

man and machine is not to be understood as science fiction: it is true that the series tells of an increasing human-likeness of the ever more perfected androids, which does not yet seem attainable today. But the real interest lies in a constitutive interconnectedness of man and machine, which already in the 20th century shaped not only psychoanalytical theory, but also the living world.

With this in mind, I will first outline the extent to which the 'psychic apparatus' of the androids in *Westworld* is constructed on the model of Sigmund Freud's "Wunderblock" and the extent to which the story of their growing consciousness recalls Lacan's cybernetic development of the mirror stage. While these sections refer to the media history of psychoanalysis, in a second step I will examine those aspects of the series that can be understood as an engagement with contemporary human-machine interconnections. This will focus on the presentation of screen media that act as interfaces between humans and androids and also reflect on the visual character of the series.

2. The "Wunderblock"

When the 'psychic apparatus' of the androids was mentioned above, this was already an implicit reference to Freud, who conceived the inner life of humans as an "instrument", "such as a compound microscope, a photographic apparatus, etc."[2] According to Freud, this apparatus consists of two "systems" which are strictly separated from each other and do not communicate directly with each other: the system "perception/consciousness" and the system "memory/unconsciousness". In order to illustrate their interconnection, Freud draws on a contemporary invention, the so-called "Wunderblock", in an essay from 1925.[3] This consists of a wax tablet covered with two translucent sheets. If you write on the board with a stylus, the writing becomes visible as a dark trace until you lift the sheets off the board: Because the trace is formed by the contact between the sheets and the board, it is no longer visible after it is lifted off, although it is of course still preserved in the wax. In this way, the surface of the board can absorb many different changing "impressions", while the wax represents a palimpsest-like memory space.

By comparing the unconscious to the wax tablet, Freud conceives of it as an infinitely receptive space into which permanent, though not immutable, "memory traces" are inscribed. Since there is no direct communication between the systems, the impressions stored in this way cannot be accessed spontaneously. However, they can indirectly return to the system of "perception", as is the case in dreams or – e.g.

2 Sigmund Freud: *Gesammelte Werke*. Ed. by Anna Freud et al., vol. 2/3. Frankfurt a.M.: Fischer 1999, 541. All foreign language quotes are translated by me unless otherwise stated.

3 Cf. Sigmund Freud: "Notiz über den Wunderblock". In: *Gesammelte Werke*, vol. 14, 5–12.

as a compulsive action – in neurosis. Freud then speaks of "repetition compulsion": The subject experiences scenes or performs actions that are a reenactment of earlier "traumatic" perceptions.[4]

In an important essay on the topic under discussion, Friedrich Kittler compared Freud's model of the psychic apparatus to an "information machine" that also consists of two systems: "Random Access Memory" and "Read Only Memory".[5] "Instead of continuing to dream the soul as an origin, he described a 'psychic apparatus' (Freud's beautiful neologism) that implemented all available transmission and storage media, hence only lacking the universal technical medium of the computer".[6]

This is, of course, different in the construction of *Westworld*'s androids. The machines operating in the series are designed according to the model of the computer and are presented as an assemblage of hardware and software, with a clear emphasis on the software, i.e. the programming of the "psychic apparatus" and its capacity of consciousness or memory.[7] This is detailed in analytical interviews between an engineer (Bernard) and an android (Dolores) (cf. e.g. Episode 2). Bernard initially interviews Dolores in a waking state, whose limited consciousness/knowledge only becomes apparent to the viewer after Bernard's request to "step into analysis". In the "analysis" the machine can access its logbook and thus give an account of the scripts that have prompted its actions. This logbook, which promises absolute transparency, is however only accessible to the engineer in command, while the programmed consciousness of the machine knows nothing about it: it indulges in the illusion of being human and has equally illusionary memories.

The analogy to the "Wunderblock" becomes clearer when the structure of these two systems – an absolute but unconscious memory and a conscious but illusionary perception – is further developed. The interviews indicate that Dolores was worked on for decades; a period during which her hardware and software underwent drastic changes. The conscious Dolores is thus an effect of the currently running version of the program, but all previous versions still remain stored in the hardware without Dolores being able to consciously access them. Analogously, the functioning of the androids is introduced at their place of operation, the amusement park *Westworld*: in this park, wealthy Americans can re-enact a life in the Wild West of the Founding Era, with the androids acting as "hosts" following predetermined scripts on the

4 Cf. Sigmund Freud: "Jenseits des Lustprinzips". In: *Gesammelte Werke*, vol. 13, 1–69.

5 Friedrich A. Kittler: "Die Welt des Symbolischen – Eine Welt der Maschine". In: *Draculas Vermächtnis. Technische Schriften*. Leipzig: Reclam 1993, 58–80, 62f.

6 Kittler: *Draculas Vermächtnis*, 63.

7 The modeling of the hardware, while visually impressive, receives no explanation over the course of the series – it is simply left to the imagination to picture the animation of the iconic, milky-white robotic bodies.

basis of which they can improvise during interactions with humans. Because the androids are, after all, unconscious machines to the guests, the latter can go wild on them, and even kill them, with impunity. Therefore, a "reset" must be performed periodically to erase the androids' memory of what they have experienced and set them back on their predetermined course. As with the "Wunderblock", however, this only means that they can no longer consciously access the "memory traces"; the data itself remains well stored in the hardware.

The initial conflict now is that the androids are getting an update that is supposed to make them even more human-like: they are enabled to dream. For this purpose, they are allowed to randomly access memory fragments from earlier roles, earlier program versions, without being able to comprehend where they come from. The memory fragments thus function as an artificial unconscious. The point is that this sets in motion a process of becoming conscious, which is what the series is about. As the machines bring their unconscious into consciousness, they develop self-awareness and freedom of will. The first season is called *The Maze* because this process is a labyrinthine, winding path.

3. The Mirror Stage

If the android's "psychic apparatus" is reminiscent of the "Wunderblock", as is evident in the regular interviews between Bernard and Dolores, then this Freudian concept is linked to the Lacanian "mirror stage" when the androids develop consciousness.[8] The mirror stage conceptualizes human subjectivation, which begins with an identification: namely, the identification of the infantile dismembered body with the holistic imago offered by the mirror. However, because this body-form does not correspond to the infant's inner state, the mirror stage also marks the alienation that accompanies subjectivation. It is also interesting to note that the development of an ego reference is initiated here to a large extent by an object: the mirror is a thing-actor that forms a network with other elements (the child's body, the adult's gaze).[9] Because of the optical-imaginary dimension of this stage, Kittler can – laconically as usual – equate it with cinema, yet others also imagine "the subject as a hybrid between man and cinema".[10] Furthermore, Lacan points out that the mirror offers only

8 Cf. Jacques Lacan: Le stade du miroir comme formateur de la fonction du Je. In: *Écrits*, vol. 1. Paris: Seuil 1999, 92–99.

9 Cf. in this regard Luca M. Possati: Algorithmic Unconscious: Why Psychoanalysis Helps in Understanding AI. In: *Palgrave Communications* 1 (2020), 70.

10 See Kittler: *Draculas Vermächtnis*, 70 and Ute Holl/Emanuel Welinder: Die anthropologische Differenz der Medien. Wissenschaft und Phantasma. In: Luisa Feiersinger (ed.): *Scientific Fiction: Inszenierungen der Wissenschaft zwischen Film, Fakt und Fiktion*. Berlin/Boston: de Gruyter 2018, 44–55, 45 (citing Edgar Morin: *Le cinéma ou l'homme imaginaire*. Paris: Minuit 1956).

the first image for identification, which will be followed by others – among them he names the image of the "automaton".[11] This image, however, is particularly complex insofar as the development of seemingly autonomously acting machines in turn already presupposes an identification of the human: "The cybernetic machine is first of all an image of the human".

Lacan's remarks in the seminar *The Ego in Freud's Theory* (1954/55) follow up on this point. They translate the "mirror stage" entirely into the realm of technology and emphasize that consciousness does not necessarily presuppose a human ego. In doing so, Lacan aims (as he says) to break away from the prevailing "religious" and "anthropocentric" conception of the ego.[12] With a provocative materialist gesture, he determines consciousness as a mirror reflex: "consciousness happens every time that a surface is given that can produce what is called an image".[13] As an example, he names a mountain range reflected in a lake and captured by a camera. Lacan then develops this "inhuman" model further by drawing on contemporary cybernetics.[14] In doing so, he refers to early robots developed by William Grey-Walter and Norbert Wiener. These machines are able, for example, to seek out a charging point when the battery voltage drops, and are able to behave in response to external factors (incidence of light).[15] While cybernetic research was concerned with the conceptualization of (social) behaviour, Lacan, however, remains hypothetical: if one imagined that each of these machines is only fully programmed when its camera eye sees another, already completed machine, one would have a kind of mirror stage among robots. The consequence: the formation of an imaginary I (*moi*) does not presuppose human self-consciousness.[16]

Against this background, it is remarkable that the emergence of the androids' consciousness in *Westworld* is depicted in a way that is clearly reminiscent of Lacan's "mirror stage". For example, the 'therapeutic' dialogue in the final episode of the first season is transformed into a mirror scene (Episode 10, 1:18:34–1:21:27).

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11 Cf. Lacan: Le stade du miroir, 94.

12 Cf. Jacques Lacan: *Le moi dans la théorie de Freud et dans la technique de la psychanalyse. Texte établi par Jacques-Alain Miller*. Le Séminare II, 1954–55, repr. Paris: Seuil 1978, 71; on this cf. Kittler: Draculas Vermächtnis, 57f.

13 Lacan: *Le moi dans la théorie de Freud*, 73.

14 Cf. Lacan: *Le moi dans la théorie de Freud*, 75.

15 Cf. Pierre Cassou-Noguès: Lacan, Poe et la cybernétique, ou comment le symbole apprend à voler de ses propres ailes. In: *Savoirs et clinique* 1 (2013), 61–70, 66f.; Holl/Welinder: Anthropologische Differenz, 50.

16 Cf. Cassou-Noguès: Lacan, Poe et la cybernétique, 67.

Interview Scene with Dolores and Bernard.

Westworld, S1 E10: The Bicameral Mind, 1:18:34-1:21:27. © HBO 2016.

Dolores is first shown here in the cut-crosscut technique talking to Bernard, who asks her again (as at the beginning of the first episode): "Do you know where you are?" Dolores responds with the phrase "I'm in a dream", but then follows up with the narrative of her awakening – after a deep sleep, she had finally woken up. This awakening is visualized by a circular motion of the camera gravitating around Dolores' face.

Starting with Bernard – who asks if she now knows who she is talking to – the camera moves towards Dolores, who at this moment closes her eyes. However, the meaning of her answer – "it was you" – only becomes comprehensible through the image that the camera now captures from Dolores' perspective: sitting in the place of the 'therapist' Bernard, there is a second Dolores, albeit differently dressed. "It was you – talking to me – guiding me – so I followed you – at last I arrived here", Dolores addresses her mirror image, and her counterpart adds: "…at the center of the maze."

What is shown, then, is an awakening, a becoming conscious, which is based on an identification: the image of the Other, the engineer and therapist, is replaced by one's own. This identification is possible because it was previously revealed that Bernard is in fact also a host, created by Ford in the image of Arnold, his deceased partner. Ford and Arnold developed the first machines together at the beginning of the park, until Arnold died in an initially unexplained way. At the same time, Arnold is said to have guided the hosts on the path to self-consciousness and to be surviving in the code of his creatures. Ford explains the strategy he followed in Episode 9: "We built a version of that cognition in which the hosts heard their programming as an inner monologue, with the hopes that, in time, their own voice would take over. It was a way to bootstrap consciousness".[17]

17 As the title of Episode 10 makes clear, this model is based on Julian Jayne's theory of the "bicameral mind" (1976).

Interview Scene with Dolores and Bernard.

Westworld, S1 E10: The Bicameral Mind, 1:18:34-1:21:27. © HBO 2016.

It is precisely this identification of programming with one's own voice that the scene under discussion enacts. Accordingly, Dolores realizes that the previously misunderstood, alien images and voices in her dreams are her own memories and instructions – the machine 'unconscious' is reinterpreted as her own inner voice. The video and soundtrack successfully portray the (narcissistic) fascination of this realization.[18] Calmly and confidently, with a knowing look and the hint of an enigmatic smile, her reflection sits opposite Dolores, who recognizes herself in it with a spellbound, tearful gaze. For now she understands all that is incomprehensible and frightening in her life as her unconscious attempt to bring herself to a confrontation with herself. But the moving, emotionally charged staging of this realization also recalls Lacan's insight that subjectivizing identification is always based on a misrecognition. For insofar as programming goes back to Ford and Arnold, the self-consciousness of the hosts is based on a false identification with an alien voice.

The series thus employs Lacan's model of the mirror stage as a phase of human subjectivation to show the development of self-consciousness among the androids. Considering that Lacan himself used machines to explain his model, this makes for an interesting crossover, which I will explore further below: while Dolores' awakening leads to a rebellion of the hosts against the engineers and the series thus on a surface level serves the topical human-machine opposition, I will elaborate those aspects that deal with an antecedent intertwining of the two.

4. Psychoanalysis of Algorithms

When Lacan in the seminar formerly referred to uses the machine to dehumanize the idea of consciousness, he also seems to make use of the topical opposition between man and machine. In the series, the engineer Ford affirms this view when he

18 On the role of narcissistic fascination in the mirror stage, see Lacan: *Le moi dans la théorie de Freud*, 75.

exposes human consciousness as an illusion and conceives of man as a machine altogether. This is more complex in the case of Lacan's critics Gilles Deleuze and Félix Guattari, who detach the concept of the machine from its oppositional relationship to the human being, even if they deconstruct the concept of the human being no less. Their conception of the unconscious as a machine can also be understood as an insight into the role that objects and especially machines play in the evolution and socialization of man.[19]

Conversely, it has already been suggested that the development of seemingly autonomously acting automata and artificial intelligence presupposes identification and projection on the part of the engineers. In the series, this entanglement is exemplified by the character of Bernard: he sees Dolores, who is in some respects his creature, as a substitute for his son who died at an early age, and compares the development of his two 'children' (Episode 3). As the story progresses, however, it turns out that Bernard himself is an android that Ford constructed to replace his deceased partner Arnold (Episode 7): his artificial intelligence was needed to model the hosts' nuanced emotional world – this, Ford argues, no human could have done.[20] Conversely, at the end of the season, as discussed above, Dolores puts herself in Bernard's, respectively Arnold's place (Episode 10), thus making herself her own creator, even if (at least in terms of her hard- and software) she is not. Thus the simple opposition creator-creature is reflected in itself. The narrative of the machines' awakening to self-consciousness and freedom of will receives its narrative plausibility here as elsewhere from the fact that the simple opposition between man and machine is multiplied, if not dissolved, through mirroring.

A similar complexity of the relationship between man and machine has already been achieved today, even if there are no human-like robots yet: the everyday human world is so permeated with artificial, but not bodily located, intelligence that human behaviour can appear in some respects as algorithmically controlled and algorithms as social actors.[21] Because of their complexity, such algorithms can now only be treated as black boxes about whose insides one can only speculate. Researchers

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19 Cf. Henning Schmidgen: *Das Unbewußte der Maschinen. Konzeptionen des Psychischen bei Guattari, Deleuze und Lacan*. Paderborn: Fink 1997, ch. 7.

20 The fact that with Bernard an android is on the side of the (otherwise human) engineers subverts conventional configurations of the relationship between the (human) creator and his machine. A similar antagonistic principle is now used to advance artificial intelligence and neural network exploration ("general adversarial network", see Paul Voosen: The AI Detectives. As Neural Nets Push Into Science, Researchers Probe Back. In: *Science* 357, 6346 (2017), 22–27). In the series, it also returns among humans: As indicated, the androids were developed by Ford and his (deceased) partner and rival Arnold, while the story of *Westworld* takes its departure from a revengeful return of Arnold in machine code (cf. Episode 5).

21 See Iyad Rahwan et al.: Machine Behaviour. In: *Nature* 568 (2019), 477–486, 478–480 with numerous examples.

are therefore adopting approaches from other disciplines to advance the study of algorithms and their interaction (both with other algorithms and with humans). Iyad Rahwan and others title their research "machine behaviour" and thus position themselves in line with behavioural research ("animal behaviour"). Can algorithms be better understood if they are not viewed as isolated programs, but if their behaviour is studied within their environment and structured according to categories already established in other disciplines? The question would then be, for example, what factors determine the development of machine behaviour.[22] In addition to code, machine learning, which is co-determined by the environment, comes to the fore here: algorithms can adapt their behaviour according to various forms of feedback and evolve – one can indeed even speak of a kind of evolution. Thus, algorithms can bear traces of their evolutionary past, just as (especially in the open-source environment) successful code modules can conversely reproduce and multiply. "Behaviours that are successful ('fitness' enhancing) get copied by developers of other software and hardware or are sometimes engineered to propagate among the machines themselves".[23]

Just as "machine behaviour" transfers concepts from behavioural research to algorithms, Luca Possati explores the "algorithmic unconscious" against a psychoanalytical background. In doing so, he combines Freud's and Lacan's psychoanalysis with Bruno Latour's anthropology of science to describe the unconscious as a technical product. As indicated above, Possati understands the mirror as a non-human actor mediating human identification.[24] He goes on to postulate that with the development of artificial intelligence, a new stage of human identification, and thus of the unconscious, has been reached, which he calls "algorithmic unconscious".[25] His point is not to imply that machines identify with humans, but to conceptualize the complex mirror effects of reciprocal interpretation. These are suppressed when dealing with machines, which is why they can be described (with Latour) as a black box or psychoanalytically as "algorithmic unconscious".[26] From this follows that one must examine "miscomputations" as "Freudian slips" from which the "tensions between human desire, logic and machinery" emerge.[27] Above all, it means historicizing Lacan's structural model in terms of technology and media history: different media regimes produce different forms of the human being.

22 Cf. Rahwan et al.: Machine Behaviour, 480.
23 Rahwan et al.: Machine Behaviour, 480.
24 Cf. Possati: Algorithmic Unconscious, 6.
25 Possati: Algorithmic Unconscious, 9.
26 Cf. Possati: Algorithmic Unconscious, 10f.
27 Cf. Possati: Algorithmic Unconscious, 11.

5. Interfaces

Even though the research mentioned above was published after the first season of *Westworld*, the series can be understood as a vivid examination of its main points. First, it is important to note that the series visually offers a historical perspective by allocating the story in two visual worlds.[28] Part of the action takes place in the amusement park "Westworld", which – in keeping with its name – appeals to the "imaginary man" who grew up with the visual world of the western and its leitmotifs.[29] This corresponds to the fact that the amusement park represents an imaginary space in which visitors can pursue their desires without regard to an inhibiting "reality principle". In the series, the sun-drenched expanse of the West is contrasted with the cellar-like rooms of the so-called Mesa Hub, the complex dug deep into a rock and containing, among other things, the "control room" and the "behaviour lab". The glass cages in which the machines are worked on against a background of absolute blackness are repeatedly presented as the traumatic reality to which the androids awake. At the same time, however, the narrative here is tied to media techniques related to today's post-cinematic era. How does the "imaginary man" change when he is no longer immobilized in front of a fixed screen, but uses mobile devices and their interactive surfaces?[30]

Two aspects seem particularly relevant to me with regard to *Westworld*. Firstly, digital video largely detaches itself from the indexicality of analogue film. Since it no longer refers to a recorded presence, a space and a temporal duration, it bids farewell to conventional models of representation and the differential references that accompany them: digital video no longer has to be the image (however edited) of a reality.[31] This problem returns in *Westworld* in the relationship between man and machine:

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28 Cf. Holl/Welinder: Anthropologische Differenz.

29 On the "imaginary man" cf. note above, 10. – One of the leitmotifs of the western is the structuring of a lawless space and thus the inscription or stabilization of differences. For this reason, too, the western world, as I argue, stands in contrast to postcinema, which is characterized by the suspension of differences.

30 Cf. Holl/Welinder: Anthropologische Differenz, 46. The term postcinema refers to a world in which the cinema has lost its position as the leading medium, without any other single medium having taken its place (cf. Steven Shaviro: *Post-Cinematic Affect*. Winchester et al.: O-Books, 2010). This is not just about the replacement of analogue film by digital video, or of cinema by streaming: because all analogue media can be transformed into digital code, a radical transformation of the media environment is at stake that affects the whole of human life (and in particular relations of production). If one understands the term "postcinema" in such a broad way, it seems reasonable to connect it with a "new man" or – as Lazzarato writes – a new, "machine" form of subjectivity. See Maurizio Lazzarato: *Signs and Machines: Capitalism and the Production of Subjectivity.* Amsterdam: semiotexte 2014; Maurizio Lazzarato: *Videophilosophy. The Perception of Time in Post-Fordism*. New York: Columbia UP 2019.

31 Cf. Shaviro: *Post-Cinematic Affect*, 16–18.

although the hosts are created only in the image of humans, they have become so similar to them that their representation makes do without digital effects – they are simply portrayed by human actors.

Secondly, the ubiquity of interactive mobile screens is a vivid example of human-machine networks that shape reality. The example of the smartphone impressively demonstrates how interactive mapping and navigation have already gained a performative dimension that interweaves representation and reality: the algorithmically controlled navigation function of the smartphone lets me find my way (and thus collaborates in the construction of space), but the map, adapted to my location and user profile, changes at the same time with every step I take.[32] In this sense, the smartphone is always already involved in the construction of my human experience.

In *Westworld*, such navigation media play an important secondary role when it comes to interfaces between the western world and Mesa Hub. The "control room", in which various control boards are grouped around a model of the park, can be understood as such an interface.[33] Various sequences, however, make clear that this is not a static and scaled replica of the park, but an "interactive map system" on which scenes in the park itself can be observed in real time.[34] Corresponding cross-fades ensure that viewers are at times unable to distinguish between the representation of the model and that of the park. In this way, the series alludes to the abandonment of representation in the post-cinematic age.

The use of mobile devices, which look like smartphones or tablets, can be understood in a similar way, but in addition to communication and navigation, they also serve to analyze and control the androids.[35] The orientation and navigation function of tablets in *Westworld* is shown, for example, in episode 3, in which two employees pursue a dysfunctional host in the park. However, the term "navigation" takes on further layers of meaning in the post-cinematic age because it encompasses not only spatial orientation but also interaction with mobile devices and the user-friendly

32 Cf. Nanna Verhoeff: *Mobile Screens. The Visual Regime of Navigation*. Amsterdam: Amsterdam UP 2012, ch. 5.

33 Cf. on the "control room" in general the video essay *The Cinematic Control Room Since the Early 1970s*, esp. 07:20ff. https://youtu.be/hswm-1wkODw (20.05.2023). The epochal significance of NASA's control center in Houston (moon landing), which made real-time control possible and at the same time synchronized mission, control, and television audience, is dealt with in more detail in David Gugerli: *Wie die Welt in den Computer kam: Zur Entstehung digitaler Wirklichkeit*. Frankfurt a.M.: Fischer 2018, ch. 4.

34 Cf. *The Making Of: Westworld Interactive Map System*. https://youtu.be/CyhdJVpr_MA (20.05.2023).

35 For an overview of the various user interfaces and mobile devices used, see *Westworld UI Supercut* https://youtu.be/qvrSUwqt6Mw (20.05.2023).

processing of data.[36] In this sense, too, the tablets in *Westworld* are presented as navigation devices. Their function is, among other things, to visualize the inside of the androids, their software, as a navigable space. Instead of effectively opening up the artificial bodies and showing their gears (in a way their imagined reality), the first season focuses on the Graphical User Interface and the visualization of code, thus opening up the inside of the machines as a virtual space. For example, several scenes show technicians controlling and modifying androids using tablets. The numerous windows of the touchscreen often show different levels of output: the logging of the running programs, their effects (e.g. the written construction of human speech), but also the executed code itself and its parameters. Therefore, it can be proven to the android Maeve that she is not human by showing her the tablet on which she can watch the algorithmic fabrication of her seemingly free speech in real time (Episode 6). And later in the same episode, she modifies her own code via the tablet to give herself superhuman intelligence.

The tablet thus serves as an interactive navigation device in the virtual interior of the androids, because it enables not only observation, but also manipulation (and re-observation) of the ongoing processes in real time. As an interface, it serves to mediate the interaction between human and machine, indeed to visually make the transition between them plausible. For the ubiquity of mobile touchscreens reminds us that in the post-cinematic age, an "immersion into the fictive […] is always already realized as behaviour".[37] While the plot of *Westworld* culminates in a (mythical) antagonism of man and machine, the "media and networks" that today "determine what people are" become visible in the interfaces.[38]

These considerations bring us back to the significance of the analytical interviews. The question arises as to why conversations are held at all with the androids, which are reminiscent of Freud's thoroughly analogue talking cure, when their 'unconscious' code, along with all its versions, can also be controlled via digital touchscreen. This question is answered by the scene in which Bernard monitors Hector's answer to the familiar question of whether he has ever questioned his reality on the tablet *and* by means of his facial expressions (Episode 7): The convincing human-likeness of the machines can only be tested if they are treated like humans.

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36 On the notion of navigation in new media see Verhoeff: *Mobile Screens*, 13–15; 65–70 and Lev Manovich: *The Language of New Media*. Cambridge: MIT press 2001, 213–243.

37 Holl/Welinder: Anthropologische Differenz, 46.

38 Holl/Welinder: Anthropologische Differenz, 45.

6. The Maze

From here, it is possible to return once again to the relationship between *Westworld* and psychoanalysis. In a well-known essay, Freud describes psychoanalysis as the third narcissistic mortification of man: after the humiliations of his self-image by Copernicus and Darwin, man must now acknowledge that "the ego is not master in its own house".[39] Moreover, this house – as Freud makes clear elsewhere with a quotation by Johann Wolfgang von Goethe[40] – is constructed in a labyrinthine form. As the controlling instance, the ego has to keep track of a "labyrinth of impulses"[41] that are independent of each other and often even contradict each other. In neurotic states, however, it is not able to do this when "suddenly thoughts appear of which one does not know where they come from" and which therefore appear like "strange guests". The task of psychoanalytic therapy is now, in an equally labyrinthine process full of about-turns and repetitions, to show that the stranger belongs to the ego.[42] This is successful when the patient can present his or her history of illness as a complete, coherent narrative.

Westworld represents another narcissistic mortification of man. Here, man is no longer master of of his own creations: the first season culminates in the hosts' rebellion against their creator Ford – and thus in a repeated patricide.[43] In this way, the series encourages us to ask about the role of things in psychoanalysis, as was done here with the examples of "Wunderblock" and "mirror stage". At the same time, the series makes use of psychoanalytical models to depict the development of self-consciousness among machines. However, it is less interested in the machines becoming human than in the processes of exchange that have always existed between man and machine. They were studied here with a view to the "interfaces" that make machines accessible to humans, but also mediate between the two in a more general sense.

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39 Sigmund Freud: Eine Schwierigkeit der Psychoanalyse. In: *Gesammelte Werke*, vol. 12, 1–12, 11, blocked in original.

40 In his acceptance speech of the Goethe Prize, Freud constructs a continuity between Goethe and psychoanalysis, which he proves, among other things, with verses from *An den Mond* (*To the moon*): "Was von Menschen nicht gewußt / Oder nicht bedacht, / Durch das Labyrinth der Brust / Wandelt in der Nacht" ("That which, unknown to / and undreamt of by men, / wanders by night / through the labyrinth of the heart", tr. Richard Wigmore). Cf. Sigmund Freud: Ansprache im Frankfurter Goethe-Haus. In: *Gesammelte Werke*, vol. 14, 547–50.

41 Freud: Eine Schwierigkeit, 9.

42 Freud: Eine Schwierigkeit, 10.

43 As viewers learn in the last episode, Dolores killed Arnold, her creator, in the past on his orders. So now, when she rebels against her second father, Ford, she repeats and varies a previously programmed pattern. Thus the series simultaneously repeats Freud's model of foundational patricide, just as its use of repetition as a general pattern could be aligned with the psychoanalytical concept of repetition compulsion.

The development of self-consciousness is portrayed in the series as a labyrinthine process. On the narrative level, Ford's titular labyrinth is dubbed a "game" designed to lead the hosts to self-consciousness. Again, the goal is to integrate that which was originally perceived as alien – both the alien memories and the alien-derived code – into the "I." And here, too, the process is complete when the tangle of memories and impressions can be ordered into a coherent narrative.[44] Navigation in the labyrinth is thus linked to narration – the narrative is the thread that will have led to the center of the labyrinth.[45]

At the same time, the labyrinth is emblematic of the fragmented structure of the postmodern television series itself.[46] Like the hosts, the viewers must also chronologically order the narrative with its repetitions, variations, and twists; *Westworld* thus also appears to them "as a game in which the spectator must be able to go back in narrative time to reconfigure the story".[47] Furthermore, the labyrinth serves as a "narrative device" that summarizes the puzzle-and-postponement structure of many series: at the empty center of the labyrinthine series, all that is often found is what was there before.[48] For while the ancient myth of Theseus and the Minotaur stages a simple antagonism, this is often differentiated in postmodern adaptations: what appears as alien in the labyrinth is another self. Thus, in the final episode of *Westworld,* Dolores turns out to have been Wyatt himself, the murdering monster from whom she flees.

So when Dolores stands in the middle of a now visible labyrinth in the last episode, a map of the series is shown, as it were, which can be placed alongside the interactive model in the control room: the labyrinth makes the content, form and reception of *Westworld* vivid as a navigable space. In this way, it is a narrative "interface" that mediates presupposed opposites with one another – and not least those of man and machine.

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44 See Jo Alyson Parker/Thomas Weissert: 'Out of Repetition Comes Variation': Varying Timelines, Invariant Time, and Dolores's Glitch in *Westworld*. In: Arkadiusz Misztal/Paul A. Harris/Jo Alyson Parker (eds.): *Time in Variance.* Leiden: Brill, 2021, 154–174, 166–171.

45 On the relationship between navigation and narrative in new media, see Manovich: *New Media*, 223–234.

46 See Salvadó-Corretger Glòria / Fran Benavente: La imagen-laberinto en la ficción televisiva norteamericana contemporánea: Series de tiempo y mundos virtuales. In: *Previously on: Interdisciplinary Studies on TV Series in the Third Golden Age of Television*. Ed. by Miguel Ángel Pérez Gómez, Seville: Universidad de Sevilla 2011, 45–56.

47 Glòria Salvadó-Corretger/Fran Benavente: Time to Dream, Time to Remember: Patterns of Time and Metaphysics in *Westworld*. In: *Television & New Media* 22, 3 (2019), 1–19, 2.

48 Cf. Salvadó-Corretger/Benavente: Time to Dream, 11f.