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What is Feminist Media Archaeology?

Jörgen Skågeby, Dept. of Media Studies, Stockholm University, Sweden, jorgen.behrendtz@ims.su.se

Lina Rahm, Linköping University, Sweden, lina.rahm@liu.se

In a fairly recent blog post, Jussi Parikka discusses how media archaeology can be criticized for being a “boy’s club”. In the introduction of this text, he writes: One of the set critiques of media archaeology is that it is a boys' club. That is a correct evaluation in so many ways when one has a look at the topics as well as authors of the circle of writers broadly understood part of 'media archaeology'. I make the same argument for instance in *What is Media Archaeology?*, but there is also something else that we need to attend to. There is however a danger that the critique also neglects the multiplicity inherent in the approach. For sure, there are critical points to be made in so many aspects of Kittler's and others' theoretical work, but at the same time it feels unfair to neglect the various female authors and artists at the core of the field. In other words, the critique often turns a blind eye to the women who are actively involved in media archaeology. Let's not write them out too easily. Parikka then goes on to briefly introduce several female researchers and artists who are active in the media archaeological field. These are women who are, in different ways, doing media archaeology. This is of course an important issue – skewed representations or lopsided citation practices are never good – and the contributions of these researchers are significant and important. However, we could also argue that there is an important difference between the body of work being done by women and, what we may call, feminist media archaeology. There can, of course, be overlaps between these two ways of representing feminist interests in media archaeology, but for feminist theorizing and practising to truly have an impact, we have to ask ourselves what is feminist media archaeology? By looking for empirical gaps and putting questions of, for example, design, power, infrastructure and benefit, to the fore we can shine a different light on the material-discursive genealogy of digital culture, still very much in the vein of media archaeological endeavors. What we suggest is quite simple – a transdisciplinary approach which emphasizes “the unity of intellectual frameworks beyond the disciplinary perspectives [which] points toward our potential to think in terms of frameworks, concepts, techniques, and vocabulary that we have not yet imagined”. As such, we want to take an exploratory tactic to the question posed in the title of this paper. We do not intend to provide a single nor definite answer – rather we want to think with media archaeology and feminism

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together, seeking to raise other questions in order to find dynamic parallels and crosscurrents.

Keywords: improper historiography, design, queer failure

Introduction

In a fairly recent blog post¹, Jussi Parikka discusses how media archaeology can be criticized for being a “boy’s club”. In the introduction of his text, he writes:

One of the set critiques of media archaeology is that it is a boys' club. That is a correct evaluation in so many ways when one has a look at the topics as well as authors of the circle of writers broadly understood [as] part of 'media archaeology'. I make the same argument for instance in *What is Media Archaeology?*, but there is also something else that we need to attend to.

There is however a danger that the critique also neglects the multiplicity inherent in the approach. For sure, there are critical points to be made in so many aspects of Kittler's and others' theoretical work, but at the same time it feels unfair to neglect the various female authors and artists at the core of the field. In other words, the critique often turns a blind eye to the women who are actively involved in media archaeology. Let's not write them out too easily.

Parikka then proceeds to briefly introducing several female researchers and artists who are active in the media archaeological field. These are women who are, in different ways, *doing* media archaeology. This is of course an important issue – skewed representations or lopsided citation practices are never good – and the contributions of these researchers, artists, and practitioners are significant. However, we would argue that there is also an important difference between the body of work being done by women and, what we may call, *Feminist Media Archaeology*. There can, of course, be overlaps between these two ways of representing feminist interests in media archaeology, but for understanding how feminist theorizing and practicing can truly have an impact, we have to ask ourselves what is *feminist* media archaeology?

While Parikka is but one scholar, whose role as a mediator across languages gives him greater visibility, the overall field of media archaeology, naturally, emerges from a wide range of researchers and practitioners, and is characterized by great variation, opposing arguments, and even conflicts². Works by authors such as Vismann³, Riis⁴, Siegert⁵, Kirschenbaum⁶, Parisi⁷, Natale⁸, and Bollmer⁹, as well as edited volumes by

¹ Jussi Parikka to Cartographies of Media Archaeology, Jul 10, 2013, <http://mediacartographies.blogspot.se/2013/07/women-and-media-archaeology.html>.

² Thomas Elsaesser, "Media Archaeology as Symptom," *New Review of Film and Television Studies* 14, no. 2 (2016).

³ Cornelia Vismann, *Files: Law and Media Technology*, trans. Geoffrey Winthrop-Young (Stanford: Stanford University Press, 2008).

⁴ Morten Riis, *Machine Music: A Media Archaeological Excavation* (Aarhus: Aarhus University Press, 2016).

⁵ Bernhard Siegert, *Cultural Techniques: Grids, Filters, Doors, and Other Articulations of the Real* (New York: Fordham University Press, 2015).

⁶ Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2012).

⁷ David Parisi, *Archaeologies of Touch: Interfacing with Haptics from Electricity to Computing* (Minneapolis: University of Minnesota Press, 2018).

⁸ Simone Natale, *Supernatural Entertainments: Victorian Spiritualism and the Rise of Modern Media Culture* (University Park, PA: Pennsylvania State University Press, 2016).

⁹ Grant Bollmer, *Inhuman Networks: Social Media and the Archaeology of Connection* (New York: Bloomsbury, 2018).

Malloy¹⁰, Chun, Fisher & Keenan¹¹, and Gitelman & Pingree¹², all provide different directions and takes on media archaeology. Textually mapping out this field, including all its continuities, disruptions and overlaps, and then summarizing it within the boundaries of this paper, would prove an impossible task. Nevertheless, the previously mentioned blog post by Parikka, a key figure in the field, can be taken as an indication that feminist criticism of media archaeology is a recurring issue. It would also seem that little research has been specifically devoted to counter, or assimilate, this critique. The *politics of genealogies (or archaeologies)*, for example concerning power differentials, that Foucault, a scholar often cited as a forefather of media archaeology, saw as inscribed in both bodies, artefacts and emotions¹³, appears to be somewhat overlooked, in favor of a more machine- or perception-oriented emphasis.

So, how should we proceed from these premises? There are several ways, and before we present our own approach, we want to discuss one of the alternative routes. That is, one could argue that there are strong reasons behind the fact that important feminist work has been excluded from media archaeology, and vice versa. Arguably, the very intention of media archaeology has been to *downplay* social structures in favor of structural-technical (or cultural-technical) determinations (see, for example, the arguments made for a radical media archaeology by Wolfgang Ernst¹⁴). Likewise, some of the feminist authors introduced later in this paper, would probably recoil from aspects of the media archaeological agenda. This route would consequently seek to retain, and even celebrate, existing contestation, and acknowledge the very situatedness, and deliberately discordant interventions, of feminist technoscience and media archaeology respectively. In many ways, it would require scholars to ‘pick sides’. Either you go with feminist technoscience (and reject the deeply flawed ‘techno-determinist’ premises of media archaeology), or you go with media archaeology (and reject the naïve over-emphasis of the social structures of human technology use). Arguably, such an approach would also render a *feminist* media archaeology as something essentially superfluous (or even impossible).

Alternatively, you could take a slightly more ‘inclusive’ approach, and try to identify how the fields genealogically overlap, or not (e.g. in terms of epistemological vantage points and roots). This does not mean simply rebranding anything remotely relatable from feminist technoscience (or other neighboring discipline), and include it under the umbrella of media archaeology, but to seek out how the specific methods and concepts of *each* field (including their differences, non-identities and ruptures) can co-inform each other – for example, by reading the historical specificity and development of technological preconditions *alongside* gendered regimes of visibility¹⁵. The key is to consider how power, affects and practices are entangled with media materialities, and pose questions such as: can the “epistemic momentum which arises from close technical

¹⁰ Judy Malloy, ed. *Social Media Archaeology and Poetics* (Cambridge, MA: MIT Press, 2016).

¹¹ Wendy Hui Kyong Chun, Anna Watkins Fisher, and Thomas W. Keenan, eds., *New Media, Old Media: A History and Theory Reader* (London: Routledge, 2016).

¹² Lisa Gitelman and Geoffrey B. Pingree, eds., *New Media 1740-1915* (Cambridge, MA: MIT Press, 2003).

¹³ Michel Foucault, "Nietzsche, Genealogy, History," in *The Foucault Reader: An Introduction to Foucault's Thoughts*, ed. Paul Rabinow (London & New York: Penguin Books Ltd., 1984).

¹⁴ Wolfgang Ernst, "Radical Media Archaeology (Its Epistemology, Aesthetics, and Case Studies)," *Artnodes*, no. 21 (2018).

¹⁵ Chrissy Thompson and Mark A. Wood, "A Media Archaeology of the Creepshot," *Feminist Media Studies* 18, no. 4 (2018).

and philosophical analysis of what happens *within* the [...] apparatus itself¹⁶ also be placed in a wider analytical context where the knowledge (the analysis of) that epistemic momentum produces is also scrutinized?

As can be deduced from its title, this paper will take the more inclusive approach, and suggest that a fruitful way to explore what feminist media archaeology *can be*, and how it can be practiced, is by '*asking other questions*'¹⁷. Notably, media archaeology already supports a sensibility towards accommodating a wider range of perspectives¹⁸ - as Parikka writes, media archaeological inquiry is "[...] political, aesthetic, economic, technological, scientific, and more - and we should refuse attempts to leave out any of the aspects"¹⁹. As such, this paper wants to unpack the "and more" part of this statement, and explore productive touching points between media archaeology and *feminist* theorizing. Feminist methodologies, ontologies and epistemologies are, of course, also pluralistic and diverse (e.g. feminist empiricism, feminist standpoint, postmodern feminism, sexual difference, agential realism & situated knowledges). Within the frame of this paper, we see this as a dual openness that could warrant a rewarding amalgamation, which could enrich the agenda of both media archaeology and feminist media research in general. Just to give an idea, feminist research has applied a recurring critical perspective on cultural essentialism and power, and a reflexivity and moral accountability when it comes to producing and presenting scientific results as neutral and objective. Further, feminist approaches also address empirical issues of (mis)representation that have followed from the repetition of *certain* narratives and discourses, and not others. In parallel, media studies is taking influence from science and technology studies, as well as more materially-oriented pockets of communication studies, in order to theorize "material artifacts, communication practices, and social arrangements or structures as mutually-constitutive elements of communication and media technology"²⁰. By looking for empirical gaps and putting questions of, for example, design, power, infrastructure and benefit, to the fore we can shine a different light on the material-discursive genealogy of digital culture, still very much in the vein of media archaeological endeavors. What we suggest is quite simple - a *transdisciplinary* approach which emphasizes "the unity of intellectual frameworks beyond the disciplinary perspectives [which] points toward our potential to think in terms of frameworks, concepts, techniques, and vocabulary that we have not yet imagined"²¹. As such, we want to take an exploratory tactic to the question posed in the title of this paper. We do not intend to provide a single nor definite answer - rather we want to think with media archaeology and feminism together, seeking to raise *other questions* in order to find dynamic parallels and crosscurrents. The, perhaps pretentious, purpose of this paper is thus to be 'useful', in the sense of suggesting potential starting points for transdisciplinary synergies and alliances.

¹⁶ Ernst, 37.

¹⁷ Maria J. Matsuda, "Beside My Sister, Facing the Enemy: Legal Theory out of Coalition," *Stanford Law Review* 43, no. 6 (1991).

¹⁸ Jussi Parikka, *What Is Media Archaeology?* (Malden, MA: Polity Press, 2012), 163-64.

¹⁹ *Ibid.*, 18.

²⁰ Leah Lievrouw, "Materiality and Media in Communication and Technology Studies: An Unfinished Project," in *Media Technologies: Essays on Communication, Materiality, and Society*, ed. Tarleton Gillespie, Pablo Boczkowski, and Kirsten Foot (Cambridge, MA: MIT Press, 2014), 21.

²¹ Julie A. Buckler, "Towards a New Model of General Education at Harvard College," *Essays on General Education in Harvard College* (2004), <http://sites.harvard.edu/fs/docs/icb.topic733185.files/Buckler.pdf>.

Towards a feminist media archaeology

On a conceptual level, and in terms of research interests, media archaeology and feminist thinking, already have significant overlaps that have not always been clearly explicated. Ideas such as an archaeology²², imaginary media²³, the anthroscene²⁴, and media-technological sidetracks have academical companions in willfulness²⁵, speculative fiction, naturecultures, and queer failures²⁶. One could even argue a kinship in the media archaeological notion of media (or cultural techniques) as a structural, but ubiquitous, foundation for agency, and the fundamentally feminist idea of structural patterns of power asymmetries in society, also regulating the available repertoire of specific actions. While media archaeology already holds an ambition to read media history ‘against the grain’²⁷, so far, this ambition has only been partly fulfilled – many ‘power grains’ have been left untouched (particularly in analysis, perhaps less so in media archaeological art). Cutting across additional alignments (i.e. not only grains of teleology and market success, but also other power structures and even inclinations) can be a way to expand the (an)archaeological agenda in a feminist sense. In one of the rather few explicit accounts where feminist ideas and media archaeology meet, Pietrobruno²⁸ shows firstly, that issues of gender and intersectionality are often missing from current media archaeological work, and secondly, that there are examples that could be labelled as feminist media archaeological studies, but which have not always been framed as such, including works by Lynn Spigel, Donna Haraway, Susan Stewart, and Wanda Strauven, that provide both important insights as well as inspiration for future studies. In a similar vein, this paper seeks to find such touching points, but instead of searching for particular examples that can be (re-)categorized as feminist media archaeology, this paper wants to address the question of how we can conceptualize a feminist approach to media archaeology for future research. The question is where to start such an endeavor? Like Parikka suggests²⁹, we must perhaps always start ‘in the middle’. As such, we refer to the conclusion of the paper *Speculative before the turn*, by Åsberg, Thiele and van der Tuin, who suggest that a feminist approach should:

turn towards an occasionally academically improper historiography of feminist materialist thought, one that includes bio-philosophy as much as bio-critique, art, activism, fiction, poetry and rigorous theorising mixed—with a careful attention

²² Siegfried Zielinski, *Deep Time of the Media: Toward and Archaeology of Hearing and Seeing by Technical Means* (Cambridge, MA: MIT Press, 2006).

²³ Steven Connor, *Dream Machines* (London: Open Humanities Press, 2017).

²⁴ Jussi Parikka, *The Anthroscene* (Minneapolis: University of Minnesota Press, 2015).

²⁵ Sara Ahmed, "Willful Parts: Problem Characters or the Problem of Character," *New literary history* 42, no. 2 (2011).

²⁶ Judith Halberstam, *The Queer Art of Failure* (Durham, NC: Duke University Press, 2011).

²⁷ Geert Lovink, "Archive Rumbings: An Interview with Wolfgang Ernst," in *Digital Memory and the Archive* (Minneapolis: University of Minnesota Press, 2013).

²⁸ Sheenagh Pietrobruno, "Medianatures," in *Macmillan Interdisciplinary Handbooks: Gender. Vol. Ii*, ed. Iris van der Tuin (Farmington Hills, MI: Gale Cengage Learning, 2016).

²⁹ Parikka, *What Is Media Archaeology?*

to our own scholarly practices and legacies, informed often by an affirmative ethics of the transformative encounter³⁰

The takeaway from this quote is, for this paper, a focus on two areas of inquiry: *feminist critiques of scholarly practices*, and *improper historiography*. These two areas provide us with excellent starting points for considering how to carry out feminist media archaeological research. Consequently, the paper begins by providing promptings on how a feminist critique of knowledge production in science can inform media archaeological studies. Next, the idea of improper historiography is unpacked, focusing on an approach of asking ‘other questions’.

A feminist critique of scholarly practices

Machines are never neutral. They are always already entangled in gendered, racialized and sexualized regimes of truth, saturated with (asymmetrical) power relations. The question of if, and how, “man-machine systems”³¹ reproduce such asymmetries is an important angle, perhaps too often neglected in media archaeological studies. A second, but highly related, question concerns media archaeology’s production of knowledge as such. What purchase has established feminist critiques of (claims of) ‘doing objective science’³² in media archaeology today?

[...] the question of our communication theories, through which we understand media cultures and its design practices, has to do with where we start – which materialities we include, which histories and archaeologies of matter *matter*, and how we can stay sensitive to the various contexts – scientific, technological, artistic, social, economic, including labour, and natural/ecological – through which we *do* media, art and communication studies³³

Feminist critiques of science have argued that intersections of, for example, gender, race, sexuality and class, are fundamental in structuring power, rights and obligations today, as well as historically. By explicating relations between researcher and object of study, as well as between researcher, object of study and world (in material and discursive senses), this paper seeks to develop the ambition to ‘stay sensitive to [...] various contexts’ as expressed in the quote above. The, now classic, cyborg theory of Donna Haraway³⁴ stipulates some important starting points. Haraway clearly opposes essentialism (the idea that there is a natural body) and proclaims a ‘monstrous’ fusion of animals, humans and machines. The cyborg figuration problematizes borders between semiotic and material aspects of the body (for example gender/sex), pointing to untenable clear separations between bio-machinic materiality and sociocultural dimensions. Owing legacy to Haraway, we thereby

³⁰ Cecilia Åsberg, Kathrin Thiele, and Iris van der Tuin, "Speculative before the Turn: Reintroducing Feminist Materialist Performativity," *Cultural Studies Review* 21, no. 2 (2015).

³¹ Cynthia Cockburn and Ruza Fürst-Dilic, eds., *Bringing Technology Home: Gender and Technology in a Changing Europe* (Milton Keynes: Open University Press, 1994).

³² Sandra Harding, *The Science Question in Feminism* (New York: Cornell University Press., 1986).

³³ Parikka, *What Is Media Archaeology?*, 164.

³⁴ Donna J. Haraway, "The Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Later Twentieth Century," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Association Books, 1985).

suggest that feminist media archaeology can be considered as post-constructionist³⁵. As such, it would insist, as Lykke says, on “constructedness and objectivity at one and the same time, and on the linkage between epistemology, ontology, and ethics”³⁶. Building on Barad, who, in turn, builds on Bohr, Lykke advocates for the conceptualization of our objects of study as ‘phenomena’:

The phenomenon is constructed, because, according to Barad (and Bohr), we can never produce objective knowledge about the world without setting up an experimental apparatus, which through its material-discursive design (technology, concepts etc.) produces a certain type of result (e.g. that light appears as waves). Within the frame created by the research design, however, it is possible at the same time to call forward an objective result, understood as a result that can be reproduced and repeated by other observers using the same research design (a certain experimental apparatus will always make light appear in wave form, while a certain other experimental apparatus will always make it appear in particle form).³⁷

This argument resonates with the common focus on media-specificity in media archaeological enquiries. That is, media technologies have certain material facticities and specific operations (dynamic processes that hides/rests under, often unspectacular, surfaces), that produce a certain way of knowing. However, post-constructionism sees ontology, epistemology and *ethics* as inseparable. Again, quoting Lykke:

The aim is to suggest a process of 'thawing' - in a retrospective move to transform a 'frozen' and reified 'object' of research into a subjective-objective, discursive-material, organic-technological, human-nonhuman, factional, macro-micro-social process, that is, a process with great relevance for Feminist Studies and its radical problematization of seemingly self-evident and given power structures.³⁸

This perspective of mutual transformation, considers then, not only *media* specificity, but also other flows of facticity (and construction), and how these jointly (re-)produce power asymmetries – an ethically informed stance. Moreover, a feminist post-constructionist approach to media archaeology, will also consider the very situatedness of knowledge production. In the words of Donna Haraway, we are always “in the belly of the monster”³⁹, meaning that we should be careful not to perform ‘god-tricks’ and (pretend to be able to) detach ourselves from the situation of research. A related argument is put forward by Kittler who proposes that media can only be described and analyzed through the use of other media⁴⁰, which in turn suggests that it is problematic to uphold a critical distance to the very technologies that are being placed into question. To us, this emphasizes how we, as researchers, have an ethical responsibility, or accountability, to consider widely both the situatedness as well as the consequences that our research (and objects of

³⁵ Nina Lykke, "The Timeliness of Post-Constructionism," *NORA - Nordic Journal of Feminist and Gender Research* 18, no. 2 (2010).

³⁶ *Ibid.*, 134.

³⁷ *Feminist Studies. A Guide to Intersectional Theory, Methodology and Writing* (London: Routledge, 2010), 141.

³⁸ *Ibid.*, 154.

³⁹ Donna J. Haraway, "Situated Knowledges. The Science Question in Feminism and the Privilege of Partial Perspective.," *Feminist Studies* 14, no. 5 (1988): 581.

⁴⁰ Friedrich Kittler, "Technologies of Writing/Rewriting Technology," *New Literary History* 27, no. 4 (1996).

research) could have in other(s) contexts, and in the long run. This includes a consideration of intersectional logics, where power asymmetries are upheld, (re)formed, and negotiated, through an interaction between unifying signifiers such as class, race, sexuality, functionality, ethnicity, mother tongue, class and so on. A feminist media archaeology would consequently not stop its research pursuit at material operations, but keep asking other questions⁴¹ - something we will address in more detail through the idea of improper historiography.

Improper historiography

The notion of improper historiography includes both addressing improper *objects* of research and *doing* historiography improperly. In the first case, media archaeology already retains a strong interest in mistakes, sidetracks, and obscured deviations. Nevertheless, an orientation towards 'queer failures'⁴² may provide additional food for thought. Halberstam uses the notion of queer failures to question norms of success, but, importantly, not only in terms of market success or in relation to capitalism⁴³. Unearthing and reading forgotten media technologies in ways that highlight a questioning of other (prevailing) norms of success, such as the ubiquity of neoliberal individualism, techno-solutionism, selective uniformism, or power asymmetries based on gender, sexuality, race, or corporeal variations, opens up to a different kind of media archaeology, which has a potential to expand the range of media-specific epistemologies that are given attention.

In terms of *doing* historiography improperly, the logic is similar. By exposing ourselves to a greater variety of theoretical lenses, our media archaeological readings will be able to write a more informed historiography of media and cultural techniques. In a paper examining the mutual adaptation of human and machine, Ellis poses two possible questions for media archaeological analysis: "Faced with an unfamiliar machine, do we ask "how was it used?" or "what can it do?" Very different archaeologies flow from these two questions."⁴⁴ To some degree, these two questions reflect the division between the Anglo-American and the German approach to media archaeology⁴⁵. For a feminist approach to media archaeology, this paper will argue that the most important additional question to ask is: "who benefitted (and, potentially, continues to benefit) from this machine?"⁴⁶ *Cui bono?* That is, what recurring topoi, tropes, specific epistemologies, and subsequently, power asymmetries, can be mapped out with a certain media technology, and its combination of discursive-material operations, as a starting point? This question can be further divided into fruitful sub-questions: "who is winning and who is losing?", "who

⁴¹ Matsuda; Kimberlé Crenshaw, "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color," in *Critical Race Theory. The Key Writings That Formed the Movement*, ed. Kimberlé Crenshaw, et al. (New York: The New Press, 1995).

⁴² Halberstam.

⁴³ Jussi Parikka, "Afterword: Cultural Techniques and Media Studies," *Theory, Culture & Society* 30, no. 6 (2013).

⁴⁴ John Ellis, "Between Human and Machine: The Operating System," *Journal of Contemporary Archaeology* 2, no. 1 (2015): S24.

⁴⁵ Erkki Huhtamo and Jussi Parikka, "Introduction: An Archaeology of Media Archaeology" in *Media Archaeology: Approaches, Applications, and Implications*, ed. Erkki Huhtamo and Jussi Parikka (Berkeley, CA: University of California Press, 2011).

⁴⁶ Susan Leigh Star, "Power, Technology and the Phenomenology of Conventions: On Being Allergic to Onions," *The Sociological Review* 38, no. S1 (1990).

made the rules to this game?”, and “what is the story that we tell the losers to get them to want to continue playing?”⁴⁷. This paper will take these *other* questions as headings for exploring new lines of inquiry for feminist media archaeology.

Who is winning and who is losing?

In a poignant critique of the mediumcentricity of media archaeology, Caroline Bassett directs light towards the historical distribution of *expertise* across both bodies and machines⁴⁸. In an historically acknowledging way, Bassett argues that we need to return to, and reintroduce, theories and theorists who question how certain objects of study are constructed as (allegedly) apolitical or gender-neutral. Challenging given ascriptions, of for example expertise, is a critical part of this approach:

[...] technologies are empathically marked by their histories, which is to say that a series of processes carry – in bodies and in code, in hardware and in software, in machine archives and social memory – various kinds of legacies and are conditioned by them (ascription labels, but does not determine what it calls expert).⁴⁹

Importantly however, Bassett reversely also argues for the retaining of medium-specificity in techno-feminist studies. Without an ambition to reveal the increasingly ubiquitous and obscured material operations of media technologies (and the power asymmetries literally built into them), research runs a risk of relying too much on ‘superficial’ accounts of participation, interactivity and identity. As such, a feminist media archaeology can still rely on medium-specificity, but must also acknowledge how medium-specificity is both produced through, and (re-)produces, structures of power. As researchers, we must recognize not only the materiality of the specific medium, but also the materiality of a reality at large. As an example, Cynthia Cockburn, in her article on the material of male power⁵⁰, shows how specific technologies are intrinsically entangled with a range of materialities (corporeal, socio-political, economical, ecological) that, jointly, produce particular situated effects. This opens up to an acknowledgment of not only medium-specificity, but a range of (mutual) specificities. As a case in point, we may consider ‘corporeal specificity’:

The person always faces the material facts of her body and its relation to the environment. Her bodily organs have certain feeling capacities and function in determinate ways; her size, age, health and training make her capable of strength and movement in relation to her environment in specific ways. Her skin has a particular color, her face determinate features, her hair particular color and texture, each with their own aesthetic properties. Her specific body lives in a specific context – crowded by other people, anchored to the earth by gravity, surrounded by buildings and streets with a unique history, hearing particular

⁴⁷ Lani Guinier and Gerald Torres, *The Miner's Canary: Enlisting Race, Resisting Power, Transforming Democracy* (Cambridge, MA: Harvard University Press, 2003).

⁴⁸ Caroline Bassett, "Feminism, Expertise and the Computational Turn," in *Renewing Feminisms: Radical Narratives, Fantasies and Futures in Media Studies*, ed. Helen Thornham and Elke Weissmann (London: I.B. Tauris, 2013).

⁴⁹ *Ibid.*, 211.

⁵⁰ Cynthia Cockburn, "The Material of Male Power," *Feminist Review* 9 (1981).

languages, having food and shelter available, or not, as a result of culturally specific social processes that make specific requirements on her to access them. All these concrete material relations of a person's bodily existence and her physical and social environment constitute her *facticity*⁵¹

In relation to this facticity, a situation is also complemented with certain individual and situated agency, intentions and ambitions. A combined analysis of the situation, including facticity, situated and contingent agency, together with a critical reading of medium-specificity, can open up to layered readings of the negotiations of intentionality between humans and, increasingly agential, machines. This joint analysis can provide us with insights relating to entangled techno-existential issues – such as a better understanding of the humanlike capacities of machines as well as the machinelike capacities of humans⁵², or how subjectivity and objectivity is negotiated based on the reciprocal specificities of the overall situation⁵³.

When addressing the question of 'who is winning and who is losing' another productive thinking technology is the concept of 'forgetfulness'. An oblivious tactic like forgetting may at first seem to go against the motivations of media archaeology (i.e. to avoid a complete erosion of technology and instead excavate and bring to light forgotten technologies). Nevertheless, feminist media archaeology can work with forgetting in a more practical sense – by highlighting both how specific media technologies have implemented modes of forgetting, as well as scrutinizing and questioning which media technologies, and media technological histories, that have been given precedence in analyses of the obscured, forgotten and side-tracked (which can expose even new layers of past media ecologies), and why. That is, the problematizing of who designed technology, and for whom technology was designed, is an analytical backdrop that can diffract our view of media specificity. In other words, asking how power asymmetries travel over the design and specificity of media technologies and cultural techniques. As an example, we may consider a feminist history of computers, which can take the form of a historical account of pioneering women in computing⁵⁴. It can also tell a story of (already famous) men, but attempting to "make visible those parts of a history that are often neglected, erased, or forgotten, and an effort to question the assumption that the technical and the sexual are so easily divided."⁵⁵ But, it can also take a start by looking at diversity gaps in *design* as a practice. While there is a greater awareness to design for variety today (although the commonality of inclusive design, and the general diversity in designers, can, very much, be questioned even today), we should not assume that this has been the case historically. Throughout history, media technologies have often been designed with an intended use, and perhaps even explicit user persona, in mind (in some cases based on some kind of behavioral research). While unintended uses are inevitable, the fact that design could be biased by notions of use and users (e.g. as white, educated, industrialized,

⁵¹ Iris Marion Young, *On Female Body Experience: Throwing Like a Girl and Other Essays* (Oxford: Oxford University Press, 2005), 16.

⁵² Lucy Suchman, *Human-Machine Reconfigurations* (New York: Cambridge University Press, 2007).

⁵³ "Subject Objects," *Feminist Theory* 12, no. 2 (2011); Ulf Mellström, "Patriarchal Machines and Masculine Embodiment" *Science, Technology, & Human Values* 27, no. 4 (2002).

⁵⁴ "The Ada Project," Carnegie Mellon University.

⁵⁵ Jacob Gaboury to Rhizome, Feb 19, 2013, <http://rhizome.org/editorial/2013/feb/19/queer-computing-1/>.

rich, democratic subjects ⁵⁶) present in design processes, potentially means that technologies could have, more or less, hidden layers of discrimination *built in to them*. This calls for us, as feminist media archaeologists, to be alert and try to reveal such built-in power differentials, by analyzing (computational) media more deeply than just as detached tools for pure communication. This relationship between design and media archaeology will be discussed in more detail next.

Who made the rules to this game?

What are the rules, who made them and (how) have they been circumvented are all questions that relate to the *design* of media technologies. We can ask ourselves if technology is not, as Banks puts it: “politics frozen in silicon”⁵⁷? Gender, mother tongue, nationality, ethnicity, sexuality, functionality, class, are all onto-epistemo-ethical sorting mechanisms that leak into, and out of, technological design, use and discourse. As such, ‘rules’ and ‘design’ are related in so much that design can be seen as a process of rule-making, or chain of ontic operations, defining, supporting and delimiting design concepts, intentions, imagined users, and supported agencies. There are, of course, already many conceptual overlaps between feminist design and media archaeology: their close relationship to designs and technologies in themselves; the desire to explicate various relationships between users and machines; the importance of a hands-on approach; and the openness to play around with critical designs, forgotten development paths and genealogical traces. As such, this paper will take stock in examples of *structural critiques of design*⁵⁸ and *design criticism*⁵⁹, as these are explicitly concerned with a critical understanding of design in the borderland between the arts and technical development, and between infrastructure and individual user.

Leslie Weisman effectively points out that architecture has discrimination built into it⁶⁰. This argument should be put to the test in the face of software and hardware architecture as well, historical or contemporary. A design-oriented media archaeology may explore how media technologies have historically formalized, surveyed, and policed subject positions. Media technologies, as specifically instantiated machines, are many times designed as integral parts of societal systems intended to govern, and make visible more and more information about, its citizens. The ‘political firmware’ of technologies is often hidden through a choice of words that points to an inevitable technological development. This enables technologies to be constructed as a societal and progressive advancement which is time-bound, without any capitalist, governmental or educational intervention and interest. The specificities of machines are often disconnected from material production conditions. That is, technologies exist not only in an historical “then” but also in a geopolitical “there”. Looking at a history of ambitions to construct a

⁵⁶ Joseph Henrich, Steven J. Heine, and Ara Norenzayan, “The Weirdest People in the World?,” *Behavioral and Brain Sciences* 33, no. 2-3 (2010).

⁵⁷ David Banks to Cyborgology, May 4, 2013, <http://thesocietypages.org/cyborgology/2013/05/04/the-politics-of-communications-technology/>.

⁵⁸ Shaowen Bardzell and Elizabeth F. Churchill, “Feminism and Hci: New Perspectives,” *Interacting with Computers* 23, no. 5 (2011).

⁵⁹ Jeffrey Bardzell and Shaowen Bardzell, *Humanistic Hci* (San Rafael, CA: Morgan & Claypool, 2015).

⁶⁰ Leslie Kanes Weisman, *Discrimination by Design: A Feminist Critique of the Man-Made Environment* (Chicago: University of Illinois Press, 1994).

mediatized (or digital) citizen, and for what purposes⁶¹, can, again, provide us with a new cultural context for specific media capacities.

Susan Leigh Star effectively highlights this with the, amusingly surprising, example of eating at McDonalds and being allergic to onions⁶². She sees this as an intersection where standardized technology, organizations and individuals meet. At this intersection, something, or someone, is always left behind—the non-user, the “Other”, the monstrous, which always seems to be slipping away in the transcodings that take place. Star argues that being ‘othered’ here should not be seen as nonconformity, it is rather a form of heterogeneity. This idea of heterogeneity is further developed as an analytical category, highlighting positions of multiple membership and marginality. Within the realm of human-machine-intermingling the interesting question to begin with, says Star, is *cui bono* (who benefits). A (seemingly) stabilized network is not stable for everyone, but only for those who form, maintain, and can use it (for their purposes). For those who are not standard(ized) – those who do not fit in the network – a material-discursive misfit occurs. This in-between position can be a ‘high tension zone’ while at the same time also an invisible place. Since it is a ‘zero point between dichotomies or between great divides: male/female, society/technology, either or’⁶³ maintaining it comes with a cost. Susan Leigh Star writes:

Stabilized networks seem to insist on annihilating our personal experience, and there is suffering. One source of the suffering is denial of the co-causality of multiple selves and standards, when claims are made that the standardized network is the only reality that there is.⁶⁴

This taps into the pain of fragmented identities, or in Star’s words: multiple membership and multiple marginalities, but also the material effects on the body and in the worlds becoming. Their world just can not handle anything out of the ordinary, just as McDonalds just can not deliver hamburgers without onions as quickly as those *with* onions. Infrastructures matter, and they are layered.

To connect this argument to media archaeology, we proceed in the vein of Bowker and Star, and how they illustrate how historical codification and categorization in classification systems comes with ontological consequences⁶⁵. We would argue that a similar approach to (historical) media technologies can be found by turning to Siegert’s notion of cultural techniques⁶⁶. Siegert conceives of cultural techniques as ‘operative chains’ that precede the media-theoretical concepts they generate. They are also agential, but act differently in (relation to) different cultures, which is because they are oscillating between material and symbolic operations (which may differ in cultural terms). As such, cultural techniques produce (non-anthropocentric) distinctions through, what Siegert refers to as, ontic operations (e.g. between real/virtual, inside/outside, human/animal, but

⁶¹ Lina Rahm and Anders Fejes, "Popular Education and the Digital Citizen: A Genealogical Analysis," *European Journal for Research on the Education and Learning of Adults* 8, no. 1 (2017).

⁶² Star.

⁶³ *Ibid.*, 47.

⁶⁴ *Ibid.*, 48.

⁶⁵ Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, MA: MIT Press, 2000).

⁶⁶ Siegert; Liam Cole Young, "Cultural Techniques and Logistical Media: Tuning German and Anglo-American Media Studies," *M/C Journal* 18, no. 2 (2015).

also *other* distinctions). This in turn, means that cultural techniques, as epistemic interfaces between the real and the symbolic, have the capacity to both stabilize, as well as destabilize, culture. Studying cultural techniques through a feminist lens, particularly with a focus on corporeal fixations and power differentials, seems like a promising way forward for feminist media archaeology. What power asymmetries, engendered through chains of ontic operations, are repeated and distributed through various (combinations of) cultural techniques?

In relation to design, structured rules, and rule-making, a media archaeology of *cheating* intervenes effectively by, for example, highlighting historical counter-media – technologies that sought to circumvent the rules and protocols being built in to other systems or media. Leaning on game theorist David Surman and the idea of going ‘behind the screen’ to consider technologies through their limits, Ann Light states that cheating

[...] starts to reveal how rules (1) constitute what can and cannot happen in its world and (2) keep the actions of the players manageable within the resources of the machine. Surman’s ‘behind the screen’ is a journey that breaks the conformity of playing by the rules and gives the cheater insight as to the rule-based nature of all interaction with computers⁶⁷

By researching historical technologies as (rule-based) interfaces between human and world, between materiality and sociability, between the political and the technical, between designers and users, we can begin to express humanistically grounded alternatives to the recurring, and techno-solutionist, norms of ‘efficiency’, ‘speed’, ‘success’ and ‘smartness’, and balance them with more complex, cultural, and indeed feminist, values.

What is the story that we tell the losers to get them to want to continue playing?

On one hand, technologies, today more than ever, are surrounded by narratives of relentless updating. They also constitute a material-cultural layer of reality, where opting out is not a viable alternative for most people. Our technological future is being limited (and territorialized) by both commercials and diegetic prototypes presented in popular culture⁶⁸. Correspondingly, our desires are being streamlined, and many times cut short, by being regulated to the next, ‘soon available’, version of a particular brand of smartphone, gaming console, TV or computer. In this interpretation of the future, ‘losers’ are, more or less, forced to keep playing because opting out, if it even exists as an option, comes with perceived costs and losses.

On the other hand, feminism, design, and media archaeology overlap in their more progressive relation(s) to imagined futures and science fiction. Speculative feminism⁶⁹,

⁶⁷ Ann Light, "Hci as Heterodoxy: Technologies of Identity and the Queering of Interaction with Computers," *Interacting with Computers* 23, no. 5 (2011): 435.

⁶⁸ David Kirby, "The Future Is Now: Diegetic Prototypes and the Role of Popular Films in Generating Real-World Technological Development," *Social Studies of Science* 40, no. 1 (2010).

⁶⁹ Donna J. Haraway, "Sf: Science Fiction, Speculative Fabulation, String Figures, So Far," *ada - a journal of gender, new media & technology*, no. 3 (2013).

design fiction⁷⁰, and imaginary media⁷¹ are all concerned with the relation between the fantastic and the realized. As Benjamin Robertson and Lori Emerson points out, media archaeology is prone to raise the (non-rhetorical) question of how it could have been otherwise⁷². Feminist speculative media archeology thus holds a potential not only to note that it *could* be different but also to further explore *how*. In this approach to the future, there is more room to investigate alternative futures, that question the current state of things. ‘Losers’ (both in human and machinic terms) can thereby be elevated and given hope, in the face of incessant control, distribution of individual responsibility, and designs for those who win. This can be done both in more utopian or dystopian (in lack of better terms) ways. For example, afrofuturist accounts have dealt with the general relationship that African Americans have historically had with the fields of science and technology, where in the shady past of these fields, the African-American body has been treated rather violently, with black female bodies made especially alien or othered⁷³. Adopting an alien, cyborg, or robot alter ego is one way to reclaim this relationship with science and technology, which can also act as an armor to protect against the limiting cultural expectations of how African Americans “should be”. Critique can also take a more dystopian perspective, presenting extrapolated *undesired* futures, illustrating how an over-reliance on certain norms, cultural expressions, and technological developments can lead to disasters⁷⁴.

So, instead of becoming trapped in an over-determined situation where all media futures have already been imagined, and all history is always already part of a given and known development, we should open up to exploring specific media technologies not only as media’s dead ends and false starts as such, but also as a source for plurality and heterodoxy of yet unrealized uses (e.g. “what *could* it be used for?” and “what possible futures emerge from this specific technology?”). This resonates with the joint media archaeological and feminist ambition to ‘be hard on heroes’ and opens up to a plurality of voices and potential futures, emerging from the margins of normative success. While feminist critiques of speculative futures are already a vital are of research, pushing the boundaries of speculative fiction (analysis) further, design fiction and media archaeology are arguably lagging behind, leaving much room for new groundbreaking work. Kluitenberg’s notion of emancipatory imaginary media would be a good starting point for such expanded endeavors, particularly in combination with ideas from critical and speculative design⁷⁵.

⁷⁰ Linda Paxling, "Design Fiction as Norm-Critical Practice," in *Interactivity, Game Creation, Design, Learning, and Innovation*, ed. A. Brooks, E. Brooks, and N. Vidakis, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (Berlin: Springer, 2018).

⁷¹ Eric Kluitenberg, "On the Archaeology of Imaginary Media.," in *Media Archaeology: Approaches, Applications, and Implications*, ed. Erkki Huhtamo and Jussi Parikka (Berkeley, CA: University of California Press, 2011).

⁷² Benjamin J. Robertson and Lori Emerson, "Media Archaeology and Science Fiction," *Science Fiction Studies* 44, no. 1 (2017).

⁷³ Ytasha L. Womack, *Afrofuturism: The World of Black Sci-Fi and Fantasy Culture* (Chicago: Chicago Review Press, 2013).

⁷⁴ Ben Kirman et al., "Chi and the Future Robot Enslavement of Humankind; a Retrospective," in *CHI 2013* (Paris, France: ACM, 2013).

⁷⁵ Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction and Social Dreaming* (Cambridge, MA: MIT Press, 2013); Anne Galloway, "Towards Fantastic Ethnography and Speculative Design," *ethnography matters* (2013), <http://ethnographymatters.net/2013/09/17/towards-fantastic-ethnography-and->

Conclusion

In an attempt to outline a feminist media archaeology this paper has highlighted similarities but also identified gaps where both media archeological concepts and approaches, as well as feminist ones, could be expanded when combined. Our ambition has been to identify conceptual overlaps and argue that there are too few examples of explicitly *feminist* media archaeology. A feminist media archaeology also seeks to reverse-engineer our current situation, but takes its start in feminist critiques of power differentials (based in, for example, intersectionality). Media technologies can be seen as communication made durable, but duration also entails repetition (of e.g. power differentials). As such, a particularly important contribution of this paper is the stratagem to keep on asking 'other' questions. Who is winning and who is losing? Who made the rules? And what story do we tell the losers to get them to want to continue playing? These questions provide, of course, only initial starting points that contextualize technologies, acknowledging that they do not appear out of thin air, or exist in a detached vacuum. Again, posing other questions to technology becomes extremely important – questions that can reveal media technologies as artefacts (with physical, visual, and functional components), as knowledge (with normative epistemic components), as parts of design processes (with in/explicit, potentially, power-asymmetrical design choices and consequences), and as parts of human volition (including recurring im/possible desires⁷⁶ and seductive powers). On a final note, for future endeavors in feminist media archaeology, we would like to see feminist methods and media archaeological methods interrogate one another more thoroughly. Instead of only supplementing media archaeology with the ethics of feminist technoscience studies (which was arguably the main approach of this paper), novel work can also apply media archaeology more palpably to re-imagine what feminist methods can do.

speculative-design/; Jeffrey Bardzell and Shaowen Bardzell, "What Is "Critical" About Critical Design?," in *CHI 2013* (Paris, France: ACM, 2013).

⁷⁶ Jørgen Skågeby, "Im/Possible Desires: Media Temporalities and (Post)Human-Technology Relationships," *Confero: Essays on Education, Philosophy and Politics* 4, no. 2 (2016).

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