

<http://artnodes.uoc.edu>

ARTICLE

NODE: "THE MATTER WITH MEDIA"

New Materialism of Dust*

Jussi Parikka

Reader at the Winchester School of Art (University of Southampton)

Adjunct Professor ("Docent") at University of Turku (Finland)

Submission date: July, 2012

Accepted in: September, 2012

Published in: November, 2012

Abstract

This text considers the materiality of dust. It maps a transversal route of considering dust, from the processes of polishing iPad covers in Chinese factories to a wider theoretical argument for a media materiality that starts from rocks and chemicals. In short, this kind of new materialism is interested in the various times, durations, entwinements and distributions of a whole range of agencies, several of them non-human. Hence, we are also forced to think about the contexts of new materialism in a slightly more fluid, novel way than just assuming that specificity concerning the technological and the scientific underpinnings of media culture are automatically material. Indeed, materiality is not just about machines; nor is it just solids, and things, or even objects. Materiality leaks in many directions, as electronic waste demonstrates, or the effects of electromagnetic pollution. It is transformational, ecological, and multiscalar.

Keywords

new materialism, dust, media ecology, media archaeology, electronic waste, Negarestani, design

*La nueva materialidad del polvo***Resumen**

Este texto aborda la materialidad del polvo, trazando una ruta transversal que va de los procesos de encerado de las fundas de iPad en las fábricas chinas a un argumento teórico más amplio que examina la materialidad de los medios, de las rocas a las sustancias químicas. En pocas palabras, este nuevo materialismo se interesa por la diversidad de tiempos, duraciones, entre-

* An earlier version of this essay was published in C. Wiedemann; S. Zehle (2012) (eds), *Depletion Design. A Glossary of Network Ecologies*, Amsterdam: INC.

lazamientos y distribuciones de una amplia gama de agencias, algunas de ellas no humanas. De ahí que nos veamos obligados a reflexionar sobre los contextos del nuevo materialismo de una forma novedosa, ligeramente más fluida que simplemente asumiendo que la especificidad relativa a las bases tecnológicas y científicas de la cultura de los medios es automáticamente material. En efecto, la materialidad no concierne solo a las máquinas, ni tampoco afecta únicamente a los sólidos o a las cosas, ni tan siquiera a los objetos. La materialidad se filtra en múltiples direcciones, tal como demuestran los residuos electrónicos o los efectos de la contaminación electromagnética. Es transformacional, ecológica y multiescalar.

Palabras clave

nuevo materialismo, polvo, ecología de los medios, arqueología de los medios, residuos electrónicos, Negarestani, diseño

Insects wings might beat anywhere between 100 to 1000 beats per second; dead zooplankton sedimented for millions of years forms the backbone of the global economy; most things on the solar radiation spectrum remain unseen to us but perhaps registered on the body anyway, somehow; think of the aesthetics of magnetic storms in the upper atmosphere and their weird frequencies – worked into an aesthetic piece by Semiconductor's Ruth Jarman and Joe Gerhardt in 20 Hz (2011). A *lot* happens before humans or cultural theorists arrive at the scene. After that, they might start talking and writing about representation, meaning, signifying, practices, discourses and ideology. But even before that, a lot has happened.

Or instead of the starting examples, take dust – the thing that covers a lot of the globe (deserts) as well as a lot of our obsolescent media. In the words of Reza Negarestani, in *Cyclonopedia* and the extensive (political) philosophy of dust offered:

Each particle of dust carries with it a unique vision of matter, movement, collectivity, interaction, affect, differentiation, composition and infinite darkness — a crystallized data-base or a plot ready to combine and react, to be narrated on and through something. There is no line of narration more concrete than a stream of dust particles.

Dust already counts, as does a litany (see Ian Bogost's *Alien Phenomenology* concerning lists and litanies) of other non-human things/processes: technologies, chemicals, rabbits, chairs, airplanes, LCD displays, ionization, geological formations, insects, shoes, valves, density of surfaces, and skin. Instead of a list, which we only could fake to be exhaustive, let's just state that matter has its intensities, its affordances and tendencies that are not just passive, waiting for the activity of form(ing) by the human. A lot of the so-called new materialist debate has revolved around trying to figure a way out of the (post-)Kantian world where we do not really have access to such things as dust. We are only able to know about them, mediated through the assumed a priori categories (temporality and spatiality, specific to the transcendental subject).

Non-humans and the world are approached through a variety of epistemological measures. This relates to the question of how do we actually know anything of the worlds outside us, and be sure about that knowledge, of the world. The same has applied to a lot of academic theory too, where ontology has not been on top of the agenda for instance in a lot of cultural and media studies (despite such pioneers of rethinking materialism as Lawrence Grossberg). Discussing matters ontological, real and ontological has had a bit of a rough time in the midst of various epistemological enterprises about what is knowable, what is not, what is real, what is hallucinated and imagined.

The past years have seen an intensifying debate that argues that we need to think more broadly than the question of categories of knowledge and actually account for ontology and ontogenesis. In other words, new materialism tries to steer clear of the hylomorphic fallacy – of a division between us (humans, knowledge, meanings, form) and them (the real world of objects, things, materialities, often assumed passive and meaningless in the signifying sense). The French philosopher Gilbert Simondon was adamantly argues that in order for us to grasp the materiality of things and technology, we need to rethink and challenge the assumption that form is external to matter. Perhaps there is a *forming* inside matter already, an intensity, or as Gilles Deleuze suggested, an element of the virtual? For Simondon, the name for this mattering was individuation – that matter individuates in its milieu. Often in contemporary cultural theory, this is referred to through a broader idea of “new materialism” – not just the materialism as we used to think of it, as mechanical, or in political economy versions as historical or dialectic materialism, but also the materialism of non-humans – whether inside us (for instance bacteria or genes) or outside us (ecology, media technologies, and well, bacteria and genes).

Quoting Negarestani before mentioning the more established philosophers from which new materialism stems --- Simondon, Brian Massumi, Deleuze, Bruno Latour, Rosi Braidotti, Elizabeth Grosz and others, for instance in the object-oriented ontology brand of

thought – is emblematic of the embracing of the speculative nature of the world. It accounts for the insistence that objects and non-human events speculate too, even before the philosopher enters the scene. Speculation is not so much a cognitive attitude but a mode of engaging in a situation, in a milieu. Also the particle of dust that we started with speculates through its “unique vision of matter, movement, collectivity, interaction, affect, differentiation, composition and infinite darkness”. Speculation engages (in) the event that unfolds. Insects speculate, so do bacteria, and non-organic formations too, as long as we credit them with a certain duration, characteristics and a milieu. Speculative realism might often, in its object-oriented forms, avoid this talk of events, but it is still worthwhile to bear in mind their contribution to the new materialist discourse. Speculation, in speculative realism, is something that also wants to avoid the linguistic understanding of speculation, but claims that the world, already and outside the human, is speculative, contingent and prone to change. Just like the speculative human thinker or designer, speculative matter is not always sure and determined where it is going and what will happen next. Speculation forces us to question causality, or at least to track it to its bitter complex middle. Speculation can be said to be pragmatic too, in the manner Brian Massumi coins it together with pragmatism and the relation to radical empiricism. Here, speculation addresses the potentiality and change inherent in the world, combined together with pragmatism as an attitude towards the processes of composition.

Yet, speaking of new materialism we need to ask whether the focus on non-humans is sufficient, or whether we need a further level of specificity? In short, if new materialism is interested in the qualities of objects, things, processes and the wider vibrancy of matter (as Jane Bennett coins it), is it sufficient to just brand everything as objects or do we need to keep the agenda much more open to a variety of encounters in thought and (creative) practice, including design? In such speculative design practices as described in *Design Noir*, by Anthony Dunne and Fiona Raby, objects become only one passage point in understanding the wider topology, spectral geography, of electromagnetic media. This design perspective forces us to link epistemological considerations (visualisations and computer simulations that make the electromagnetic spectrum understandable to the human senses), design practices (how do you engage with such real but invisible worlds) and speculative ontologies (matter that is effective and affective as a mediatic milieu, and yet escapes into the non-human frequencies and speeds).

Indeed, the already very briefly mentioned posse of theorists have elaborated very different ways of engaging with activity of matter; that matter does, is and has a range of effects, causations and reactions – not all registered at all in the sensory systems of humans, and often even less in our cognitive coordinates or epistemological apparatus (which themselves have to be related to histories of technical media). Dust, electromagnetic phenomena, and other non-humans engage

in intensive differentiation that demands a different cultural studies vocabulary than the one we inherited from the language-biased deconstructionism or representation-analysis. This has ontological implications, as the term “flat ontology” coined by Manuel Delanda and Levi Bryant has demonstrated – we should not give privilege to one particular (generic) type of being. If instead of assuming a fixed set of being, an ontological starting point, we approach it as ontogenesis, we might be able to think of it as an attitude of orientation; a speculative pragmatics even, in the manner that is interested in mapping out future potentials of the world – things and as real relations.

In the midst of theoretical debates and traditions concerning new materialism, one particular approach is to emphasize the differing materialisms of “mediatic” phenomena. This does not mean we need to reduce the richness of the theoretical approaches concerned with “media” or “technology.” Instead, a media-focused emphasis is one way to entangle ontological debates concerning new materialism with historical media approaches and practices that wish to engage actively, in an aesthetico-political way, with such intangible realities. Mixing philosophy with media theory offers an insight into why we are so interested in non-human bodies and objects, processes that escape direct and conscious human perception, intensity of matter of technological and biological kinds.

In short, this media-biased proposition goes something like this: New materialism is not only about intensities of bodies and their capacities such as voice or dance, of movement and relationality, of fleshiness, of ontological monism and alternative epistemologies of generative matter, and active meaning-making of objects themselves non-reducible to linguistic signification. Not wanting to dismiss any of those perspectives, I just want to remind of the specificity and agency in mediatic matter too. New materialism is already present in the way technical media transmits and processes “culture,” and engages in its own version of the continuum of nature-culture (to use Donna Haraway’s term) or in this case, media-natures.

Instead of philosophical traditions, we can read modern physics, engineering, and communications technology as mapping the terrain of new materialism: signal-processing, use of electromagnetic fields for communication, and the various non-human temporalities of vibrations and rhythmic of for instance, computing and networks areas as much based in non-solids as the conventional materialities that you can grasp with your hand. A slightly different kind of tool relation than with the hammer. Think of pregnancy dresses with thin silver threads to block out electromagnetic radiation. There is a whole other history of invention besides the one that we usually find in creative industries or media history context. In such an alternative, non-human history, the soil and rocks might act as storage media for the passing of time, electromagnetic waves transmit, and are accidentally picked up by natural antennas, our high-tech media relies on a long history of natural media, and that a range of materials exhibit

such capacities that we often attribute only to high-tech media – in the words of Paul DeMarinis: “semiconductor physics is unaccountably breeding in hidden places”.

Media history is one big “story” of experimenting with different materials from glass plates to chemicals, from selenium to coltan, from dilute sulphuric acid to shellac silk and guttapercha, to processes such as crystallization, ionization, and so forth. All of those could be approached through the non-hylomorphic idea of individuation that Simondon proposed. What is more, the materials have their after effects, nowadays most visible in the amount of e-waste our electronic culture leaves behind, which presents one further “materiality” for our investigation interested in tracking non-human dimensions of media culture.

As such, new materialism is perhaps, surprisingly, one such perspective that could make sense of a continuum between mediatic apparatuses as communication tools and materiality both as high tech and soon to be obsolescent waste. In short: Continua all the way down (and up again); soft to hard, hardware to signs. In software studies, the continuous relation from the symbol functions on higher levels of coding practices to voltage differences as a “lower hardware level” has been recognized: assembly language needs to be compiled, binary is what the computer “reads,” and yet such binaries take effect only through circuits; and if we really want to be hardcore, we just insist that in the end, it comes back to voltage differences. Such is the methodology of “descent” that Foucault introduced as genealogy, but that German media theory takes as a call to open up the machine physically and methodologically to its physics. It has led into a range of artistic methodologies too, from computer forensics to data carving (as performed by Martin Howse, Danja Vasiliev and Gordan Savičić), to network algorhythmics (Shintaro Miyazaki). In other words, recognizing the way abstraction works in technical media from voltages and components to the more symbolic levels allows us to track back, as well, from the world of meanings and symbols--but also a-signification--to the level of dirty matter. This material descent can also take us to consider the theme of material depletion, and open up the whole notion of medium into its shifting constituent parts.

This is the stuff that can contribute to one particular possibility of “new” materialism: the perspective of minerals sedimented for millions of years before being mined by cheap labour in developing countries for use in computers and iPads. After that short use-period of some years, they become part of the materiality of e-waste leaking toxins into nature after river-dumping or incarceration, making them into toxic vapours that attach to the nervous systems of cheap labour in China, India, Ghana, etc. Delanda wrote of the thousand years of non-linear history as a proposition to engage with the long durations of rocks, minerals, biomatter and language. Now we can push that into a million, billion years of non-linear history almost in the way Negarestani suggests in his work of theory-fiction concerning petroleum, dust and

other material agencies. A new materialist archaeologist excavates how the *sedimented* participates in the contemporary biopolitical sphere. A geology of media technologies.

This new material biopolitics is embedded in a multitude of durations: A specific design solution concerning a screen or technological component has an effect on its becoming obsolescent sooner than “necessary” while the product itself is embedded in a capitalist discourse emphasizing newness as a key refrain and fetishistic value driving the purchase decisions. And, after being abandoned for another device, what is often called “recycling” is just waste-trade, wherein old electronic media is shipped, for instance, to India, to be dismantled with very rudimentary (and dangerous) processes that attach toxins to the lungs and nervous systems of the poor workers.

In short, this kind of new materialism is interested in the various times, durations, entwinements and distributions of a whole range of agencies, several of them non-human. For instance Grosz has pointed out the fruitfulness of this kind of an agenda for theory. This questioning should refuse preset answers, whether such would want to focus only on the materiality of the scientific context, or suggesting we are dealing only with objects. New materialism has a specific relation to a future, which also means a certain openness: materialism has to be invented continuously anew: a speculative pragmatism. It cannot just be discovered dormant, formulated in a philosophy book, or a theoretical doctrine; instead, speculative mapping turns to the world of non-humans in concrete ways and often aided by artistic practices; for instance in technological specificity or scientific contexts, a metaphysical category or even critique of linguistic turn. Hence, we are also forced to think of the contexts of new materialism in a slightly more fluid, novel way than just assuming that specificity concerning the technological and the scientific underpinnings of media culture are automatically material. Indeed, materiality is not just machines; nor is it just solids, and things, or even objects. Materiality leaks in many directions, as electronic waste demonstrates, or the effects of electromagnetic pollution. It is transformational, ecological, and multiscalar.

Reference:

- BENNETT, J. (2010). *Vibrant Matter: A Political Ecology of Things* Durham: Duke University Press.
- BRYANT, L., SRNICEK, N.; HARMAN, G., (eds.) (2011). *The Speculative Turn. Continental Materialism and Realism* Melbourne: re.press. <http://dx.doi.org/10.1353/sub.2011.0011>
- CUBITT, S., (2012). “Current Screens”. In: *Imagery in the 21st Century*, A:O. Grau, with T. Veigl. Cambridge, MA: The MIT Press, pp. 21-35.
- CUBITT, S.; THOMAS, P. (Forthcoming, 2013). “Introduction: The New Materialism in Media Art History” In: A: S. CUBITT and P. THOMAS

- (eds.). *Re:live: New Directions in Media Art History*, Cambridge, MA: The MIT Press.
- DELANDA, M. (2002). *Intensive Science and Virtual Philosophy*. New York: Continuum.
- DEMARINIS, P. (2010). *Buried in Noise*. (Eds.). I. BEIRER, S. HIMMELSBACH AND C. SEIFFARTH HEIDELBERG. Berlin: Kehrler.
- DUNNE, A.; RABY, F. (2001). *Design Noir: The Secret Life of Electronic Objects*. Basel, Boston, Berlin: Birkhauser.
- GROSZ, E. (2011). *Becoming Undone. Darwinian Reflections on Life, Politics, and Art* Durham and London: Duke University Press.
- INSTITUTE FOR ALGORHYTHMICS, www.algorhythmics.com/ [Accessed: 5 September 2012]
- KITTLER, F. A. (1997). "There is No Software," In: J. Johnston (ed.) *Literature, Media, Information Systems* Amsterdam: G_B Arts, pp. 147-55.
- MASSUMI, B. (2011). *Semblance and Event* Cambridge, MA: The MIT Press.
- NEGARESTANI, R., (2008). *Cyclonopedia. Complicity with Anonymous Materials* Melbourne: re.press.
- ROSSITER, N. (2009). "Translating the Indifference of Communication: Electronic Waste, Migrant Labour and the Informational Sovereignty of Logistics in China," *International Review of Information Ethics*, 11 (October 2009), pp. 36-44, <http://www.i-r-i-e.net/inhalt/011/0111-full.pdf>(accessed 18 September, 2011).

Recommended citation

PARIKKA, Jussi (2012). "New Materialism of Dust". In: Jamie Allen (coord.). "The Matter with the Media" [online node]. *Artnodes*. No. 12, pp. 83-88. UOC [Accessed: dd/mm/yy].
 <<http://artnodes.uoc.edu/ojs/index.php/artnodes/article/view/n12-parikka/n12-parikka-en>>
 DOI: <http://10.7238/artnodes.v0i12.1716>



This article is – unless indicated otherwise – covered by the Creative Commons Spain Attribution 3.0 licence. You may copy, distribute, transmit and adapt the work, provided you attribute it (authorship, journal name, publisher) in the manner specified by the author(s) or licensor(s). The full text of the licence can be consulted here: <http://creativecommons.org/licenses/by/3.0/es/deed.en>.

CV**Jussi Parikka**

Reader at the Winchester School of Art (University of Southampton)
 Adjunct Professor (“Docent”) at University of Turku (Finland)
j.parikka@soton.ac.uk

Winchester School of Art
 University of Southampton
 Park Avenue
 Winchester
 Hampshire
 SO23 8DL

Dr. Jussi Parikka writes about digital culture and media theory. He is Reader at the Winchester School of Art, University of Southampton, and Adjunct Professor (“Docent”) at University of Turku, Finland. His books have touched on the materiality of accidents and entanglements of biology and technology. These include *Digital Contagions* (2007), *Insect Media* (2010) and *What is Media Archaeology* (2012). Edited collections include *The Spam Book* (2009), *Media Archaeology* (2011), and *Medianatures* (2011). He recently edited a collection of the German media theorist Wolfgang Ernst’s writings, and that volume is forthcoming soon.