

Energize Festival 2015

Theme: The Value of WASTE

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What is waste?

What is the value of waste? Based on ideas concerning the lifecycle of materials it depends on where you are in this cycle: have you consumed material, then what remains is usually waste that has no value. But if the remains can function as raw materials for a product, then this same waste may turn out to be valuable. When you think in cycles like this, can you say that there is such a thing as waste at all? Or is 'waste' simply the stage in which materials are temporarily without value? And if so, who or what determines when something is waste?

Food

Of course we only eat the edible parts of fruits and vegetables. The rest is largely thrown away during the harvest. Waste, you might think, until this 'waste' ends up on a compost heap and becomes valuable compost to farmers and gardeners, or until it is pressed into bio-raw materials used for all kinds of purposes. Furthermore, of all fruit and vegetables produced for the Netherlands only a small part actually reaches the Netherlands: all crooked cucumbers and yellow tomatoes are picked out and shipped to markets in Eastern Europe or to developing countries. So these markets are full of our 'waste' you might say. Of all fruit and vegetables that do make it to our supermarkets a large part ends up in supermarket bins. Usually because the product did not sell in time or got damaged. This kind of 'waste' is a feast for the so-called 'dumpster diver'^[1], who quite often succeeds in doing all his or her grocery shopping from supermarket bins. Further on, waste incinerators also compete for this kind of 'clean' waste. Certainly now they have a large surplus capacity, they prefer that people throw away as much as possible because our 'waste' is their bread. Food illustrates very well that 'waste' can be either valuable or worthless in various contexts and at various moments, according to the different perspectives of different parties. In addition, this complex relationship between food and waste also shows that the market plays an important part in determining what is waste and when.

Immaterial waste

We can also waste immaterial things, such as our time, immaterial heritage or digital data. We can waste our time by not using it in a valuable way, though what is valuable is a different thing when we do it in work-time or in our own time. Concerning digital data we see more and more that what we discard thoughtlessly in our waste baskets or post without much thought on a website, can be a source of income for businesses. In many cases we might not want this information to be picked up and used again, raising the ethical question of whom this digital waste really belongs to. Even if you decide to discard your pin-transaction ticket, banks these days consider that they can sell your digital ticket to businesses who wish to gain insight into what you buy. Ethical questions concerning the ownership of digital waste are not restricted to information about

transactions, but they concern content as well. Your Facebook profile belongs to Facebook, but does it still belong to the company when you decide to delete it? One of the first social media websites was recently removed entirely by the company that founded the site, *Geocities*^[2]. Its software had become obsolete and aesthetically it was no longer attractive to new users. Still, they received protests from a number of fanatical users, because these people had stored their precious memories on the site and had links there with friends they did not know outside the platform. (Artists [Olia Lialina](#) and [Dragan Espenschied](#) decided to save the website by downloading it in its entirety and offer it as torrent^[3].) This is remarkably similar to the discussion about maintaining our immaterial heritage. What can we allow to disappear and what should be kept?

Ecology

Waste is a threat as well. The oil and mining industry, for example, inflict great damage to nature all over the world with waste, which varies from oil slicks to the waste materials that result of fracking. Also, there are cities in the world where waste causes diseases. In cities where waste is collected on a regular basis this problem may have been removed from people's sight, but the waste is stacked on garbage dumps outside the city where it is still a threat to nature. Still, this waste is not without value either. Creatures live off this waste, like the rats that live there, for example. It even appears that the plastic 'soup' floating in the Atlantic Ocean, caused by discarded plastic bags, provides valuable nourishment for small organisms (plastiphores).^[4] Should we therefore consider Greenpeace a threat to garbage rats and plastic soup organisms? Governments profit greatly from this kind of waste as well, for example by allowing waste to be dumped in their country, or by accepting money as compensation for damage to the environment. But is it ethically sound to act in this way with regard to environmental damage? The liberal argument is, of course, that the cost will deter the polluter, but history teaches us that this reduces environmental damage to a redeemable entry and so becomes nothing more than a budget item on the account. And if you have enough money, you don't have to worry about it.^[5] And this problem will become bigger as we are better able to relocate waste from the place where it is produced to the place where the potential buyers are.

Globalisation

In addition to animals that have made their habitat out of garbage dumps, there are quite a few people who live off waste as well. In India for instance a small industry revolves around looking for gold in people's excrement and in Ghana car wreckages from all over the world are collected in Suame Magazine, where 200.000 highly trained workers live off the restoration and reuse of car parts. Globalisation plays an important part in this process. With increased possibilities in shipping materials all across the globe, the possibilities of shipping waste from a context where it is worthless to a context where it is valuable, have increased as well. In the same way the West dumps car scraps in Ghana (see, e.g., *Turtle 1* by Melle Smets and Joost van Onna^[6]) which causes the development of large scrapyards, large electronic scrapyards (e-waste)^[7] are now emerging in Africa and China (see, e.g., *Terminal Island* by Xiaowen Zhu^[8]) with our

discarded computers and cell phones. The globalisation of waste creates all kinds of new ethical questions. Is it fair for example that our waste is transported to low-wage countries, simply because the conditions for workers are so poor there that they can be paid with what recycling these materials brings in? Does our waste help them build up an existence there, or do we simply dump our trash on them? And what makes a product worthless on one side of the globe, but the foundation of people's existence on the other side?

Capitalism

Although we prefer to think that people determine what something is worth, we increasingly allow the market to do this for us.[9] This most important aspect of our capitalist society determines whether something is valuable by measuring the supply against the demand. There is not a great demand for potato peels, which is why they are virtually worthless and we throw them away. Only when you collect a large pile of potato peels they become worth something as compost. When the demand for compost is great and the price of large quantities of potato peels exceeds the cost of collecting them, the potato peels suddenly are no longer waste but a commodity for trade. This also means that until then the market determines that the peels are waste and no one will likely collect potato peels for compost. By setting the price of things, the market also determines what is or is not waste. Considering the global waste problem, you might conclude that the market considers too many things to be waste. Therefore: is the *market* the right system to determine the value of things and therefore what is waste and what is not? Can we imagine different value systems in which all potato peels are considered valuable and will be recycled?

According to Raj Patel^[10] the market isn't the right system, because it does not take ecological and social cost into account. These costs are paid by nature and by the people involved in the production confronted with these costs. For example, the real cost of a hamburger was recently assessed at around \$200, while at the fast-food restaurant you might only pay \$1 for this same hamburger. In a capitalist system you do not pay for the costs that were made, but only for the demand in relation to the supply. But even if ecological and social costs would be calculated into a price, this does not appear to offer a solution. According to Michael Sandel^[11] such matters cannot be expressed in money and it will only lead to the 'buying off' of ethical obstacles. Organic meat, for example, is more expensive so the animal has a relatively better life. But do we not also buy off our guilt about the animal spending its entire life in a cage only to be slaughtered for our consumption? The same thing applies to the human suffering that is behind many products. Human wellbeing becomes a tradable commodity, and carries the risk that this also will become waste when demand falls. But if we do not want the market to determine what is waste by weighing demand with supply, what *would* be the right system to determine what is waste and what is valuable?

Quite a few economists, sociologists and philosophers are working on new values and new sustainable economic models. Author and initiator of *The Blue Economy*^[12] Gunter Pauli for instance claims that we are ready for a re-industrialisation. According to Pauli, the cause of material and energy inefficiency, and reason for the huge amount of waste we produce, is the strategy to compete on the basis of cost. This strategy leads to an

economic model in which the bad is cheap and junk rules. The system we have been using until now is not sustainable in the long term. This is why *The Blue Economy* embraces ethics and social capital. Pauli *et al.* claim that open source solutions and free thinkers are the key to success.

The Dutch geo-scientist Klaas van Egmond^[13], also working on new values, says that historic developments are generally characterised by the structural change from ecology to economy, which is to say, to material affluence. Where 'civilisation' arrives, half of nature is lost. Now that human ambitions are outgrowing the (material) capacity of our physical earth, according to Van Egmond, the discussion about the desired and possible 'quality of life' will still have to take place. This quality of life is also determined by the notion of what 'quality' is, which in turn brings forward the issue of how human beings 'see' themselves and the world. Van Egmond has worked this out in further detail in social value orientations, in which his model for an integral global view is made up of two axes: the spectrum from idealism to materialism and the relationship between the individual and the collective. In one of Van Egmond's three scenarios for the future, the dominant value-orientations shift to the middle of the integral global view. This shift would make it possible to prevent one-sidedness of the different global views (quadrants). According to Van Egmond, extreme one-sidedness forms the greatest threat to social continuity.

Art

Artists have a wonderful talent for making waste useful again without transporting it to the other side of the globe, namely by turning it into art. Waste can be the building material for a new artwork, which creates value by making use of a new combination of discarded materials (See, e.g., Duchamps' *Readymades*[14] or, more recently, Benjamin Goulon's *e-Waste* workshops[15]). But also without making these new combinations can artists make waste valuable. A found object presented as an 'objet trouvé' on a pedestal under a spotlight can suddenly be an artwork[16], and a basic material can be made into a symbol for a movement or a conviction (such as the use of felt by Beuys[17] or more recent salt in the work of Remco Torenbosch[18]). The artist says here, in a manner of speaking, that we should look at these objects or materials in a different way, because there are very special shapes or colours to discover, or because they could be the symbol for something. What matters here are aesthetic, poetic or symbolic values, and it's the artist that can focus our attention on these values of things; values that all things potentially possess. Resultantly, each piece of waste is potentially valuable in the hands of an artist.

Questions:

- If everything can be recycled or up-cycled, does waste still exist?
- How do you determine when something is waste?
- Can immaterial matters such as time and digital information be waste?
 - Can you throw away time?
 - Who owns the data you discard in the cloud?
 - Has data already become waste when you put it in the bin, or only when you empty the bin?

- How does globalisation contribute to waste production?
 - How can one thing be waste on one side of the globe and valuable on the other side?
 - Is it honest that our waste is transported to low-wage countries, simply because worker's conditions are so bad there that they can be paid with what recycling materials bring in?
 - Do we really support their existence with this?
- Is capitalism guilty of the production of so much waste?
 - How does putting a price on waste affect its ethics?
 - Is it aesthetically responsible to deal in environmental damage?
 - Are social entrepreneurship and education based on different values important to our students and their future practice?
- What could alternative systems be for determining value? (And perhaps for reducing the amount of waste.)
 - How do you express the value of a human being? (How do you express universal value?)
 - How do you express the value of a work of art? (How do you express symbolic or cultural value?)
 - Which alternative economic / political systems do you consider to be relevant ?
- 'Is this art or can we get rid of it?'
 - How do you turn waste into art? (And is it necessary to be an artist for this? Is what is in their bins art as well?)
 - Exactly what does an artist contribute when he makes a work of art from waste?
 - How much waste do artists produce themselves?

Artists (longlist)

Benjamin Goulon www.recyclism.com/

Xiawhen Zhu www.zhuxiaowen.com/

Melle Smets www.mellesmets.nl

Remco Torenbosch <http://www.remcotorenbosch.com/>

Jonas Lund http://www.huffingtonpost.com/2013/11/05/jonas-lund-art-algorithm_n_4214211.html
<http://jonaslund.biz>

Jeroen Jongeleen
<http://vimeo.com/62873627> <http://flu01.com/> <http://avro.nl/cultuur/kunst/Player/8284775/>

Dani Ploeger <http://www.daniploeger.org/#!biotope/cu9j> <http://www.daniploeger.org/>

Pinar Yoldas
<http://www.pinaryoldas.info/> <http://www.aksioma.org/ecosystem.of.excess/index.html>

Edward Burtynsky, Manufactured Landscapes --
<http://www.youtube.com/watch?v=KZiKBKnesnU>

Karl Heinz Jeron <http://jeron.org/>

Theorists: (longlist)

Thierry Bardini (author of Junkware: about genetic waste/junk DNA)
<http://www.upress.umn.edu/book-division/books/junkware>

Raj Patel [The Value of Nothing](#) How to reshape market society and redefine democracy <http://rajpatel.org/category/books/>

Michael Sandel, What money can't buy <http://www.amazon.com/What-Money-Cant-Buy-Markets/dp/0374533652>

[Jennifer Gabrys](#) . *Accumulation: The Material Politics of Plastic* and *Digital Rubbish: A Natural History of Electronics* and *Plastic and the Work of the Biodegradable*

Gunter

Pauli, <http://theblueeconomy.org/blue/Home.html> <http://www.youtube.com/watch?v=b8wUMaM3GC8#t=58> <http://www.youtube.com/watch?v=sh1Jtv5d5FM> <http://zeri.org/ZERI/Home.html>

Klaas van Egmond, <http://www.klaasvanegmond.nl/eenvormvanbeschaving> Societal Values: Klaas van Egmond at TEDxUtrechtUniversity <https://www.youtube.com/watch?v=Xu-PI86ffLo>
[Kit Pedler](#), [Gerry Davis](#), Mutant 59: the plastic-eaters (SFI)

Martha Nussbaum, Niet voor de winst

http://www.amboanthos.nl/NF_result_titel.asp~T_Id~939~A_Id~65&A_Id2~~A_Id3~
http://www.volkskrant.nl/wca_item/boeken_detail/453/203379/Niet-voor-de-winst.html

Heather Davis and Etienne Turpin <http://anexact.org/Art-in-the-Anthropocene> *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies* edited by (in production/estimated release August 2014)

Inspiration / fact checks

<http://www.clubgreen.nl/blog.html>

<http://www.treehugger.com/design/>

<http://www.unep.org/wed/2013/quickfacts/>

<http://www.foodwise.com.au/foodwaste/food-waste-fast-facts/>

<http://www.biobasedpress.eu/category/articles/>

<http://www.euractiv.com/sustainability/industry-pushes-eu-ban-plastics-news-529188>

<http://www.wageningenur.nl/nl/Expertises-Dienstverlening/Faciliteiten/iLAB-Wageningen.htm>

<http://repository.tudelft.nl/search/ir/?q=contributor%3A%22Karana%2C%20E.%22>

Social Exchange Index (alternative stock exchange index, based on social valule)

krachtinnl.nl/nieuws/3477/maex.html

Agriculture and bio-based products

Udo Prins, Lupines, legumes and meat substitutes

<http://www.trouw.nl/tr/nl/4324/Nieuws/archief/article/detail/1579808/2010/01/16/Onderzoeker-Udo-Prins-Het-kwartje-lijkt-te-gaan-vallen.dhtml>

Other sustainable agricultural and garden projects and publications of the Louis Bolk Institute

<http://www.louisbolk.org/nl/projecten> <http://www.louisbolk.org/nl/publicaties>

Bio-based textile uses sugarcane

<http://www.metropolismag.com/November-2013/Sweet-by-Design/index.php?cparticle=1&siarticle=0#artanc>

De stad en de tuinbouw hebben elkaar nodig! Innovatieve tuinbouw voor de stad in transitie.

<http://www.dezwijger.nl/98069/nl/blooming-cities-de-stad-en-de-tuinbouw>

Real green Energy - plant-e <http://www.dezwijger.nl/106090/nl/stadbericht-283-echte-groene-energie>

Design and materials

Biological concrete

<http://www.sciencedaily.com/releases/2012/12/121220080310.htm>

Hennep concrete

<http://www.orga-architect.nl/hennepbeton/>

All mobile phones in EU to have the same charger: European Parliament votes on law in attempt to cut down electronic clutter <http://www.dailymail.co.uk/news/article-2580597/All-mobile-phones-EU-charger-European-Parliament-votes-law-attempt-cut-electronic-clutter.html> - ixzz2wtqcqdUa

<http://ec.tynt.com/b/rf?id=bBOTTqvd0r3Pooab7jrHcU&u=DailyMail>

<http://www.dailymail.co.uk/news/article-2580597/All-mobile-phones-EU-charger-European-Parliament-votes-law-attempt-cut-electronic-clutter.html#ixzz2vyCKnnfh>

Plant materials from hothouses amount to a giant mound of waste, which is usually composted or burned. But plant remains also contain much valuable energy and valuable fibres. And this makes excellent raw material. For Nova Lignum it was the reason they started product development which eventually led to Ceranex façade panelling. <http://www.novalignum.nl/>

The cash-strapped millennials using 'sharing economy' <http://www.bbc.com/news/business-23848946>

Edible water bottles could reduce the amount of plastic bottle waste, and it can be cooked up in a home kitchen www.ideaconnection.com/new-inventions/ooho-is-an-edible-water-bottle-08170.html?ref=nl040214

Mobile phones in EU to have the same charger: to cut down electronic clutter

<http://www.dailymail.co.uk/news/article-2580597/All-mobile-phones-EU-charger-European-Parliament-votes-law-attempt-cut-electronic-clutter.html#ixzz2wtqcqUa>

Doepel Strijkers: architects and interior designers who work with recycling materials and the re-use of buildings.

<http://www.doepelstrijkers.com/>

Avro Kunstuur broadcast with item about architects Doepel en Stijkers

http://avro.nl/kunstuur/uitzendingen/20140406_uitzending.aspx

Notes:

- food: dumpster divers
- bio-waste / bio-based materials : KP
- digital waste: Geocities
- techno-waste: Benjamin Goulon
- globalisation of waste: Melle Smets / plastic soup
- ethics of waste:
- aesthetics of waste: Thierry Bardini?
- capitalism – over-consumption = waste; alternative models
- separation of waste products / knowledge about re-use / = adding value
- different forms of value
- plastic soup -
- green thoughts

[1] http://en.wikipedia.org/wiki/Garbage_picking

[2] <http://www.geocities.org/>

[3] <http://oneterabyteofkilobyteage.tumblr.com/>

[4] <http://www.trouw.nl/tr/nl/4332/Groen/article/detail/3476133/2013/07/15/De-nieuwe-wereld-leven-op-plastic.dhtml>

[4] <http://pubs.acs.org/doi/abs/10.1021/es401288x?journalCode=esthag>

[5] *What Money Can't Buy*, Michael J. Sandel

[6] <http://www.setupshop.eu/about-the-setupshop-project/>

[7] <http://www.mo.be/dossiers/e-waste>

[8] <http://www.zhuxiaowen.com/Terminal-Island>

[9] Raj Patel (2010) *The Value of Nothing, How to reshape market society and redefine democracy.*

<http://rajpatel.org/category/books/>

[10] Ibid.

[11] *What Money Can't Buy*, Michael J. Sandel

<http://www.youtube.com/watch?v=GvDpYHyBlgc> <http://www.youtube.com/watch?v=UbBv2ZGC2VI>

[12] <http://www.theblueeconomy.org>

[13] Klaas van Egmond, *Een vorm van beschaving* <https://www.youtube.com/watch?v=Xu-PI86ffLo>

[14] http://en.wikipedia.org/wiki/Readymades_of_Marcel_Duchamp

[15] http://en.wikipedia.org/wiki/Benjamin_Gaulon

[16] http://en.wikipedia.org/wiki/Found_object

[17] <http://www.theguardian.com/artanddesign/2009/mar/05/joseph-beuys-homogeneous-infiltration>

[18] <http://www.remcotorenbosch.com/prixderome.html>