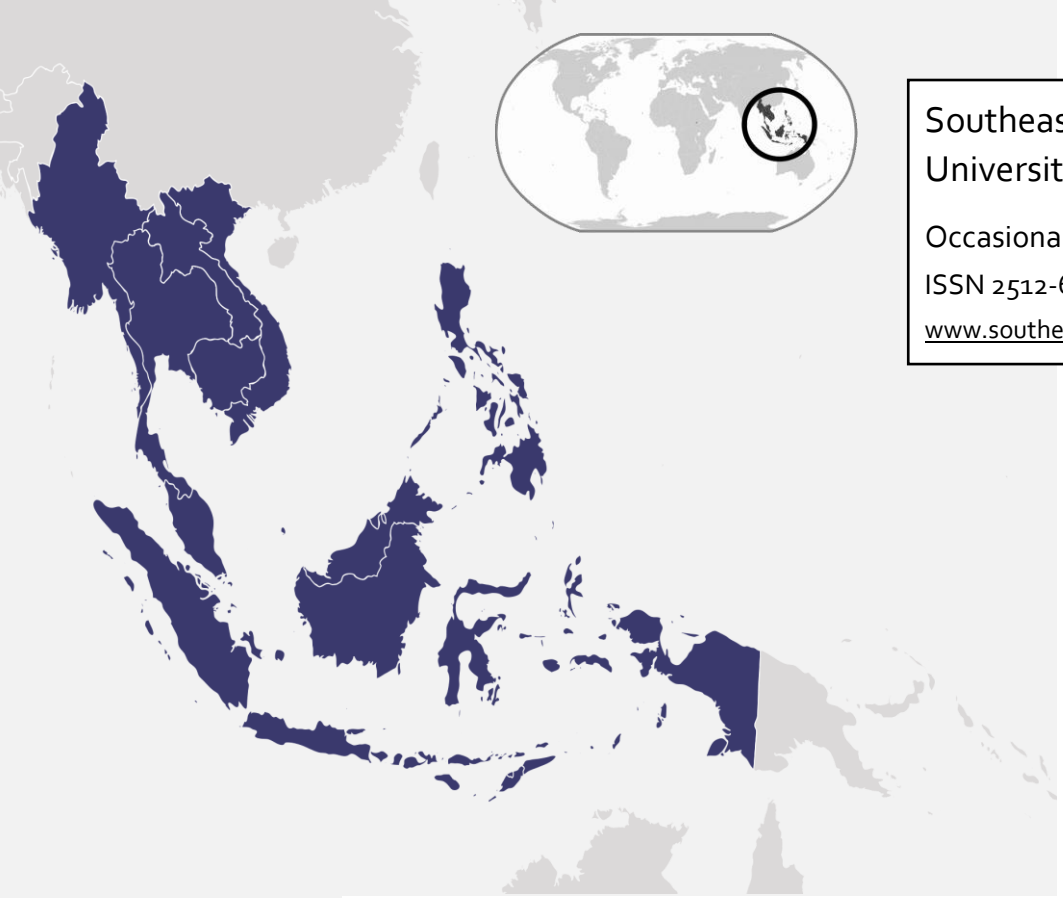

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Abstract:

This article discusses the topic of waste in Indonesia and tries to integrate several practical and theoretical perspectives in its analysis. A socio-religious approach combines an exploration of littering practices in Javanese people's everyday lives with both social inequalities and ways of relating to the environment. This study revealed that an abstract notion of nature is not seen as crucial by most actors. What counts for the individual is rather the immediate social environment. In contrast to the recent ontological turn, the authors see a certain continuity with indigenous Javanese cosmologies that also entail an anthropomorphization and socialization of natural forces in terms of human-spirit relations. On another level, similar to the global environmental discourse, the contemporary ecological emphasis in Islam is put on the realignment of humans and "nature". Government officials and the media are also increasing their efforts to raise awareness for the issue at hand and to encourage the citizens to sort waste and to recycle. But more efficient are bottom-up initiatives such as community "waste banks" and "recycle fashion" street carnivals that address various social, economic and emotional aspects. Thus, a tentative path to transform the waste problem that in the authors' perspective challenges the notions of growth, modernization and human-nonhuman relations is seen in Java in the mobilization of the local social world.

Keywords:

waste, plastic, Javanese worldview, religion, ecology

1. Introduction

While writing this paper, we are staying with a rural family at the South Coast of Java, taking part in and observing their daily waste routines. The family consists of four generations. The old lady of unknown age consumes only very few things and therefore produces hardly any waste. With the organic remnants of her food she feeds the family's fish. Yet if approximately every third day she needs to dispose a plastic bag, she insists on burning it.

From the second to the third generation we can already see a remarkable increase in consumer goods and waste production. Even more so as the young husband and wife do not make their living as farmers anymore but run a small stall (*warung*) in which they offer tiny little portions and amounts of biscuits, shampoo and other modern items, all packed in plastics. They themselves sell their own used plastic and paper to a waste worker who picks the trash up for its disposal. For the rest to be collected and disposed the young couple pay a truck that takes the garbage to a huge landfill which they have never visited. But by far, the most amount of waste is produced by the now two-year-old child. The child wears diapers during the night, it possesses an immense amount of clothing and plastic toys and often eats sweets from the *warung* packed in plastic. Since the trash truck only comes once a week and the tropical climate does not allow storing wet waste for long, the domestic helper of the child's mother digs holes on the neighboring public ground next to a small river and buries the diapers on the spot.

We will take this family as an example in the following analysis of the diverse dimensions that are connected to waste in Indonesia which may also be relevant for other parts of the world. Following the widespread strategy of adding importance to our study by designating waste as a social disaster and the global waste crisis as a threat to the environment and to human health, we also want to point at the waste problem as a challenge concerning and partially caused by growth, progress and modernization. [1] New materials and ever-changing consumption patterns generate problems that are to some extent out of control. In Latour's words, "consequences overwhelm their causes" (2010: 484). Yet it has to be considered that not all our Indonesian interlocutors do perceive waste and garbage as a problem.

At first sight this phenomenon is irritating since there are so many alarming reports on urban and marine pollution, especially caused by plastic debris and microplastics (smaller than 5 mm), both worldwide and especially concerning Indonesia.[2] Global annual plastic production has reached 335 million tons in 2016 (statista) and between 5 and 30 million tons of plastic

[1] We are grateful for the support of the Center for Southeast Asian Social Studies (PSSAT) at Universitas Gadjah Mada Yogyakarta, and the German Senior Expert Service (SES). PSSAT funded the fieldwork within the World Class Professor Program (No.168.A10/D2/KP/2017) of the Ministry of Research, Technology and Higher Education (KEMENRISTEKDIKTI) of the Republic of Indonesia; SES supported workshops for staff training at PSSAT which provided valuable opportunities to discuss our findings and analysis with colleagues and practitioners.

[2] See e.g. Uneputty & Evans (1997) "The impact of plastic debris on the biota of tidal flats in Ambon Bay (eastern Indonesia)," Marine Environmental Research 44(3): 233–242; Lebreton, Greer, & Borrero (2012) "Numerical modelling of floating debris in the world's oceans," Marine Pollution Bulletin 64 (3): 653-661. Available at: http://cleanership.org/reports/numerical-modelling-of-floating-debris-in-the-worlds-oceans.pdf (accessed on 22 May 2018); Rochman, C et al. (2015) "Anthropogenic debris in seafood: Plastic debris and fibres from textiles in fish and bivalves sold for human consumption," Scientific reports, Vol. 5, Article Number: 14340; Tibbetts, J (2015) "Managing marine plastic pollution: policy initiatives to address wayward waste," Environmental Health Perspectives 123(4): A90–A93; EKONID 2016; ISWA 2017.

enter the ocean every year (the figures differ widely). Most studies that have reported on Indonesia's marine plastic waste crisis are based on Jambeck et al's survey (2015) that refers to Indonesia after China as the second-biggest marine pollutant in the world. Jambeck et al estimated for 2010 that Indonesia contributed 3.2 million tons of plastic waste (ibid: 769; cf Indonesian Waste Platform).[3] Nowadays, it is estimated that 5.25 trillion pieces of plastic are swirling around in the world ocean and are building garbage patches which in size are nearly equivalent to the entire land mass of Indonesia.[4] Plastic debris occurs not only on the surface of waters but notably also on the seabed (Barnes et al 2009:1985). Around 80 percent of the waste in the sea originates from land (Leinfelder & Haum 2016).

Indonesia has an enormous amount of large-, medium- and small-sized rivers. Industrial, pharmaceutical, agricultural and domestic waste is often directly discarded into these rivers hence they are filled with all kinds of dirt and floating plastics.[5] Garbage often blocks urban waterways, causes floods, attracts rats and causes diseases. Yet most often the rivers transport the garbage to the sea and some of it is brought back to the beach by the winds and waves, the rest floats in the oceans and is eaten by fish and ultimately by humans as well.[6] Nonetheless, as exemplified by the family above, many Indonesians resist to behave and live according to these threats and the environmentalists' fears.

Obviously, the Indonesian Waste Management Law (Act of the Republic of Indonesia 2008) has shown only limited results. Yet the government has now committed itself to minimizing its marine litter by 70 percent by 2025 and the governmental waste management services are improving slowly. Lately, the topic has been receiving high media and social media attention[7] and there is much concern by civil society activists about the Zero Waste concept.[8]

Most scholarly work on the waste problem focuses on the issue of sustainability and solid waste management, as well as on technological and environmental engineering solutions in the context of a new knowledge-based bioeconomy. Yet Shekdar (2009) rightly suggests an integrated approach especially for Asian countries which includes national frameworks and legal policy, institutional arrangements, the question of appropriate technology, operational and financial management, as well as public awareness and participation (ibid.: 1446). Unfortunately, he only pays little attention to the latter. What he vaguely suggests is education and community participation in decision-making processes. However, it remains open how people can be reached and invited to participate. From this point also, the question arises as to who is seen as a member of a "community" that is held responsible and allegedly

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[3] This is not at all to say that Indonesians in general do the highest harm to the environment. To the contrary, the "ecological footprint" in Indonesia is considerably smaller than, for instance, the one in Germany (Global Footprint Network 2018).

[4] Broderick, D (2017): "Oceans for Fish, not Plastic." *The Jakarta Post*, 7 February. Available at: http://www.thejakartapost.com/academia/2017/02/07/oceans-for-fish-not-plastic.html, (accessed on 2 May 2018).

[5] Indonesia has 260 million inhabitants and urbanization is increasing rapidly. Apart from plastics and antibiotics many other types of waste are polluting the environment. Moreover, pesticides (insecticides, fungicides and herbicides) effect the rice ecosystem and pollute the groundwater and the aquatic environment. See Fox & Winarto (2016).

[6] Remnants of plastic debris were found in fish and shellfish that are sold for human consumption (Rochman et al. 2015: 1).

[7] The media most often focuses on the economic effects it has on tourism especially in respect of Bali where in 2018 a state of emergency had to be announced due to the amount of plastic and other waste at the beaches.

[8] Nilan (2017) even speaks of an "ecological habitus" of Indonesian student environmentalism.

needs education. In the following, we would like to raise the question whether it is appropriate to reproduce the dominant discourse that the uneducated are to be blamed for waste problems.

Though we do appreciate these existing approaches, we nonetheless feel that certain crucial aspects are missing. Technical solutions and individual insights are not sufficient to solve the problems consisting of the residues of market driven globalization and consumer culture. Neither should all responsibility be delegated to specific segments of society (such as "the uneducated") nor solely to the respective governments.

From an anthropological perspective, waste both reflects and influences human habits and social behavior (Dürr & Jaffe 2010: 1). Apart from the wider framework of global governance, intimate knowledge about social mechanisms and local communities' intentionalities and initiatives as well as knowledge about concrete people's attitudes and their ordinary lives – hence their vernacular world (cf Bruun & Kalland 1995: 7) – is needed in order to grasp the waste issue. This holds true for both urban and rural contexts because villagers increasingly take part in so-called modern consumption. We would like to suggest the inclusion of another level, namely the broader cultural orientation and worldview that shape the different notions of and relations towards "nature". Human worldviews (ontologies) are the understanding and articulation of the world's nature and structure, of being-in-the-world and of existing entities and their relations. These worldviews and their related moral order are permanently produced and transformed and they are not unitary within society. There are considerable differences in the ways in which the world is affectively and cognitively experienced and acted upon even within one family such as the one introduced above. We are particularly interested in the social and cultural situatedness of waste and we strive to explore both the social aspects connected to waste management at the South Coast of Java and the worldviews and cosmologies that underpin waste disposal habits. Thus, our central question is: in which way are waste practices related to social organization and to notions of nature and the environment in a local arena of thought and action?

This paper is based on a case study as the main method of enquiry providing rich empirical evidence from the South Coast of Java. This region is of particular interest due to several factors: It is a densely populated area where we were able to juxtapose rural contexts (the regencies of Bantul and Gunung Kidul) with the city of Yogyakarta, which is a multicultural university town with the reputation of being the cultural center of Javaneseness. Apart from participant observation and abundant informal conversations, we conducted narrative interviews with government officials in Yogyakarta and the districts of Bantul and Gunung Kidul, as well as with waste workers, activists, practitioners of communal initiatives and with religious leaders. Our exploration of socio-cultural and socio-religious aspects relies on joint ethnographic fieldwork conducted in 2017 and 2018 and life-long experiences from living and working in Java.

This paper will begin with theoretical remarks, followed by a description of the social waste practices before elaborating local cosmologies. Finally, we will conclude with suggestions on the assemblage of disparate theoretical perspectives as well as with an integration of theory and practice and an inclusion of all spheres of being. A long way, indeed, from dirt in Java to our own moral visions for a better future. Yet the very final aspect of this paper will be about a carnival parade.

2. Theoretical dimensions

At present and in response to the global environmental crisis, the environment plays an increasingly prominent role in worldwide public discourse. Enviro-cultural criticism is rising including radical environmentalism, ecojustice approaches, human ecology, ecofeminism or antiessentialist feminist ecocriticism (Ali 2014; Williams et al. 2012). At the same time, there is also a new interest in political ecology and resource politics that focuses on conflicting interests. Society-nature relations evolve in historically embedded constellations that are linked to power, domination and inequalities. Political ecology highlights the societal and political character of environmental impacts and analyses the appropriation of nature and the distribution and consumption of natural resources as an explicitly political process linked to social relations of ownership and control (Robbins 2012). Feminist political ecology focuses on the intersecting dynamics of gender and class in environmental management.

We will not delve deeply into these important approaches because we wish to contribute something new to the debate. We suggest that what is seen as waste in Indonesia and the way it is handled is embedded in the social, economic and *moral* order. And the latter does not only reflect the social system but encompasses as well the sphere of religion and wider worldviews or cosmologies. [9] Practices concerning waste, socio-economic and political dynamics, perceptions of the environment as well as ideas of human-nature interactions and religiously informed orientations are interrelated. Therefore, in this paper, theoretical approaches focusing on the economic, social and cosmological/religious dimension are taken into account.

Concerning the economic dimension, there is, on the one hand, an important transnational aspect in respect to the world trade with waste.[10] On the other hand, there is simultaneously a vibrant local waste economy in Indonesia linked to broader systems of production and consumption. New notions such as "urban mining" or "landfill mining" point towards the commodification of waste as a resource.

Considering the social dimension, it is obvious that "waste" is an extremely dynamic category (Sosna & Brunclíková 2017). The value of waste is a matter of perspective and social situatedness. It is a structuring concept, conveying social status and class differences and enforcing gendered hierarchies (Cox 2016). Within the public-private division the assignment of women to the domestic sphere exposed to "dirt" is a strong structuring feature. Often waste is associated with marginality and discriminatory practices. Furthermore, the question of responsibilities of state versus tasks of the individual comes to the fore.[11]

The center of attention in this paper is the moral and cosmological dimension. Referring to the classical approach by Mary Douglas (1966), who focused on the normative and symbolic meanings of waste and pollution, waste is not just perceived as a physical entity but it is also seen in relation to danger within certain classification systems. This inspires us to take a

[9] Cosmology refers to models and ontological assumptions of the universe.
[10] Until the recent ban on plastic waste imports, more than half of the world's plastic waste was transported to China whereas electronic waste often goes to Africa.
[11] There are recent interesting studies on how environmental challenges are framed in particular countries and regional contexts (Hirsch 2017).

serious look at the metaphysics of waste as something that produces symbolic order. Closeness to real dirt often becomes analogous to moral dirt (Cox 2016: 98) and waste is frequently associated with morally suspect groups and places. Denigrated "Others" are associated with dirt and smell. Hand in hand with this, religiously informed belief systems, norms and values often construct filth and sin as closely connected. Yet we know by now that there is nowhere just one socio-religious order but that we must consider internal differences and different ways of perceiving and apprehending the world.

Furthermore, lately it has been criticized that traditional functionalist and symbolic perspectives on waste are anthropocentric and essentializing because they imply that humans are the sole producers of waste (Sosna & Brunclíková 2017) and because material things are seen as fixed and stable. This leads to the question how the environment and nature are conceptualized in theoretical literature. This is an extremely complex issue many disciplines have dealt with at length.[12] Both nature and the environment are highly contested cultural categories in the symbolic orders of contemporary societies. They provide important sources of legitimation. Environmental ethics are always connected with worldviews or religions as well as with the economic basis of societies, the modes of production and social structures. Societies transform, (re)produce, manufacture and craft nature along multiple lines of social differentiation. Thus, what we imagine and perceive in the environment as natural is always also cultural and social, shaped by historically produced patterns of experience and interpretation. The crucial question, especially within the dominant environmental discourses, is whether societies see themselves in a binary way as separate from[13] or as part of their "natural" environment.

Recently, the discourse on "Anthropocene" became very prominent (Davies 2016). According to this concept, in the "age of man" the biological processes and planetary conditions are dominated and restructured by human action.[14] Yet there is also criticism against a homogenization of "humankind," seen as an abstract humanity, and implying that the *Anthropos* would destroy nature – a view which, according to these critical voices, mystifies history and obscures differences due to unequal distribution of power. Therefore, Moore (2017) suggests the term "Capitalocene" ("age of capital" referring to capitalist globalization since the fifteenth century) considering patterns of power, production and profit as well as capitalist moralities.[15] Recently, we even encountered the proposition to characterize our age

[12] Environmental problems in the West have been accredited to the Judaeo-Christian cosmology of man's mastery of nature and the Cartesian worldview, separating culture from nature, and creating dichotomies (Bruun & Kalland 1995). In ecofeminist approaches the focus is especially on patriarchal structures that rely on binary opposition, such as between male/female, human/animal, spirit/matter, heaven/earth, mind/body, culture/nature and white/non-white (Hobgood-Oster 2006).

[13] The traditional Western dichotomy between nature and culture can be seen as an "ontology of detachment". However, recent approaches emphasize the human/nature intertwinement and conceptualize humans as part of socio-ecological systems. According to this ontological-epistemological understanding, nature is not just the physical world but the Life World in general. We humans are an integral and interrelated part in it.

[14] The term "Anthropocene" for the current geological epoch in which humanity has become a potent factor within geologic time scale has been coined by the earth system scientist Paul Crutzen at the end of the twentieth century (Davies 2016: 12).

[15] Not surprisingly, there are similar objections against this concept, stressing that also capitalism is not singular in its ethics or unitary in its social organization. For instance, in Southeast Asia, late-modern capitalism has been accompanied by environmental movements, women's rights associations, and new forms of collective religious life (Hefner 2017).

as "Plasticene," "the age of plastic"[16] (Perraudin 2016). Whatever one may think of these designations, they provide food for thought on agencies and responsibilities and they can easily be connected to new theoretical directions that emphasize materiality. New materiality and Actor-Network-Theory (Ingold 2012; Latour 2005) makes us ask not only what humans do to objects by producing waste but also what does waste do to the environment and to us humans. Thus, according to the "ontological turn" rather than reducing waste to a mute product of human agency it is suggested to analyze the entanglements between society, materiality and ontology. This is based on an acknowledgement of nature's agency and mutual translation and circulation between humans shaping environments and environments shaping human perception and practice. Yet as will be argued in this paper, this circulation is taking place within highly differentiated social fields and social relations that are molded by inequalities.

A related question concerns the cosmological significance attributed to nature: In which way is the "*super*natural" situated? Coming back to the idea of nature's agency, we may talk of a co-production of world by many human as well as non-human actors (cf Weber 2003). In this context, it needs to be mentioned that the Indonesian notion of nature (*alam*) is very broad and in the Indonesian language it encompasses many connotations that come close to "world" or "dimension" (Weber 2003): For instance, apart from *alam semesta* – the cosmos – there is also *alam gaib* – the supernatural, magic world. The latter is the spirits' realm and the spirits are related to humans as well as natural forces.

In common Western understanding, the notion of *environment* is narrower and directly anthropocentric. According to Hirsch (2017: 5), the environment is a distinctively modern concept, "a physical system subject to human impact." Interestingly enough, the Indonesian legislative act from 2009 on the protection and administration of the environment says: "The living environment is a unity of space and all things, forces, conditions and living beings, including humans and their activities that impact on nature, the course of life and well-being of humans as well as other living beings."[17] This is much more inclusive than Hirsch's characterization. Yet it remains to be seen in the following if and how this legal concept is reflected in common understanding.

Finally, for the background of our empirical research, it has to be mentioned that also a new religious environmentalism exists that makes connections between the sacred and ecology (Mangunjaya & McKay 2012). In how far this also corresponds to a so-called "new animism" (Århem 2016) and if there is rupture or continuity in the relation between older local cosmologies and recent ecological developments in Islam remains to be seen. We will address this after discussing the social waste practices in Java.

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[16] The omnipresence of plastic in our surroundings and our food chain leads to an amalgamation of the human body with inorganic components.

[17] "*Lingkungan hidup adalah kesatuan ruang dengan semua benda, daya, keadaan, dan makhluk hidup, termasuk manusia dan perilakunya, yang mempengaruhi alam itu sendiri, kelangsungan kehidupan, dan kesejahteraan manusia serta makhluk hidup lain.*" (Undang-undang No. 32/2009, pasal 1 ayat 1).

3. Social practices

As in the rural family introduced above, most of the typical patterns of waste disposal in Indonesia can be observed as such: burning of both organic and plastic waste; disposing it to a quickly dug hole in the ground; throwing it into a river; taking it to temporary trash collection sites (TPS, *Tempat Penampungan Sementara*); selling it to trash collectors (*tukang rongsok*) who push their carts from house to house and buy waste for resale to waste traders and waste depots; and paying for the truck from the local administration (*Dinas Pekerjaan Umum*) that picks up garbage. It is obvious that materiality has an impact since plastic generates other problems than eg banana and teak (*jati*) leaves as packaging material. When we argue that old techniques such as incineration are now dangerous due to new material and that for instance plastic incineration produces toxic emissions, the answer is "*tidak apa-apa*" – it does not matter. When we say that disposing garbage in uncontrolled depots or burying it in the ground pollutes the environment, they will reply "*sudah biasa*" – this is normal. We suggest not to see this as deliberate resistance to normative arguments attempting to "educate" or even discipline villagers (as reported by Dürr and Winder from Mexico) but rather as a normalization strategy and as a self-confident expression of identification with their lifeworlds. The old lady does not want to change her habits and since she uses so few things from plastic, it is not important to her how to dispose of them. The younger generations that use gradually more items from plastic perceive them as practical, clean and modern. And modernity has a positive connotation for both urban citizens and villagers. Referring to plastic bags for shopping and to plastic bottles for drinking water, one statement typical for both rural and urban contexts was: "If we bring our own bag or maybe drink using a normal glass we worry to be seen as old-fashioned."[18]

It has to be emphasized that Javanese people – first of all the women – do everything to keep their houses and courtyards perfectly clean. Like in most Javanese families, cleaning the house and its immediate surroundings is the daily routine for female household members. One can hear the strains of sound of broomsticks or *sapu lidi* (made from coconut leaflets), sweeping the yard already in the very early morning and then again several times during the day. As a member of a group of middle-aged housewives said:

"If our front yard is already clean, we feel good...it is also good in the eyes of our neighbors...if it is unclean...hmm...what will they say? We don't feel good in our hearts..."[19]

But when our rural family was asked how they feel about the plastic waste on the street in front of an empty piece of land next to theirs, they were surprised. They had not even noticed the dirt since they are so accustomed to seeing garbage in the streets and they do not at all perceive it as particularly disturbing.

This empty land provides another significant example as it had been used as a temporary local waste depot (TPS) for many years. Thus, just in front of the family's entrance there had been an ugly, smelling allocation of unsorted garbage that had only once a week been picked up by the local public services. Furthermore, most of the time, there were half- or completely

[18] *Ya soalnya kalau bawa tas sendiri atau mungkin minum pakai gelas biasa itu kita takutnya dianggap kuno.*

[19] This was expressed in the Javanese language: "Yen latare mpun resik niku mpun ayem mbak...disawang tanggane nggih penak yen mpun resik to...mosok do reget...njur mengke dospundi suarane? jan..teng ati nggih mboten penak..."

naked people, outcasts who were designated by the villagers as "crazy" (*orang gila*), sitting amidst the garbage, eating directly from it and sometimes even sleeping there. Everybody affirmed that these people would not accept any food or help and indeed they did not react when they were approached. This constant reminder of human misery and the sight and smell of the garbage was extremely disturbing for the family but their protest and request for removal of the garbage deposit had no effect.

From the perspective of political ecology, this is due to local power structures. Our family does not have deep roots in the village society because the old lady stems from the nearby poor mountain area and only migrated to the present village – originally as a domestic helper – when she was already an adult. Therefore, we suppose that only the family's marginal social status allowed the villagers to dispose waste in front of their house. Yet over the years, the family's social position changed. With the marriage of the young man into a poorer part of a well-respected local family and with an abundant wedding celebration as well as his father's contribution to certain networks of village economy, they gained in status, which meant that finally the garbage depot was removed.

Waste disposals and dumps are always situated in poor people's areas. Indeed, as stated by Douglas, waste produces order. Class hierarchies and power structures related to waste are also observable when it comes to the decision of carelessly throwing litter away and having one other person pick it up. Affluent, highly educated people may throw plastic bottles or used plastic soup bowls out of their car windows. Or, as the gardener of a luxury hotel said, the rich domestic tourists leave lots of garbage at the pool without paying attention to the dust pin because they feel it is their right that the employees clean everything up. Accordingly, these people live in quarters where dirt and waste is kept invisible.

Also domestic tourists, who have paid the entrance fee to the seashore, feel that they have the right to litter their garbage. The majority of urban visitors at the beaches of the South Coast come to have fun and this means to do basically the same as they do in their everyday lives. For example, they rent noisy and polluting beach-motorbikes (ATV) which they drive along the beaches. They are not longing for pristine nature, thus their leisure time is not spent getting in touch with nature, it is not about listening to the sound of the waves and experiencing or sensing the beauty of the ocean (to mention just a few of the romantic desires of many Western tourists) but they enjoy the landscape as a tool for consumption and performance (a new trend is "*wisata selfie*" – Selfie tourism) – they love seeing many other people and they integrate their social network of friends and relatives through posts on social media. Leaving behind lots of plastic waste does not bother them.

A middle-aged shop owner at Ngobaran beach (Gunung Kidul regency) commented: "Those tourists who make dirt…they come here by bus … they bring their own food in boxes…they do not buy food here…but they leave their waste here, with us…"[20] Another example is of someone who owns a big parking lot for tourist busses in Parangtritis (a popular domestic tourist destination at the South Coast in Bantul regency, mostly frequented by lower middle-class visitors). He responded: "The tourists throw their rubbish everywhere and I have to pick it up." Although the use of the word "I" in Indonesian language does not necessarily mean

[20] *"Turis-turis itu yang bikin kotor…mereka kan datang kesini pake bis…nah mereka bawa makanan sendiri pake box kan..mereka ndak beli makanan disini tapi ninggalin sampah disini, ke kami gitu…"*

that he himself picks up the garbage, rather his domestic helper (*pembantu*) will do so. Thus, the task is delegated to the least powerful.

Even at the very bottom of society, we encountered strong inequalities. At present there are around 600 scavengers (*pemulung*) sorting garbage[21] on the huge final dumpsite (TPA - *Tempat Pembuangan Akhir*) in Piyungan where the garbage from three districts (Yogyakarta, Sleman, Bantul) is disposed. Some of these *pemulung* come from far away (other islands) but the majority is from Gunung Kidul, the relatively poor neighboring district. Approximately fifty *pemulung* are locals. These locals are the ones who possess cows and goats that become fat from eating the rubbish – the locals do not allow the newcomers (*pendatang*) to keep cattle.

When the question arises what effect waste has on humans, the first answer is that it depends on the materiality (e.g. leaves or plastic) as well as on the symbolism of waste. The second answer refers to the category of "humans": there are, on the one hand, environmental waste effects that affect all of us, on the other hand, there are clear differences, for instance, in unhealthy living and working conditions and in respect to differing social practices. To put it simply: The waste hierarchy implies that the producers of plastic and other non-degradable materials make big profit; rich people delegate the responsibility for garbage and waste disposal to poorer people; and poor people either make small profit or dispose it to the environment, for instance, by throwing it into rivers. The rivers then carry the trash away, making it invisible to the human environment and – as an effect – having people say "it's no problem."[22] Indeed, most citizens are neither particularly concerned about this human-environment hierarchy nor about the environmental consequences and dangers. As a 40-year-old online motorcycle taxi driver who holds a Bachelor degree from a University in Yogyakarta described:

> *"I used to throw my waste into the Opak river, I didn't have a garbage disposal in my rented house. You know there are many people who throw trash there, not only me...we throw it out in the night...I did it because I did not know where to dispose it...no choice...but now I have moved to another place. There is somebody who organizes household waste. We pay Rp. 25.000 per month...now I don't bother anymore about waste."*[23]

Hence, the question arises why these urban citizens throw their waste into the river in the dark. The answer we received was that they would feel uncomfortable to be seen by other people if they did it during the daytime. Obviously, in their social context it is not considered morally correct conduct to throw household rubbish into the water and people wish to protect their social reputation.

This moral orientation towards the social environment is also a strong driving force when it comes to communal initiatives that strive to implement more public engagement for sorting waste. Many *kampung* (villages or city quarters) have weekly community service (*kerja bakti*) clean-ups that are propagated by the government as part of the traditional system of non-

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[21] *Pemulung*, the waste workers in the informal sector, sell things of economic value, especially plastic and metal, to *pengepul* (waste entrepreneurs) who take it to recycling factories. For a comparison with Vietnam that reveals not only inequalities between locals and migrants but also gendered hierarchies, see Nguyen (2016).

[22] Sometimes this attitude is explained by a "downstream effect". What is out of sight, such as waste that is taken by the water to another place, does not bother people. .

[23] *"Saya membuangnya ke sungai Opak, saya tidak punya tempat sampah di rumah kontrakan saya. Banyak orang kok mbak yang buang sampah disitu, bukan hanya saya mbak...buangnya malam hari, saya begitu karena ya ndak tahu dimana harus membuang sampah...terpaksa aja.. tapi sekarang saya sudah pindah rumah. Ada tukang sampahnya. Kami membayar 25 ribu per bulannya..tidak pusing lagi soal sampah."*

monetary mutual help (*gotong royong*).[24] At times, the governmental sector, in collaboration with private, civil society sectors and religious communities also initiate collaborative initiatives beyond the *kampung* level. *Reresik,* for example, is an activity to clean the South Coast of Java from the scattered litter along the seashore. The event was initiated by the Bantul district government, the Police Mobile Brigade (*Brimob*) based in Yogyakarta by involving all sub-districts and the local societies in the activity. This corresponds with Tsing's observation that environmentalism often generates unexpected social collaborations that bring different political cultures together (Tsing 2005: 228).

As there is a need for locally owned and community-driven solutions, a noteworthy initiative in dealing with waste is called the *Bank Sampah* (waste/garbage bank), a community bank system. It was started in 2008 and developed into addressing the waste crisis produced by the local communities in Yogyakarta. Sorted garbage (papers, plastics, metal, in some banks also glass, cooking oil and wet, compostable garbage) is deposited at certain collection points, then weighed and credit is subsequently recorded in a book. This adoption of the conventional bank system means inviting locals to sort their garbage and "bank" it. Once a year, often before the celebration of Idul Fitri[25] by the end of the fasting month when people need money, an amount that depends on the noted weight of delivered waste is paid out.[26] This money stems from the *Bank Sampah* selling the waste to entrepreneurs (*pengepul*) that take it to the big factories.

The management of a *Bank Sampah* is usually performed by the initiatives of local activists and the practical work is mostly done by female volunteers. Stressing the economic advantage of waste segregation, the *Bank Sampah* system has also been adopted by religious organizations and finally by the Indonesian national government as the currently best way of dealing with waste across the country. The adoption of the system is stated in the Indonesian Government Ordinance No. 81, 2012 (Raharjo et al 2017) which necessitates waste producers to commit to the 3-R principle for waste management (the "reduce, reuse, recycle" model)[27] and has become an integral part of the Innovation of Urban Management (IMP) (Wijayanti & Suryani 2015: 174). By November 2017, there were more than 5.000 *Bank Sampah* in Indonesia, according to our interview with Bambang Suwerda, known as the *Bapak Bank Sampah* Indonesia or the founding father of the waste banks (cf Nilan & Wibawanto 2015: 64). Yogyakarta claims to run 415 *Bank Sampah* and Bantul claims so with 127. They widely differ in size and regularity: Whereas the one led by Pak Bambang by now has three fulltime and several part-time employees[28] and 1.200 members who bring forty different kinds of waste, other *Bank Sampah* open only once a week or even less and are fully run by volunteers.

Obviously, the *Bank Sampah* system relies on the economic value (*nilai ekonomi*) of garbage. At the same time, it is embedded into the social system, as it is a grassroots initiative organized by the local community. It resembles other well-established local communal activities that

[24] For a critical perspective on the government's role in constructing and instrumentalizing the *gotong royong* system as part of its social engineering measures, see Bowen (1986).
[25] For details on the ritual on Idul Fitri, see Yulianto (2011).
[26] Another option is to donate the waste ("*sedekah sampah*") by not demanding the money that can be used for social and humanitarian activities then.
[27] The government of Indonesia has been promoting the 3-R principle since 2007.
[28] This *Bank Sampah* also receive financial support by the government and by big enterprises that can designate their support as "corporate social responsibility."

strengthen social solidarity, bind people together and structure the common social life. The "official" main motivation new members list when filling out a questionnaire is the cleanliness of one's own house ("*supaya rumah bersih*"). Yet the chairman of a middle-sized *Bank Sampah* explained that in his experience it is not the protection of the environment that is the main motivational factor for people to take their waste to a *Bank Sampah* but it is, in fact – apart from the economic gain, and even more crucial – the social factor, namely the connection to the *gotong royong* system. Furthermore, health is an important argument in attracting new members. An abstract notion of nature (*alam*) is not an issue, he says.

The *Bank Sampah*'s citizen engagement resonates with new forms of self-governance that are based on the *gotong royong* system that was especially propagated during the "New Order" of Suharto's authoritarian rule: Urban (and at times also rural) dwellers are encouraged to guide themselves as self-reliant and responsible subjects and communities, appropriating practices that are morally framed as "sustainable" and ecologically correct (Dürr & Fischer forthcoming 2018). Such an encouragement of individual responsibilization (Hird 2017: 245) certainly lowers the government's burden.

But the Indonesian waste problem also requires action from above as informal practice and formal policy go hand in hand. Reflecting on "Trash, Cities and Politics," Dethier (2017) describes early governmental efforts such as ADIPURA, a disclosure program (a monitoring and control instrument) inspecting urban cleanliness, introduced in 1986. This program created reputational incentives for mayors who strive for their cities being acknowledged as "green and clean." Referring to Cribb (2003) Dethier writes: "With the collapse of the authoritarian New Order, the political context for sustained environmental protection disappeared. After Suharto's fall in 1998, environmental issues failed to recover a significant place on the political agenda" (Dethier 2017: 88).

Yet Indonesia has incorporated waste disposal in its national climate change strategy and what we observed is that recently a new emphasis is put on the waste issue.[29] There are considerable local, regional and national efforts to mitigate plastic waste. The government, companies, universities as well as the private sector and religious communities initiated "waste platforms."[30] Walhi, the Indonesian Forum for the Environment (the largest and oldest environmental advocacy NGO in Indonesia) propagates the Zero Waste system and a sustainable, resource efficient circular economy.[31] Remarkably, most of these initiatives do connect neither directly to people's everyday practices nor to their worldviews.

Still, when we visited several local government offices we found some highly engaged civil servants. Whereas the officials in the Governmental Office for Tourism Administration (*Dinas Pariwisata*) in the city of Yogyakarta only repeated the official slogans from the ministry and transferred the responsibility for all activities to local organizations,[32] the civil servants on

[29] At times, the measurements by the central government are not consequent. For instance in 2017 a rule was introduced that shopping bags from plastic had to be sold for 200 Rupiah (1,5 US cents) by modern retailers. After only two months they were given for free again.

[30] http://www.indonesianwaste.org/en/home/

[31] This basically resonates with the recommendations by the International Solid Waste Association (ISWA): see the ISWA Marine Task Force Report 2017.

[32] *Sapto Pesona* is a motto that is supposed to represent the basic values for the development of Indonesian tourism : *Keamanan, Ketertiban, Kebersihan, Kesejukan, Keindahan, Keramahan, Kenangan* (security, order, cleanliness, freshness, beauty, friendliness, memory); *Pokdarwis* is an acronym for *Kelompok Sadar Wisata*

the district level, in the Office for Environmental Service (*Dinas Lingkungan Hidup*) in Bantul and Gunung Kidul regencies, turned out to be much more engaged. They do not only propagate a multidimensional approach, they also experiment with many ways of putting the approach into practice (cf Aftita 2016). Very attentively, they have told us about ideas and potential strategies on the management of the mounting waste in Bantul regency:

> "Basically, public awareness is still low ... and we should admit that the facilities and infrastructure for waste management is also very low ... this makes the circumstances more difficult here... but we should be optimistic...for example, we started to think about making house poles from plastic waste materials. In addition to being recycled, this plastic material is safe for our earthquake-prone area...it is light, flexible and moveable...I started to experiment by frying plastic waste in a frying pan... "[33]

The civil servants also teach people how to make crafts (decoration, bags, even sandals) from recycled plastic. For awareness raising, they collaborate with women's groups (Arisan, PKK, Islamic women's organizations) and work with children, [34] for example, by initiating painting competitions for elementary school children concerning topics such as the natural environment.[35] Another example is the civil servants' collaboration with religious authorities on raising ecological awareness. In one case, the civil servants asked MUI (*Majelis Ulama Islam*, the Council of Islamic Scholars) and other religious leaders to provide speeches and written notes on how humans in their eyes must preserve the environment.

More specifically, in response to the rapid development of the tourism industry, the *Dinas Lingkungan Hidup* in Wonosari (Gunung Kidul regency) is also desperately reaching out to the public to raise awareness for ecologically friendly behavior concerning both visitors and local communities in the region. As one way of dealing with the waste management issue, the local government is demanding only three thousand Rupiah – US$ 0.22 – from each family as a monthly payment for the garbage pickup done by public service employees. This policy is taken into use as to provide local people with an alternative not to litter their garbage into rivers or burning it. The *Dinas Lingkungan Hidup* also cooperates with the Tourism Office (*Dinas Pariwisata*) in setting out a framework for sustainable tourism. An official of the *Dinas Pariwisata* in Gunung Kidul stated that the local tourism industry must not grow rapidly but develop qualitatively. This statement demonstrates the awareness of the threat of the exploding number of visitors as well as the pressing effects of increasing consumption in the official's region.

In March 2018, we were able to witness an outstanding event in the small town Bantul (capital of Bantul regency): the first "Recycle Fashion Carnival". Financially supported by an electricity company, several *Bank Sampah*, the *Dinas Lingkungan Hidup* and many local schools

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(Tourism Awareness Group). These groups promote tourist attractions.

[33] *"Yang jelas, kesadaran masyarakat memang masih kurang mbak...dan kami mengakui bahwa sarana dan prasarana masih sangat kurang...hal ini memperburuk keadaaan..." untuk membuat tiang-tiang rumah dari bahan sampah plastik...selain untuk daur ulang, bahan ini aman untuk daerah kita yang rawan gempa...kan bahannya ringan, fleksible dan bisa dipindah-pindah...Saya sudah mulai bereksperimen dengan menggoreng sampah plastic di wajan..."*

[34] *Arisan* is an informal saving, credit and lottery scheme in Indonesian communities. It is most popular for adult women (across all social strata). Members of an *arisan* association may save or borrow money from their fellow members. Apart from providing financial service, *arisan* has evolved to fulfill many social functions; *Pemberdayaan Kesejahteraan Keluarga* (Family Welfare Empowerment Movement) is semi-governmental and focuses on rural areas.

[35] Though one of the civil servants complained openly that his own son would still buy instant noodles (s*upermie*) at school and would litter the plastic containers anywhere. He sadly remarked that obviously the influence of his peers is bigger than his father's.

collaborated in this one-day event.[36] Around 500 people paraded through the streets displaying colorful, richly decorated costumes made from trash: plastic bags were sewed together to become beautiful dresses, package material created jackets, water bottles were turned into skirts, drinking straws were put together to become wings of birds and angels,... Each group disposed its own extremely creative style, some of them combining the phantasy-costumes with an Islamic headscarf, others imitating sexy pop-culture TV celebrities. References to the shared imaginary of the global environmental movement and mass-mediated popular culture were mixed with references to the local mythology (see photos 1-3). A final performance on the public square was accompanied by music, songs and slogans that pushed the spectators to become active and committed in the struggle against waste and to work together with the goal of a clean environment.

Photo 1 Woman with dress made of recycled material at the Recycle Fashion Carnival in March 2018. © photo: Judith Schlehe

This event was joyful, full of humor, surprise and admiration for each other's creations. There were no heavy moralistic lessons or rationalized threats but rather inspiring pleas for joint efforts and a spirit of communal engagement. The carnival communicated in a new visual language with its spectators by translating indifference about waste into the language of art activism and positive forces (cf Serafini 2014). Strategic, aesthetic and social goals were combined and even beyond the embodied and sensual experiences the passion of the initiators and actors came to the fore (cf Nilan 2017: 7).

[36] The main sponsors were Jejaring Pengelola Sampah Mandiri (JPSM) AMOR Kabupaten Bantul, Dinas Lingkungan Hidup, Dinas Pariwisata, Dimas Diajeng Kabupaten Bantul dan CSR PLN Peduli.

Photo 2 Participants of the recycle carnival performing in their costumes © photo: Judith Schlehe

Photo 3 Costume referring to the mythological Garuda bird made of the local newspaper Kedaulatan Rakyat © photo: Judith Schlehe

This corresponds with an aspect that was emphasized by most of our interlocutors: As we have already seen the main motivation for sorting waste and disposing it properly is not the fear that "nature" could be destroyed or that the natural environment could become polluted or food and water might be toxic – it is *gotong royong*, the idea of joint efforts within the immediate community. In short: the social environment.[37] The Zero Waste Concept is for instance transferred into the sentence "*Bantul Bebas Sampah*" (waste-free Bantul) and stickers with the slogan "*bersih, sehat, nyaman*" (clean, healthy, comfortable) suggest that cleanliness is part of a pleasant life. Cleanliness is thus propagated as a means for enhancing moral integrity, social solidarity and harmony. Such ideals of local social life and environmental aware citizens (cf Dürr & Winder 2016) are most often combined with the propagation of a *revolusi mental* (mental revolution) or – as the English term is popular – "new mindsets." Yet it remained always vague what this would imply.

4. Local cosmologies

Let us for one last time come back to our four-generation rural family. The old woman represents a simple form of *Kejawen* (Javanese mystical worldview and practice). As she cannot walk anymore, she spends most of her time listening to *wayang* (shadow puppet play) on the radio and the *wayang* heroes in her mind become more important and closer related to her than her fellow humans. Her time is structured by the old Javanese calendar and until recently she prepared offerings (flowers, incents and food) for both local tutelary spirits and her ancestors on certain days. These offerings (*sesajen*) were given at specific places in her surroundings. The next generations refrain from this Javanese mystical practice, although the middle-aged ones are religiously rather indifferent. Just the young couple displays its Islamic religiosity. The young woman, who has been abroad as a domestic worker and therefore identifies more with urban modernity, wears a headscarf most of the time. When asked what she learned about nature and the environment in religious lessons in the village mosque she replies "nothing." The environment is not an issue there.

[37] This does not only hold true for ordinary people but for activists as well. Crosby (2013) and Nilan (2017) observed a new tendency among Indonesian environmental activists namely the local rooting of their campaigns taking a deliberate distance to transnational movements.

For our understanding of the cultural changes illustrated by this family, we need to go back in history. In Southeast Asian agricultural societies a common frame of reference are natural metaphors (Bruun & Kalland 1995: 4) where man and the environment are frequently seen as a moral unity. Indigenous cosmologies and non-modern ontologies were based on an intersubjective and personalized universe. In old Java, special trees in each center of a village were seen as inhabited by spirits. These spirits were also to be found in rivers, in mountains and in the sea. Conceptualized as autonomous agents, they could enter human bodies in a state of possession. Spirits could be asked for support and enter a "marriage" relationship as in, for instance, the relationship between Ratu Kidul, the spirit queen of the South Sea, and Panembahan Senopati, the founder of the kingdom of Mataram (Schlehe 1998).[38] Or, as mentioned by one of our interlocutors, in *wayang* the figure of Hanoman, the monkey king, represents a hybridity between humans and animals. Moreover, the Hindu-Javanese story of Dewa Ruci and Bima in search of the Water of Life that became part of *wayang* performances transports basic moral values. Bima found Dewa Ruci after a long journey in his inner self. Hence, local beliefs are crossing the boundaries between humans and other-than-humans (at this point: spirits, gods and goddesses) in transgressive ways and they are conflating the concepts of nature and the self. It may also be said that spirits objectified personalized relationships with the environment or that "nature" was anthropomorphized and socialized. Primordial heroes, spirits, god(s) and kings were seen as responsible for natural processes such as the weather or fertility of plants, and they were – and still are – approached for personal support such as business, health or love problems. At the core of *Kejawen* lies the correspondence between microcosm and macrocosm and the bond between the outer, phenomenal world (*alam lahir*) and the inner aspects of life and self (*alam batin*) (Sugiharto 2008; Endraswara 2011). Thus, within the traditional worldview the social cosmos was populated by human as well as non-human subjects (Århem 2016) and this comprised a moral responsibility towards nature and/or a moral unity. It would have been impolite and dangerous for humans to pollute the realms of spirits. For instance, it was seen as strictly forbidden to urinate at the beaches of the South Coast as this was considered Ratu Kidul's realm.

However, these interpretations that resonate with the above mentioned "new animism" tend to idealize the past by imagining a spiritual affinity of humans to all living beings and growing things. If we apply a socio-religious approach, it becomes obvious that rank and power inequalities were naturalized by notions of different spiritual potency, and natural metaphors were also crucial in the constitution of political authority. Southeast Asian rulers were the lords of "land and water" (Bruun & Kalland 1995: 13), their divine power manifested in every aspect of the natural world. Based on this, the Javanese concept of power became famous for its intersection with the forces of nature (Anderson 1990). Furthermore, what sometimes is overlooked when non-industrial worldviews are reviewed in the context of the "ontological turn" is that a conception of the world as animated by all sorts of entities and forces (Latour 2010: 480) cannot always be equated with multi-naturalism and a multitude of agencies. In Java, relations and transgressions between humans and personifications of nature were highly socialized since the spirits were conceptualized as autonomous agents in

[38] It is difficult to decide whether we should write in the past or present tense. Most Javanese believe in some way in spirits yet the conceptualization of spirits and ghosts are very dynamic and these days they tend to reflect not so much natural forces but modern needs for money or power.

the sense of anthropomorphic figures with human-like appearances and traits. The agency of nature was thus tamed and domesticated. Even natural disasters such as volcanic eruptions or earthquakes are often explained as being a reaction of spirits and a warning against all kinds of perceived ills in human society (Schlehe 2010). Yet so far, to our knowledge, there are no spirits in the Javanese cosmos that are held responsible for the social disaster of waste.

However, modern science removed the sense of moral responsibility towards „nature" by depersonalizing it (Milton 2002: 53).[39] Yet what scholars propagating the modernization theory did not expect, is that this disenchantment was followed by a re-enchantment. The resurgence of so-called world religions and ecological movements both have spread new ways of thinking about nature and the environment.

In contemporary Indonesia we still find a complex engagement with plural religious traditions.[40] However, Islam is dominant and since the 1980s there has been an increasing Islamization of public as well as private life. The Muslim view is that the entire natural world is the Creation of God (*ciptaan Allah*) and humankind is the guardian of the natural order. As a Majelis Ulema Indonesia (MUI, Council of Islamic Scholars) representative explained during his speech for *Idul Adha* (Sacrifice Feast) in September 2017: "Humans were given the mandate to take care of it [nature] by managing and making use of natural sources of energy"[41] (Anonymous 2017). The core of environmental ethics in Islam is a tripartite relationship between the Creator, humankind and his creation. The Earth and everything in it belongs not to humans but to God. Humankind is seen as the guardian of the natural order. Therefore, ecological practice is part of the duties and responsibilities towards the Creator.

Islam can be interpreted in a way that renders the environment paramount. Recent approaches of an Environmental Islam such as *teologi linkungan* (environmental theology) or "green *jihad"* and "*dakwah peduli lingkungan*" or "eco-*dakwah*" (religious and environmental outreach/eco-proselytizing) combine Islamic ideas of creation with environmental protection (Asaad 2011) and traditional methods of conservation (Mangunjaya & McKay 2012).[42] Some of these eco-religious movements are making use of the persuasive power of feelings, emotions, and moral sentiments (Gade 2012). So-called eco-*pesantren* (ecological Islamic boarding schools) by both Nahdlatul Ulama (NU) and Muhammadiyah – the two biggest Muslim mass organizations in Indonesia – have developed new religious curricula, blending religious and technical material with teaching and learning. Eco-*pesantren* also function as enterprises (selling goods or providing outdoor activities for tourists) (Arnez 2014).

Furthermore, as has been mentioned above, during our fieldwork we discovered impressive practical examples for religiously inspired clean-up activities, at times in collaboration with local communities, youth organizations and students. As explained by Maryono (2017) a communal river clean-up (Indonesian: *bersih sungai*, Javanese: *merti kali*) or river

[39] Radical constructivism and post-human technosciences even tend to dematerialize nature or make it disappear (Weber 2003).
[40] Whereas from an anthropological perspective the notion of religion encompasses local beliefs, spiritual and mystical practices and popular religions, the Indonesian state reduces religion to *agama*, the scriptural so-called world-religions.
[41] "*Manusia diberikan amanat untuk merawatnya, dengan cara mengelola dan memanfa'atkan sumber daya alam.*"
[42] *Kristen Hijau* (Green Christians/Protestants) hold very similar basic views.

"restauration" may be inspired, amongst others, by the Qur'ān (Al-quran) and *hadith* saying that in paradise "beautiful" rivers are flowing.[43] The author refers to former times, when, in his words "people interacted with the rivers and loved them – there was empathy. They bathed, fetched water and chatted at the river, the river was an element of social cohesion. Loving the river was heartbeat, feeling, thought and energy to protect it."[44] Interestingly, rituals and traditional spiritual and mystical beliefs connecting people to rivers and water and the forces of nature are not mentioned. However, he differentiates "the former love for rivers from today's attitudes of enjoying the river and the beauty of nature just for recreation and as a hobby."

There is vast literature on Islam and the environment (Fazlun 2002; Foltz, Denny & Baharuddin 2003; Foltz 2003; Saniotis 2012; Mawardi, Setiawan & Supangkat 2016) – but so far mostly from the perspective of religious scholars, leaders (*kyai*) of eco-*pesantren* and religious texts. What about religious ethical imaginaries and religious moralities in social practice? Is there a connection between public ethics, religious change (cf Hefner 2017) and concrete waste practices?

There are some hints that a new idea is slowly emerging that apart from social morality there may be a religious moral obligation towards the environment as well. This is, for instance, reflected in a term that came up in a Television feature on the waste problem in Bali: "ecological sin" (*dosa ekologi*).[45] But most people we talked to did not explicitly connect their waste-related habits to religion except in the very general sense of the widespread statement "cleanliness is a part of faith."[46]

Yet their worldview is shaped by Islamic thinking and so is their lifestyle. What is regarded as Islamic modernity is connected to a high degree of consumerism. This holds true for *halal* Islamic goods that are propagated as such and especially for the idea that buying new things, eg for *Idul Fitri*, is a sign of renewed purity, faithfulness and success (equated with material wealth). Therefore, people will buy eg new clothes, often from poor quality (synthetic clothing made of polyester or acrylic), that will be thrown away soon after. Throwing things away is not seen as a problem, nobody feels guilty for this and there are no doubts that consumption of so-called modern products has a positive value. Hence, the religious idea that people are responsible for nature and the environment is not prominent among common people who rather hold the belief that it is the right of humans to make use of (*memanfaatkan*) nature and hardly ever relate their consumption and waste disposal habits to the issue of nature at all.

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[43] "*Gerakan restorasi sungai, salah satunya terinspirasi dari Al-quran dan Hadist bahwa di Surga itu mengalir sungai-sungai yang 'indah'.*"

[44] "*Dulu masyarakat berinteraksi dan mencintai sungai – ada empati. Mereka mandi, ambil air dari serta bercengkrama di sungai, sungai sebagai elemen kohesi social. Mencintai sungai adalah upaya hati, rasa, pikiran dan tenaga untuk menjaga sungai.*"

[45] Metro TV on 10 March 2018.

[46] An exception was one civil servant in the Dinas Lingkungan Hidup in Bantul who mentioned that they are thinking of making signs (*papan pengumuman*) with the message "To litter is a sin" "- Membuang sampah adalah dosa." So far, the signs mostly refer to social relations making jokes such as "*Kamu yakin Buang Sampah lebih susah daripada Buang Mantan*?" (Are you sure that disposing waste properly is more difficult than separating from your girlfriend/boyfriend?) and "*Semoga yang Nyampah segera Jomblo/ tetap jomblo biar menikmati rasanya dibuang sembarangan*!!!" (May those who litter trash become single soon/remain single to get the feeling of being thrown away). This once more clearly points toward the social world; "*Kebersihan adalah sebagian dari iman.*"

However, religious scholars hold a different view. When one of the authors discussed the issue of consumerism during *Ramadhan* and *Idul Fitri* with the leader of Muhammadiyah's environmental department (*Majelis Lingkungan Hidup*), he asserted that it is not a religious duty to buy new things but just a cultural habit.[47] Furthermore, he explained that Islam should not be seen as anthropocentric as its basic concept connects humans and nature in a unified, integral ecosystem. This can be seen, for example, in the *Fiqh Lingkungan/Fiqh al-bi'ah* - environmental religious law.[48] Though humans are regarded as the representatives of the Creator (*khilafah*) and should act as responsible leaders of other beings, mankind basically has the same status as these other beings have and man has no right to dominate or exploit them (cf Asaad 2011).

Nahdlatul Ulama, Indonesia's largest Muslim organization, has established a special institutional focus on environmental conservation, namely a Disaster Relief and Climate Change Agency (LPBI). One of LPBI's mainstay programs in recent years has been the National *Bank Sampah* (BSN) with fifteen branches that have been established in various parts of Indonesia (LPBI 2016). One representative states in an article in the newspaper *Republika*:

The spectrum of morality *(akhlak)* is not merely directed to the Mercyful God, Allah SWT *(hablu minallah)* and to fellow human beings *(hablu minannas*), but also involves the level of praxis: moral behavior towards the earth and all its contents *(hablu minal-'alam). ....* The occurrence of ... various disasters on earth, demands us to elevate morality in the third dimension, ie not doing damage to the earth. *Surah al-A'raf* verse 56 goes: "And cause not corruption upon the earth after its reformation. And invoke Him in fear and aspiration. Indeed, the mercy of Allah is near to the doers of good." The seriousness of this command is evidenced by the forty times repetition of the same verse in the *Qur'an.*[49]

Accordingly, there are two kinds of efforts *(ikhtiar)*: physical and spiritual. Physical efforts involve all actions in sustainable utilization of natural resources and maintaining the ecosystem, while spiritual efforts are practiced by the use of prayers and serve as evidence of people believing in God.

Notably these scholars distance themselves from what they designate as the secular and materialistic Western way that in their view implies the domination of nature (Asaad 2011: 11) but, at the same time, their approach and terminology connect the *Qu'ranic* sources with present-day (mainly) Western ecological ways of relational thinking. Conversely, these scholars claim this approach, eg of human ecology to be inspired by indigenous (not Islamic) worldviews. However, the reality on the ground, the attitudes of the vast majority of people, is not very much affected by these sophisticated ethical considerations.

Though there is a growing number of puritanical Muslims who discredit local beliefs and practices as superstitious (*shirk,* idolatrous, against *tauhid* or the oneness of God which is the very essence of Islam), many Javanese combine Islam and spiritual or mystical traditions.[50] Some of them would also take part in ceremonies at sacred places (*tempat keramat*) which are

[47] Muhammadiyah is the second largest Muslim organization in Indonesia.
[48] For more information on this see Muhammad et al. (2006).
[49] Thubany, S (2016): Akhlak Terhadap Lingkungan. *Republika*. September 6. Available at: http://www.republika.co.id/berita/koran/opini-koran/16/09/06/od2m4h9-akhlak-terhadap-lingkungan (accessed on 2 May 2018).
[50] Nahdlatul Ulama, the largest Muslim organization, allows a localization of Islam.

always situated at beautiful spots in the landscape. By participating in pilgrimages and ceremonies they may experience a certain relatedness to "nature".

This does not only hold true for *kejawen* oriented Muslims, thus for ceremonies organized by the *Kraton* (sultan's palace) such as the yearly *Labuhan* (offering ceremony at the volcano *Merapi* and the South Coast), or pilgrimages to powerful places organized by spiritual practitioners, such as *orang paranormal*, – it is also part of other religious denominations. For instance, the Javanese Hindu community prepares itself in a highly organized way for their New Year (*nyepi*) with water from the mountain and the sea. Spiritual cleansing means that during the elaborate *Melasti* ceremony at the beach of Parangkusumo (in Bantul regency) the human "dirt" (*kotoran*), which, according to one of the speakers, consists of "dirty thoughts," "dirty words" and "dirty deeds," is transported to the ocean where the priests then take fresh water and sprinkle it over the attendants as a sign of renewal and purification. Here, we have a very explicit connection between dirt (as a metaphor) and morality.

Though in the speeches held at *Melasti* 2018 the reference to the environment was particularly prominent, the participants obviously did not connect this to their practical behavior concerning waste. After they had left the beach, it was full of garbage.[51]

Once more, the majority of urban visitors at the beaches of the South Coast do not come to participate in ceremonies but to just have fun. Thus, compared to formerly more widespread worldviews and spiritual beliefs the present religious orientation is not particularly supportive in providing moral assistance towards environmental awareness and feelings of connectedness with nature that people would not want to pollute. The sophisticated text-based statements of religious scholars have so far only to a very limited extent been transferred into environmentally beneficial practice.

5. Conclusion

The waste issue is profoundly challenging contemporary dominant worldviews and our existing routines of behavior as well as institutions and power structures. Rethinking waste as simultaneously social and material reveals discontent with the metanarrative of human mastery over exterior agency, namely the idea that there are technical solutions for every problem. More generally, it provokes doubts about the whole project of modernity, progress and economic growth. Therefore, on a theoretical level, an inclusive approach to the waste issue interweaves aspects of society, economy, materiality and moral order. This paper's intention is to complement the approaches of political and human ecology and the insights of social symbolism by also considering the basic ethical issues such as worldviews and cosmologies, religions and connections between humans and other-than-humans (conventionally classified as nature and the environment, non-human beings or supernatural agents).

[51] The same could be observed after the Javanese New Year (*Satu Suro*) in 2017. *Satu Suro* celebrations are not centrally organized (as *Melasti* is) but thousands of people spend New Year's night at the beach with their families or friends. Many of them buy cheap thin plastic mats on the sight for single-use to sit on the sand. The next morning the left-behind mats cover the beach – some get picked up by *pemulung* (scavengers), others are blown away by the wind or taken by the waves.

The empirical objective of this study is to develop an understanding for the role of social organizations and ontologies that shape day-to-day habits of waste disposal at the South Coast of Java. Our question was in which way waste practices are contextualized in relation to social organization, notions of nature and to the environment. This question revealed how waste is comprehended, shaped by social configurations and specific cultural repertoires. It turned out that – remarkably different from *kejawen* and from enduring spirit beliefs and practices that relate people to an anthropomorphized and socialized non-human world – awareness of the natural environment is rather low in contemporary Java. Apart from a considerable number of environmental activists, most people do not feel responsible for or connected with the wider natural world. Nor do they feel worried by information on pollution, poisonous emissions or unhealthy food. "*Biar aja*" – let it be...no problem...as long as it is practical and modern. What is emphasized is rather the social realm and morality in the social context. The normative appeal in the above mentioned government-made slogan "*Bersih, sehat, nyaman*" refers to the imaginary of a *kampung* as a small social world that is well ordered and not only physically but also morally clean, good and safe. Thus, the social orientation is clearly differentiated: The main responsibility is to keep one's house clean, then, due to effective social engineering, comes a joint responsibility for the *kampung*, whereas the city's cleanliness is delegated to the local government – and here the consideration of the waste issue already ends. The land, the water, the planet do not matter in this respect.

Since this resonates with many people's orientation, small-scale, local activism is relatively efficient. What counts is reputation. Thus, we can conclude that the crucial ontological system and moral reference is not "nature" but the immediate social environment. This has to be taken into account when talking about a mutual translation and circulation between humans shaping environments and environments shaping human perception. The co-production of "world" by human and non-human actors is increasingly imagined as an affair for the sake of human social relations and consumption.

Within the social environment, the economic, class and gender structures further mold the waste behavior. Women are the ones who handle household garbage. Professional waste workers are at the bottom of society due to their occupation and living conditions. Visible waste marks marginality, it is associated with poverty, low education and morally dubious social spheres. The affluent strata of society manage to live in dirt-free surroundings and keep a "clean" image.[52]

Once one such example as in the area of the South Coast of Java is explored it becomes clear that not just "humanity" is responsible for the Anthropocene or Plasticene deployment but also necessary to consider are the specific hierarchical social systems at hand which give the powerful the right to make profit from new consumption patterns and to pollute the environment. This leads us back to the concept of "Capitalocene" as mentioned above. On this level political engagement and struggle is needed; the Indonesian government should become more active in waste management and even more in measures for waste reduction.

[52] To counter this, Cox recommends – not in respect to Indonesia, but for all of us – not to delegate the work with waste to women and low class people, but to make own experiences with it: "Dealing with our own dirt brings us face to face with our own materiality, it is a very direct connection to the natural world and our place within it" (Cox 2016: 110).

Because, as clearly expressed by Lewe et al. (2016: 36) “the universal and blind rebranding of waste as ‘resource’ contributes to a discourse that mostly serves to hinder effective measures of preventing waste.” Reduction, the first of the 3-R model, is unfortunately not in the center of attention. A sustainable economy would be creative in inventing innovative technologies and materials. A thorough transformation of industrial and agricultural modes of production would imply more environmental governance and new national, regional and global environmental regulations. Beyond the admirable local initiatives in contemporary Indonesia for waste management (reuse and recycle, eg in the *Bank Sampah*) the urgently needed reduction (*pengurangan*) of waste could also be achieved by changing life styles and patterns of consumption. Religion may be a strong driving force in Indonesia to attain these kinds of changes. Islam as well as the other officially acknowledged religions exert a strong influence on their adherents. If religious scholars were more explicit and praxis-oriented in emphasizing obligations towards nature and if they would morally condemn exaggerated consumption and (uncontrolled) waste disposal such a mobilization using religious sentiments would probably have an effect.

Another option (in both religious and secular contexts) is to enhance greater sensibility and to put emphasis on a sensorial inter-involvement with the environment. This option may be grounded in Javanese spiritual traditions, in global environmental discourses or in personal insights and critical reflection. If also embodied, affective bonds with the natural environment would be (re)vitalized and the man-environment relation and resonance would be redefined in an inclusive way. We could then also overcome the dualism between us (humans) and other-than-humans, “nature“ or life worlds. If romantization is avoided Javanese *kejawen* traditions may provide some inspiration for this. Yet having fun with waste and transforming it through a symbolic subversion into creative costumes as in the above mentioned street carnival may also raise awareness for the waste problem and augment inter-involvement with the environment – in a joy- and playful manner. The vital force of this event transported an experience of joint engagement and an idea of the mobilizing and transformative possibilities of social movements. Unfortunately, our rural family was not informed about the event and thus did not take part in the carnival.

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Glossary

BSN	National *Bank Sampah*, one of LPBI's mainstay programs
IMP	Innovation of Urban Management
LPBI	Disaster Relief and Climate Change Agency
MUI	*Majelis Ulama Islam*, the Council of Islamic Scholars
NU	*Nahdlatul Ulama* – one of the two biggest Muslim mass organizations in Indonesia
PKK	*Pemberdayaan Kesejahteraan Keluarga*, Family Welfare Empowerment Movement
TPS	Temporary local waste depot

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