
Narrating Waste Chronicles Through Urban Ethnography: A Tale of Bhubaneswar¹

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With growing urbanization, the attention of researchers has focused on urban problems, including those linked to municipal solid waste. Municipal solid waste generated at household level can be understood as a socio-environmental phenomenon that has multiple social repercussions. If we view the urban system as a human body, then we see a metabolism among all its aspects all the time in terms of social processes. The problems linked to municipal solid waste arise from such metabolism and appear as hybrid phenomena associated with invisible micro-level conflicts. This calls for a political ecology approach that helps us to understand the conflicts that lead to hybridity. This article draws on urban ethnography to offer context-specific insights on these processes in the urban area of Bhubaneswar, India.

Keywords: Urban ethnography, municipal solid waste, urban metabolism, hybrid phenomena, political ecology.

Introduction

Urban spaces are dynamic in nature. Currently, more than half of the world population in western and non-western countries is living in cities, which makes it pivotal to study the urban space (Pardo and Prato 2012). In recent years, there has been a growing attention to the environmental aspects of urban spaces and to the attendant issues. In particular, among the environmental and health aspects of urban geographies, waste and the problems linked to it have attracted the interest of urban researchers.

Waste is not just an environmental issue. Waste problems do not simply result from a high level of industrialization, urbanization and population growth. Also, the seemingly apolitical nature of waste masks a complex reality of urban existence and movements. Waste, we stress, is not apolitical; it is highly political in nature and continuously shapes urban lives and geographies. It is a major aspect of the new kinds of political, environmental and social challenges faced by contemporary urban societies, the study of which requires the use of diverse ecological research paradigms (Little 2007).

The present discussion delves into the social problem of waste, particularly municipal solid waste among the households in the urban space of Bhubaneswar, in the State of Odisha, India, through a political sociological approach supported by urban ethnography. The study of urban settings in India sparked some controversy after Pocock's research (1960) claimed that, here, urban spaces are just the continuity of rural spaces. Yet, Indian urban settings have their unique relevance and identity, calling for detailed study by researchers and policymakers. From time immemorial, cities have provided meaning and identity to people (Bell and Shalit 2022). As they are transformed in the global economy and the local government is decentralized,

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urbanization continues to grow (Niti 2021). In this context, we argue, the empirical study of micro-level processes, their socio-economic and political connections with macro processes and their impact on the life of individuals and the entire community (Prato and Pardo 2013) contributes to a better understanding of a given urban social reality (Pardo and Prato 2012).

The history of research in the modern urban spaces traces back to eminent social scientists, such as Ferdinand Tönnies (see his work on *Gemeinschaft* and *Gessellschaft*, 1887), Emile Durkheim (see his ideas on anomie in his work on suicide, 1897), Georg Simmel (1900), Max Weber (see his work on bureaucratization, 1958) and Alexis de Tocqueville (his analysis of democracy in America, 1945), who studied urban settings extensively. The Chicago school initiated empirical and theoretical research in American urban society. Cities were recognized as complex settings that were large-scale, heterogeneous and highly populated, which impacted people's behaviour, mindset, separation, regrouping, collaboration and competition (Imilan and Marquez 2019).

In the early 1980s, there emerged a strong interest in ethnographic research in urban areas. Pardo's pioneering research in Naples (1989, 1996) based on participant observation and case studies reinforced urban ethnography, developing insights into ordinary people's views of and approach to the social, economic and political system in the city and beyond (Prato and Pardo 2013). Directly significant to the focus of this article, Pardo's work (2011, 2022) on the public health crisis in Naples, Italy, caused by uncollected rubbish and by the illegal rubbish trade has brought out both the inefficiency of the governing bodies to manage waste and the import of citizens' protest against the local government inaction. We shall see that the mismanagement of the waste issues in Bhubaneswar highlights how the interests of a privileged few are fulfilled by the local governing bodies and the state at the expense of the underprivileged many. Here, the mismanagement of waste strengthens the inequality between the higher and lower classes in the city and has a significant impact on the degradation of the environment and of public health. In the process, the rich become richer and acquire the power to tackle the waste issues and the poor become poorer and are deprived of the capacity to handle those issues.

Conducting ethnographic research in urban setting gives the researcher a deeper insight into issues not understood earlier. Ignoring socio-environmental problems and the conflicts shaped by the everyday lives of the people living in that very environment would be a great mistake (Zimmer 2010). Addressing the empirical issues around urban waste with the help of political ecology helps to unravel ecological adaptation among the local communities and to gain insights into culture-specific use of productive systems and technologies, social practices and conflict. It also helps to clarify the exploitation of natural resources by certain social groups, and the stories and ideas put forward by these social groups to justify adaptation and complacency (Little 2007).

An Urban Political Ecology Approach

Cities have become hubs of cultural and socio-political expressions of urban life and everyday practices (Low 1996). They hold the key to understanding the complexity of modern societies. The urban environment and the social changes that take place in it determine each other and

partake in the ‘metabolism’ of the city. The analysis of these dynamics in Bhubaneswar shows how urban political ecology may help to develop an integrated and relational approach that unmasks interconnected economic, political, social and ecological processes, bringing to light uneven urban spaces and uneven social relationships between various actors (Heynen 2013).

We shall see that in the latent conflict between the social groups that marks this ethnography, it is the upper class that benefit and the lower class that suffer. Due to a lack of resources, the latter are unable to improve their surroundings and, for instance, manage the accumulated waste.

The importance of developing an understanding of ‘urban metabolism’ has been put forward by Swyngedouw (1996), who addressed the ideological, material and representational aspects in the uneven power relations through this concept. As Smith points out (2006: xiii-xiv),

‘The notion of metabolism set up the circulation of matter, value, and representations as the vortex of social nature. But, as the original German term, ‘Stoffwechsel’, better suggests, this is not simply a repetitive process of circulation through already established pathways. Habitual circulation there certainly is, but no sense of long-term or even necessarily short-term equilibrium. Rather, ‘Stoffwechsel’ expresses a sense of creativity [...] The production of urban nature is deeply political but it has received far less scrutiny and seems far less visible, precisely because the arrangement of asphalt and concrete, water mains and garbage dumps, cars and subways seem so inimical to our intuitive sense of (external) nature.’

Urban metabolism as an approach that combines techniques from different disciplines can offer comprehensive insights that can help urban planners to reduce the production of waste and improve the treatment and reutilization of wastes in cities (Zhang et al. 2015).

Urban political ecology has underlined the notion of the interrelationships and interconnections between the socio-natural processes and their unequal (uneven) configuration in urban settings. Urban metabolism is a dynamic process leading to the formulation of new socio-spatial entities, the intertwining of the materials and the collaboration of the social and the natural, which are possible only through the interaction between human social practices and non-human processes (Zimmer 2010). This introduces the concept of hybrid interaction. Latour (1993) first used the term ‘hybrids’ intended as ‘mixtures [...] of nature and culture’. Hybrids are tangled assemblages of different entities that cannot be divided into opposing poles. In this sense, municipal solid waste is a hybrid, for it is a result of nature and culture, in terms of people’s way of life. The concept of hybrids allows us to develop a new perspective on ‘matters of concern’ (Latour 2004) that include humans and non-humans, as well as the producers of assemblages, and brings out the implications of individuals’ inability to control the impact of the hybrid on themselves and on the larger community.

Developing and industrialised countries and their cities have traditionally been the focus of urban political ecology (Keil 2005). The growing socio-environmental problems that mark megacities, small and medium towns and peri-urban settlements demand attention (Zimmer 2010). Waste is one of these problems. Urban political ecology looks at socio-environmental

issues that affect marginalized sections in industrialised countries but have not attracted sufficient attention among scholars (Heynen 2006). It recognizes that, as part of nature, waste may seem to be unproblematic but is, instead, a major problem. In line with the process by which in cities everything is hybridised (Zimmer 2010), the dynamics of ‘hybridity’ and ‘metabolism’ underlie the socio-cultural relationship between waste and people. In this study, we have used urban ethnography as a qualitative tool to collect relevant data in an attempt to understand these processes in Bhubaneswar.

The Study Area

Located on the eastern coast of India (see Figure1, left), with a population of 41.9 million, the State of Odisha occupies an area of 155,707 square kilometres as per the Census of India (2011). It is the tenth-largest state in India in terms of area and the eleventh in terms of population size, accounting for 5% of the country’s geographical area, and 4% of the country’s population. According to the 2011 Census, there are 223 urban centres in Odisha and 103 statutory settings, including 5 Corporations, 35 Municipalities and 63 Notified Area Councils (Anand and Deb 2017).

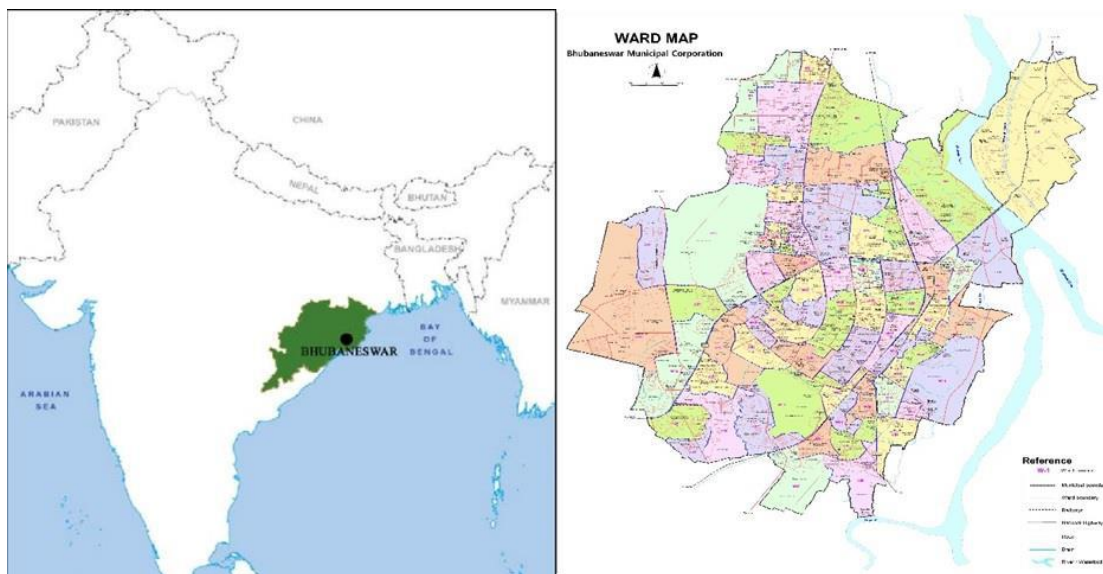


Figure 1. Left: The State of Odisha; source: Saha and Banerjee (2018). Right: The City of Bhubaneswar; source: Bhubaneswar Development Authority.

Located in the Khurda district, Bhubaneswar became the capital of Odisha in 1949. It was designed by the renowned German architect Otto Königsberger in 1946. Bhubaneswar is surrounded by the Daya river in the south and the Kuakhai river in the east. The Chandaka wildlife sanctuary is located on the western side. The average altitude of the city is 148 ft. The Bhubaneswar Municipal Corporation (BMC) is the local administrative body with jurisdiction over an area of 135 square kilometres, covering 67 administrative wards (see Figure1, right). The BMC was established in 1994. In the 67 wards, citizens elect corporators for five years. The officials are the mayor, the deputy mayor and council members who make important decisions about the city, whereas the Commissioner of the city handles all the executive functions. According to the 2011 Census, the city’s population amounts to 885,363 people,

163,983 (18.5 %) of whom reside in slum areas (Anand and Deb 2017). In 2011, there were 445,233 male inhabitants and 392,504 female inhabitants. The decadal growth rate of the city is 45.9%. Literacy rates stand at 95.69% for males and 90.26% for females.

Methods

Our research intended to study in depth the problems people face in relation to waste in Bhubaneswar. We did our ethnographic study from March 2020 to April 2022 relying on qualitative research methods; specifically, we used semi-structured interviews and gained relevant insights from participant observations. Before starting the fieldwork, we visited Bhubaneswar Municipal Corporation (BMC) office to obtain permission to interview local people. We also obtained permission from the Institutional Ethics Committee for Human Research of the National Institute of Science Education and Research at Bhubaneswar. During that phase of the research, we studied the official data on waste produced by various government sources with particular reference to the city of Bhubaneswar.

The *Badu Sahi* (ward No. 54) and *Sriram Nagar* (ward No. 59) near the world-famous *Lingaraj Temple* were randomly chosen as setting for our study. Our research objectives were explained to the 20 participants and interviews were conducted at mutually convenient times. Albeit semi-structured, the questions were designed carefully to investigate the problem of littering, its causes, people's waste segregation behaviour and the impact of the *Swachh Bharat Abhiyan* (Clean India Mission launched by the Government of India in 2014) on the littering behaviour of the residents. With a view to penetrating the socio-cultural and environmental context of waste management in the city, the interviews and discussions were conducted, transcribed and analysed qualitatively. The analysis included keyword analysis (Russell 2011), development of common themes, categories and appropriate thematic inferences. The social groups involved and their interests and perspectives were mapped to understand views, conflicts, resolutions and intentions (Meltzoff 2013).

A Brief History of Waste Management in the City

The BMC is responsible for waste management in the city. The 74th Amendment of the 1993 Constitution, the Orissa Municipal Act of 1950 and the Orissa Municipal Rules of 1953 govern the constitution and functioning of the BMC. Yet, the power to call for information, conduct inspection, give direction and even dissolve the urban local body remains in the hands of the state government. The obligatory functions of the BMC include maintenance of roads, street lights, sanitation, water supply, registration of births and deaths, public immunization and regulation of buildings. The discretionary functions include construction and maintenance of parks, schools, hospitals and libraries.

The management of the solid waste generated in the city is among the obligatory functions of the BMC. However, there are problems caused by the improper disposal of waste, lack of treatment facilities and inefficient collection systems. Poor management of hazardous and bio-medical waste is an additional concern (Mohanty et al. 2014). There are many legislations at national, state and local levels which govern the local management of municipal

solid waste. They include the Orissa Municipal Corporation Act of 1950; Hazardous Wastes (Management and Handling) rules established in 1989, the Bio-Medical Waste (Management and Handling) rules established in 1998; the Municipal Waste (Management and Handling) rules established in 1999, the Manual on Municipal Solid Waste Management of 2000; the Plastic and Other Non-biodegradable Garbage Ordinance of July 2000; and the Solid Waste Management rule established in 2016.

Initially, in Bhubaneswar there was no systematic waste collection and management of the waste. It was only with the establishment of the local bodies that the problem of waste was recognized. and rules and regulations were drafted on how the waste collected from households should be treated and managed. However, for many years the improper disposal of household waste has been practiced in the city.

Results and Discussion

Urban spaces cannot be described as clean if they look clean only on the outside. Having clean roads does not make a city clean and devoid of waste. The reality lies in the neighbourhoods and the lanes where the residents live their daily lives and deal with waste. The municipal corporation of Bhubaneswar has strived to collect waste daily through door-to-door collection but the issue has not been solved, as it is linked with the waste-related behaviour of the residents. Waste keeps accumulating at multiple sites all the time. Many kinds of solid waste can be seen unattended and unnoticed both by the authorities and by the people who live there.

A large part of the local waste-related problems can be understood by investigating the perception and belief of the residents on waste. The *Old Town* is regarded to have poor waste management. Conducting an ethnographic study in its neighbourhoods of *Badu Sahi* and *Sriram Nagar* has helped us to gain a better understanding of the underlying problems. The residents never talked about the problem of waste in their locality but, when asked, they did express their views on the issue and the related matters. During our study, we did not observe any effort by the members of the local community to bring a change in the deplorable local living conditions and in their waste-related behaviour.

The simple, often ignored issues of waste dominate the lives of the residents, who do not seem to be aware that the objects that they discard have started taking control of their lives. For them, things no longer useful need to be turned into waste; yet, simply discarding an object is not the solution as it becomes part of the problem. When asked their views about waste, some accepted their life with waste; living with waste, surrounded by piles of garbage seem to have become their way of life. Many seemed unconcerned with this problem. For them, waste is normal; it is a mundane and obvious thing. The removal and management of waste does not matter to them. They do not think about it.

However, some class-based differences have emerged in the residents' attitudes and in the social perception of waste. While wealthy families maintained cleanliness and were more conscious about the disposal of waste, we did not observe a similar attitude among families belonging to the poorer socioeconomic categories. The latter were worried only about their food, clothing and other basic needs. They had no time and luxury to even think about the waste

that they produced and about its management and impact on the environment. The very act of maintaining cleanliness and being conscious of the waste generated, we noted, was a source of conflict between the wealthy families and the poor families. The former blamed the latter for generating more waste and not maintaining cleanliness in the area. On the other hand, the poor families blamed the wealthy for throwing waste from the top floors in the streets. Interestingly, however, this conflict has developed only in a latent form. Chinamyee, a 37-year-old woman who lives in *Badu Sahi* remarked:

‘Nobody likes waste. Nobody wants to see waste. I burn my litter, never throw it in the street. We should ask people not to litter but who will listen? I don’t say anything to litterers. If the BMC waste collectors collected waste daily, then the waste problem could be solved. Waste is also creating conflict here, as people quarrel about throwing waste in each other’s areas. I think everyone should be responsible for cleaning everything. Because of lack of education, people don’t know the proper way to dispose of waste. They litter, which harms the environment.’

The present condition of the city is strongly determined by the social practices and daily lives of the city dwellers. Rasmita, a woman aged 38 who lives in *Badu Sahi* said, ‘I think people litter because they want to litter and they do such acts according to their will’.

The living conditions of the residents have degraded considerably. The education of children has been hampered and economic conditions have deteriorated. There is also a gender dimension in the waste issues that needs attention. Women are expected to dispose of the household waste in the dustbins that are situated outside their homes and are to be emptied by the BMC. Women are expected to do all the disposal-related work even if men participate in the generation of waste.

Notably, what is observed and understood by us as a problem may not be a problem for some local people. In the neighbourhood, the views on waste and healthy living conditions and on the level of pollution varied greatly. In spite of the observable presence of waste-related problems in the area, when residents were asked about these problems, some responded that they never faced any problem and they were fine with the situation there, suggesting that they are accustomed to living in such conditions and, unaware of the existence and ramifications of the waste problem, have no complaints.

In this sense, solid waste has turned into a hybrid in the urban space. In Bhubaneswar, the impact of solid waste on the lives of the residents is evident. The relationship between the residents and waste exists from the time of its production to the time of its management by the governing bodies. The class conflicts in the city bring out diverse aspects of the metabolism between waste and the city residents. The generated waste functions as political object in the form of a ‘hybrid’, shaping the relationships between various social groups and individuals.

City Dwellers’ Predicament

It is important to understand the needs and problems of the residents before formulating a policy of waste management. Policy decisions are not democratic if the needs of the residents

are not addressed. It is essential to engage the residents in the policy formulation, as such engagement helps to take into account the local socio-cultural environment.

For example, we have seen that residents complain about people dumping waste near each other's houses. Some living on the top floors discard their waste by throwing it in the street below, soiling the vehicles and the homes below. In some cases, the problem became so serious that tenants had to leave their homes. Another conflict between owners and tenants involves them blaming each other for the unhygienic conditions of the neighbourhood. Moreover, a tussle has developed between two well-off classes; that is, the wealthy who own their homes and are permanent residents and the middle-class who do not own their house and are not permanent residents of the city. The ownership of the resources makes a group more powerful and, as a result, they raise their voice and exert their power.

Leftover food is often disposed of in the street. Some of it is eaten by the wandering cows and stray dogs, the rest is taken away by the BMC waste collector the next day. In spite of the foul smell that it emanates in the heath, the residents appear to ignore the problem as they go about their daily lives. They say that the BMC waste collectors have a duty to collect the waste. As there is, however, a scheduled time for waste collection, some believe that for the rest of the time, the residents should take responsibility for keeping their streets clean and disposing of waste properly.

As the relationship between waste and humans also affects non-humans, there are some additional complications caused by animals that need attention.

The bull. Being a temple city, Bhubaneswar is home to many bulls, especially in the oldest area of the city. Bulls are considered sacred in the Hindu faith because a bull is the mount of Lord Shiva. Not seen as polluted, they stand undisturbed near the big dustbins in search for food. Many times, we observed bulls eating the food thrown by the residents along with polyethylene and other harmful objects. This reminds us of the interdependency between different species in the urban ecosystem and underlines the concept of waste as a hybrid phenomenon that not only affects humans but also, animals and other creatures living in that system.

The dog. Dogs are the only creature about which all the residents complained. They felt disgusted by undomesticated, stray dogs eating from a trash can but would not generally do anything about it. They could do two things: they could feed the dogs or could dispose of their waste properly, away from the dogs' sight and reach; yet, we did not see people doing either. Of course, dogs were not responsible for the waste generated locally; in fact, their only fault was to search for food in the trash cans. However, as they roamed the areas in large numbers, they were deemed to be entirely responsible for scattering the waste all around and making the area unclean. The notion of pollution is associated with these dogs by the residents, who would not touch them out of fear of infection. This does not apply to bulls and cows which also scatter waste in the city; they are regarded as purer than dogs and are not accused of polluting the city. While dogs are often beaten by the residents, this does not happen with bulls and cows. This link between purity and pollution, living beings and non-humans, and sacred and profane, suggests that the hierarchy created by humans in their lives and the associated meanings extend to animals.

The bird. Birds are believed to be the most innocent creatures populating this area. Although pigeons and crows are often spotted near the garbage piles, moving slowly, collecting food and flying away, they are the local animals least affected by human discrimination and are exempt from the opposition between purity and pollution. Being small, it is believed, they cannot scatter the waste. Not only do they remain outside the human-animal conflict, but they seem well adapted; for instance, during the fieldwork, we observed that birds were well adapted to the urban setting, finding their home on light posts instead of trees.

The rat. Rats troubled the residents the most. They live near the waste mounds, close to the human settlements. Rats are associated with filth, disease, disgust and poor living condition. Yet, there was no action to address the rat menace.

While residents recognised the problems caused by the animals living in their ecosystem, they seemed to be powerless in controlling the animals' behaviour. Samprati, a 61-year-old woman who lives in *Badu Sahi*, said:

‘Solid waste is not at all good for our environment. There is a foul smell, due to this. The dogs pollute more. There is the breeding of mosquitoes and flies causing diseases. They are dangerous to us. Moreover, waste does not look good. Dogs eat badly disposed waste and die because it contains harmful materials. Cows and bulls get their tongue cut while chewing food. Most of the time, glass objects which are harmful to animals are thrown out. Polythene and other plastic materials have also caused harm to all these animals. The dogs, bulls and cows feel great pain and die when eating these things as their belly swells.’

As we have mentioned, during the study, we observed that many residents seemed unaware of the import of the local waste problems and did not consider these problems as important. We also noticed some women throwing household waste near the *Bindusagar lake* situated near *Badu Sahi*. The lake was not being cleaned properly. On several occasions, we noticed big rats in that dump yard. The residents complained about the mosquitoes and the rats but did nothing to address the problem.

Although the waste collectors of the BMC worked regularly in the area,² the collection was ineffective as some residents would forget to hand over their waste to them and did not bother about the cleanliness of their neighbourhood. The collectors also failed to collect waste door to door. Some residents said that the sweepers did not do a proper job; others complained about irregular waste collection; yet, we saw waste collectors doing their job every day. This contradiction reflects residents' general dissatisfaction with the government service providers. Food waste from the entire locality was being given as food to the cows and plastic and other types of waste were thrown in the lanes.

Things were not helped by the absence of public dustbins. Sila Rani, a 54-year-old woman who lives in *Sri Ram Nagar* stated, ‘There is no dustbin in our locality. Even if the dustbins are provided, people will throw waste outside not inside the dustbin. They are lazy’. In the absence of dustbins in the locality, residents kept their waste in buckets and polyethylene containers. Even

² Generally, waste collectors are male, while sweepers are female.

when waste items are kept separate, once people hand their waste over to the collectors to be carried away, the latter would mix all types of waste. While residents would not admit that they litter, they would nonetheless litter in front of us. Yet, they did not seem to recognize the inconsistency between what they said and what they did.

We did not register any significant impact of the central government's awareness programme *Swachh Bharat Abhiyan*. Residents opined that government policies made no impact on people's behaviour. We found, however, that people's economic background played a role in determining their opinions, voices and perspectives on waste management, littering and government policies. Aparajit, a 42-year-old man living in *Sri Ram Nagar*, said:

'Bhubaneswar has a waste problem. We face the problem of dogs scattering waste all around. Walking in the road is difficult. Even after the BMC workers clean the roads, people still litter and throw waste. Our *Sahi* (colony) is the most polluted. People are not concerned. Children suffer from water-borne diseases, due to unhygienic living conditions. The pipes leak. Sewage water mixes with drinking water. There are skin diseases as well. The BMC is getting benefits from utilizing waste. Through privatization, the BMC and private bodies involved in waste handling are getting the benefit. What they are giving people in return? Waste gives a lot of benefits and is very useful. If recycled properly, it gives a lot of benefits. The rag pickers make a living out of selling the water bottles. Without any investment, they are making a profit.'

Urban production and consumption lead to changes in the spatial formation and point to the urban metabolic force (Smith 2006), conflicts and struggles. The interplay between people, urban space and things (Heynen 2013) brings out a break in the dualistic view of urban space and of the relations of power between different social groups and between nature and social groups.

As an indication of the political aspect of waste collection in Bhubaneswar, during our fieldwork, we observed a change in household waste collection immediately after the local election and the subsequent appointment of corporators in the various wards. Initially, the BMC waste collectors carried a cart and collected waste from door to door in the early morning; they would blow sirens to signal to the residents that they should hand over their waste. This practice changed after the election, as the BMC workers were replaced by '*Saphei Gadi*' (waste collection vehicles). While the song '*Mu Saphei Bala...*' (I am the cleaning person) played on loudspeakers, four to five men collected the waste in two separate places designated as collection points for 'wet waste' and 'dry waste'. Daily, the song acted as a reminder to the residents that they were to hand their waste over to the collectors. Ironically, the '*Saphei gadi*' were there before the election but were not used to collect waste. Then, only a few lanes were serviced and individual workers would collect the waste.

Practices Adopted to Address the Problems of Waste

As we have pointed out earlier in this discussion, during our fieldwork, we collected information on individuals' perception and awareness of waste. We gained knowledge on the local cultural significance of waste, public perceptions of rubbish and current waste-disposal

practices. From the respondents, we gained a view of the role of political ecology in the prevalence of interest groups related to the management of waste in the city. Many negative perspectives also came to the fore. As we were not considered foreign to the city, respondents felt able to express themselves fully, bringing out their true perceptions, practices and beliefs regarding waste production and management. The community was clearly concerned with the health and wellbeing of its members but did little to address the issue. The separation of dry and wet waste was generally absent, as most local people lacked knowledge about dry and wet waste and threw away the waste indiscriminately.

We also registered a lack of cooperation and coordination among the residents, and in some cases a latent conflict, in dealing with the waste problem. Nobody likes waste. People recognize the existence of waste-related issues and that the presence of waste in the surroundings is not ideal. However, they do not want to be identified with the waste they generate. Here, the association of humans with waste is evident but unacknowledged by the respondents, which plays a role in preventing the residents from taking action and even discussing waste. It is worth repeating that, even if a willingness to resolve the issues was there, no action was taken, and there were no shout-outs, strikes or social movements.

Local people generally hesitate to speak about waste, which helps to explain why most respondents do not stop those who litter or improperly dispose of waste. So, the blame game goes on and the problem remains unresolved. Meanwhile, ordinary people live with the consequences of this situation, pointing to the importance of integrating an understanding of the local socio-cultural context into the waste management plan in order to make it more effective (Fruitema 2015). The existing conflict is evident from the statements reported below.

Sila Rani Makaddam, a 54-year-old woman living in *Badu Sahi*, said: ‘We always ask children to dispose of waste properly but do not ask this of the neighbours and the outsiders.’

Chinmayee Makaddam, a 54-year-old woman living in *Badu Sahi*, said: ‘Everyone takes photos but there’s no serious attempt to clean the city. *Swachh Bharat* means to make India clean but if all clean seriously there will be no waste. People are keener on being acknowledged as social workers than meaningfully contributing to the cause. If every individual does their duty of cleaning the areas, then there will be no problem with waste at all. We create all the problems. The temple nearby has been made dirty. The residents throw waste on temples.’

Some families did not consider waste as a problem in that area. They say they do not need the dustbins to separate the dry and wet waste.

Charulata, aged 57, living in *Badu Sahi*, said: ‘We don’t separate the waste. We will not do so. We throw all the waste. We don’t need dustbins as we produce less waste [...] We don’t have any problem due to waste. We don’t litter. We are permanent settlers; we have lived here for a generation. We are priests of *lord Lingaraj* and we don’t have any sort of problem. We don’t say anything to those

who litter because the spaces and areas belong to all. Tenants have the problem of waste, which we don't have.'

The city residents believe that the policies formulated by the central government and the state governments, such as those of Swachh Bharat Abhiyan and Swachh Bhubaneswar Abhiyan, have not been effective. They, local people note, may have served to gain political mileage, but have not contributed to the betterment of the city. Their effect has been cosmetic, they say, as residents have temporarily cleaned their surroundings in order to take photographs and share them on social media.

These social processes contribute to the production of hybrids in this urban setting and are evident through the vulnerability, interests, actions, strategies and power relations of the actors involved. Our study found that poor families are more vulnerable to the impacts of waste in terms of poor health, hygiene and sanitation. They lack the resources to reduce their vulnerabilities. On the other hand, wealthy families have better access to resources, which they use to avoid (and ignore) the immediate impact of the generated waste; yet, they are unable to root out the problem, for the metabolic process between waste and people affects every individual living in the city.

The blame game goes on between different social groups, who refuse to accept responsibility for the production of waste and its safe disposal, and are in conflict with each other (for example, the relationship between the tenants and owners). In such a situation, political parties benefit from managing waste at their convenience.

Conclusions

The invisible life of a city is made visible because of constant production of hybrids (Zimmer 2010). The ethnography that we have discussed in this article has met the point that hybrids are formed by various biological, physical and cultural factors, and by people's social practices and relationships (Swyngedouw et al. 2002, Swyngedouw 2004). The analysis has contributed to show how the three important aspects of hybrids — the material, commodified and constructivist dimensions — are mediated through human social relations and the relationship of humans with nature (Becker and Jahn 2006).

Cities are, without doubt, complex centres of cultural and ethnic interactions which establish the ideal setting for achieving sustainable development (Prato and Pardo 2013). This goal is regarded as central both by the United Nations and by individual countries, and depends on urban policies resulting in peace, justice and prosperity for all. In many cases, it has been elusive because urban policies have failed to take into account the historical, social, cultural and political trajectory of the cities under consideration, and have consequently failed to address critical issues, including socio-economic disparities, security and serious environmental and health problems issues (Pardo 2011, Pardo et al. 2020). As shown by Pardo's ethnography on uncollected rubbish in Naples (2022), the effective management of waste is one of these critical issues. The case of Bhubaneswar exemplifies how this issue is intricately related to better health care, economic and social equality and the protection of the rights of all citizens. Addressing this interaction and the underlying views, values and identity

of the people on the ground is a priority that qualifies broader policies and governance that respect fully democratic principles and the rights of citizenship (Pardo et al. 2020).

To work effectively, a democratic country needs a good relationship between governance, citizenship and the law, and, for this to happen, governance and the law need to abide by fundamental democratic principles and refrain from following selective interest (Pardo 2011). During our ethnographic study we did not participate in the local social conflict. Instead, we tried to understand what was going on from the perspective of the residents and find out the nature of the waste issue, the class conflict associated with it and the connections among the various social groups involved in this conflict. Ineffective policies need to be revisited and appropriate changes need to be made with the participation of the residents for the development of the city. Negotiation and coordination among all the relevant stakeholders are essential to resolve this issue. Key actors in this process are the lower-class residents, so far marginalised and without the power to change the waste narrative. We hope that, as our research findings on waste and the associated conflict make visible latent aspects of the waste problem and of local power relations that were previously invisible, they may contribute to an understanding of this situation. We also hope that they may enable policy advocates and social activists to question governmental bodies and other authorities about the effectiveness of their policies and actions.

Urban ethnography is an established approach to tracing the evolution of the urban world and its political, economic and cultural dynamics (Pardo et al. 2020). We suggest that the ethnography of urban waste can contribute to this key field by offering an understanding of urban political ecology. Waste is an integral part of human life. There is nothing dirty and unclean about waste. Cleanliness and uncleanliness are subjective and culturally idiosyncratic and interdependent concepts. The concept of uncleanliness itself carries within the concept of cleanliness. The clean state of mind and the clean spaces that humans are searching for are there, within the waste, the dirt, the trash, the rubbish. What may seem as a paradox is a reality.

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