

Mapping Environmental Commitment: A Situational Analysis of Illegal Dumps in the City

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Abstract: The paper refers to the research *Trash in the Wild: A Pilot Project Mapping Citizenship Environmental Activism in the Collaborative Study in the Lodz Area*. In the study, inhabitants of Lodz (Poland) were invited to participate in data gathering and create a map of unauthorized dumps in their city. The collaborative mapping was intended to localize problematic spots in the city of Lodz, but it also shows civic commitment and the inhabitants' ecological consciousness level. The authors based on ethnographic data (observations, walk-alongs, interviews, and data obtained from institutions), attempting to develop a situational analysis of the phenomenon of illegal dumps in the city. The analysis reveals how different positions of the City Guard, Municipal Economy Department, waste disposal companies, journalists, environmental activists, researchers, and citizens participating in the project vary their standpoints and views on the studied problem. Presenting the context and first results of the research, the authors refer to the issue of building relationships with researched subjects during the investigation process. Trying to navigate between them, researchers strive to introduce their different, sometimes contradictory, viewpoints into the research, not losing their commitment and the valuable data they can submit. The analysis shows that the issue of illegal dumps lies at the intersection of many discourses and involves numerous social worlds, organizations, and entities. In this dynamic situation, many practices and conditions contribute to the persistence of the problem of illegal waste disposal.

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This article refers to the research study *Trash in the Wild: A Pilot*

*Project Mapping Citizenship Environmental Activism in the Collaborative Study in the Lodz Area*¹ carried out in the fourth largest city² in Poland in 2021–2022. The project concerns social practices related to littering and environmental pollution by illegal waste disposal. The object of our interest is trash and waste left by people in forests, parks, or the

neighborhood green areas in Lodz, as well as the inhabitants' perception of such places and related practices.

An *illegal dump*³ is a material artifact consisting of items discarded onto land in a site with no license to accept waste. Trash deposited in unauthorized places threatens living beings (Kacperczyk 2021:67–69) and can cause various environmental damages. Since these places are not prepared to contain waste, hazardous materials and other toxic byproducts can infiltrate the surrounding environment, causing water and soil pollution. Therefore, there are significant health risks associated with uncontrolled waste disposal,⁴ which “raises significant

¹ The project was financed by the University of Lodz from the grant Initiative of Excellence—Research University (IDUB), contract No.22/IDUB/DOS/2021.

² After Warsaw, Cracow, and Wrocław, Lodz is now the fourth city in Poland, with a population of 670,642 inhabitants. From the fifteenth to the eighteenth century, Lodz remained a small rural town. However, in the nineteenth century, the city became the main hub of the textile industry in central Europe (Dzionek-Kozłowska, Kowalski, and Matera 2018:526–527). During the systemic transformation in Poland in the 1980s, the textile industry in Lodz collapsed, causing unemployment and pauperization of the working class. Currently, Lodz is an academic, cultural, and industrial center. For the specificity and history of Lodz, see: Liszewski and Young (1997).

³ To name an illegal dump in Polish, we use the term *dzikie wysypisko śmieci* [wild trash dump]), which appears in administrative documents, public statistics, the media, and the common language. In other countries, creating unauthorized dumps is recognized by the names “fly dumping,” “midnight dumping,” or “wildcat dumping” (U.S. EPA 1998:1); other popular terms are: “open dumping” or “fly-tipping” (EnCams 2003).

⁴ Literature indicates short-term and long-term health issues due to environmental pollution caused by illegal dumping.

concerns regarding public health and safety, property values, and quality of life” (U.S. EPA 1998:1). Among other numerous negative consequences⁵ of illegal dumps, the most frequently mentioned are aesthetic criteria translating into a decrease in the value of the land, like the loss of the beauty of the place, ruining the appearance of a neighborhood (EnCams 2003:6), and discouraging economic development.⁶ Attention is also drawn to the cumulative nature of illegal dumping and the need to counteract and remove unauthorized dumps. The Environmental Protection Agency emphasizes, “If not addressed, illegal dumps often attract more waste, potentially including hazardous wastes such as asbestos, household chemicals and paints, automotive fluids, and commercial or industrial wastes” (U.S. EPA 1998:2).

Illegal dumping remains a major problem in many communities around the world. In Poland, at the end of 2018, there were 1,607 illegal dumps reported.⁷ Throughout the year 2018, over 10,500 wild

Asthma, congenital illnesses, stress and anxiety, headaches, dizziness and nausea, and eye and respiratory infections are mentioned as short-term issues. Long-term problems include cancer, kidney, liver, respiratory, cardiovascular, brain, nervous, and lymphohematopoietic diseases (Triassi et al. 2015).

⁵ It is also noted that thrown objects can alter the normal course of runoff and make areas more prone to flooding or erosion, as waste clogs streams, storm drains, and gutters. Sometimes the possibility of spontaneous self-ignition or arson of the accumulated waste and the environmental and material damage related to the fire is also raised. Finally, abandoned items are also a resource of raw materials that could be recycled (*Crackdown...* 2008:7). Other major environmental hazards include groundwater contamination (Breg et al. 2008).

⁶ The North Carolina Department of Environmental Quality (DEQ). Retrieved September 27, 2022 (<https://deq.nc.gov/about/divisions/waste-management/solid-waste-section/compliance-and-monitoring/illegal-dumping>).

⁷ 453 such places were reported in cities (an increase of 11.3% compared to 2017) and 1,154 in rural areas (a decrease of 8% compared to 2017) (the data of the Central Statistical Office

dumps in Poland were liquidated (of which 80.6% were in cities), with the amount of around 25.1 thousand tons of municipal waste collected during these cleanings. For the last four years (2017-2020) in Poland, the total number of wild trash dumps being reported has increased. At the same time, the number of liquidated dumps decreased.⁸ While the number of existing illegal dumps at the end of each year decreased from 2008, the numbers of those liquidated in a year are similar to 2008 when reports on wild trash dumps in CSO started appearing.⁹

Statistics hardly capture this dynamic phenomenon and reflect in the figures the activities of discovering, reporting, and removing illegal dumps. There was a peak in liquidation numbers during 2015-2016, with almost a 60% increase for Poland and over 300% for Lodz, compared to 2008. However, the numbers have returned to the values of the first years of running the reports. “In 2021, fewer illegal landfills were removed compared to 2020 (in 2021—309 units, and 2020—357 units) [trans. AK & RŻ].”¹⁰ Liquidations of illegal dumps in Lodz accounted for from 3.58% in 2020 to 31.78% in 2016 (2008-2020 median = 13.30%) of all reported in Poland. It is a high share compared

[CSO] as of December 31, 2018; see also Adamczyk, Różańska, and Sobczyk 2019:56).

⁸ The data of the CSO Category K9, group G223, subgroup P3196. Retrieved June 21, 2022 (<https://bdl.stat.gov.pl/bdl/metadane/cechy/szukaj?slovo=dziki%20wysypisk>).

⁹ In Poland, there were 3,481 existing illegal trash dumps as of December 31, 2008, and 9,705 were liquidated throughout 2008. In Lodz, only eight dumps existed, and 1,155 were liquidated. In 2020, there were 2,008 existing and 9,972 liquidated dumps (from 2019 +7% in existing and -12% in liquidated) in Poland. In Lodz, there were, respectively, 120 existing and 357 liquidated dumps (in 2019, zero existing and 1,150 liquidated, -69% from 2019 to 2020).

¹⁰ See: <https://www.teraz-srodowisko.pl/aktualnosci/gios-nielegalne-skladowiska-odpadow-11257.html>. Retrieved August 28, 2022.

to other major cities.¹¹ In their *Analysis of the State of Municipal Waste Management in Lodz for 2021*, the Municipal Economy Department of the City of Lodz reported a slight decrease in the number of illegal landfills removed in 2021, yet still reaching the number of about 300.

Despite residents being provided with municipal waste collection directly from the property or by handing it over to the PSZOK,¹² the problem of illegal dumps lasts. Illegal landfills still appear in remote unattended areas, unsecured properties, and places with many access points. The Chief Inspectorate of Environmental Protection estimates that the 'gray zone' of illegal waste dumps may constitute even 30-40% of the value of the entire waste management in Poland. The Department for Combating Environmental Crimes (GIOŚ) informed that in 2021, 424 places where hazardous waste was collected were detected in Poland, and 16 notifications on environmental crimes were submitted to law enforcement agencies.¹³

Collecting data on illegal dumping sites is challenging not only because illegal practices can occur almost anywhere but also because there is no

¹¹ Warsaw: from 3.53 in 2016 to 8.71 in 2008 (Mdn. = 5.63); Cracow: from 3.35 in 2018 to 17.13 in 2013 (Mdn. = 9.53); Wrocław: from 0.07 in 2015 to 0.43 in 2019 (Mdn. = 0.25). Using the number of dumps liquidated allows us to relate the data for cities to the whole country. In the case of the number of existing landfills at the end of the year in large cities, it is often zero, which makes such a reference not possible.

¹² PSZOK (*Punkt Selektywnego Zbierania Odpadów Komunalnych*) is a Point of Selective Collection of Municipal Waste. In Lodz, there are three such points.

¹³ See: <https://www.gios.gov.pl/pl/dla-obywateli/raporty-publicacje-opracowania>, <https://www.teraz-srodowisko.pl/aktualnosci/gios-nielegalne-skladowiska-odpadow-11257.html>. Retrieved August 09, 2022.

single formal registry of such events. Various entities, stakeholders, and institutions (like the Municipal Economy Department, the Chief Inspector of Environmental Protection, or The City Guard) keep their statistics and collect information necessary for their operational work. As a result, "the data is not collected in a consistent way, so it cannot be used to paint a realistic picture of illegal dumping" (*Crackdown...* 2008:7). And more so—to make them the basis for effectively counteracting the phenomenon.

In this article, we aim to reflect on the complexity of the studied phenomenon, seeing it as a social practice that functions in diverse dimensions—legal, administrative, organizational, logistic, spatial, material, discursive, sociological, and psycho-social. Our research is mainly based on qualitative data collected and organized according to the logic of situational analysis proposed by Adele E. Clarke (2005). We believe that following this method opens new insights enabling us to present and comprehend the phenomena under study.

Despite the interest in illegal dumps, few studies have considered this phenomenon a social one (Ichinose and Yamamoto 2011; Šedová 2015; Quesada-Ruiz, Rodriguez-Galiano, and Jordá-Borrell 2018; Jakiel et al. 2019). Qualitative research was especially rare; thus, our work seems to be the first attempt to use situational analysis for this subject.

Methodology of the Study: Situational Analysis and Collaborative Mapping

In this study, we aimed to address the problem of illegal dumps in Lodz by developing a situational

analysis that remained the broadest interpretive and analytical framework. Situational analysis is the methodological approach developed by Adele E. Clarke (2003; 2005; 2019), also in cooperation (Clarke, Friese, and Washburn 2015; 2018), that is rooted in conceptualizations of grounded theory. In this research method, the ultimate unit of analysis is the *situation of inquiry*, and the primary goal is to recognize elements of the situation and understand their relations (Clarke 2005:xxii; Clarke, Friese, and Washburn 2018:xxv). Clarke assumes that the researcher constructs “the situation” empirically by making three unique ecological and relational maps: (I) maps of situations including all the key human and nonhuman elements; (II) maps of social worlds/ arenas (see Figure 6), and (III) maps of positionality along salient analytic axes.

The concept of an arena in relation to social worlds was introduced by Anselm Strauss (1978:124) as “various issues [which] are debated, negotiated, fought out, forced, and manipulated by representatives of implicated subworlds.” Strauss (1978:124-125) pointed out that “larger public issues [as] what to do with pollution or alcoholism” can be analyzed as arenas, which is what we do in this paper.

During a situational analysis, a researcher collects data and analyzes them following the procedures of the grounded theory methodology, generating codes, naming analytical categories, saturating categories with properties, and looking for new samples to compare instances. In parallel, they try to outline relationships between codes and categories and, sketching by hand or with the support of electronic tools, prepare maps representing that relational thinking.

Clarke (2005:xxii) suggests that “situational analysis can deeply situate research projects individually, collectively, organizationally, institutionally, temporally, geographically, materially, discursively, culturally, symbolically, visually, and historically.” Therefore, it “promotes the analysis of extant narrative, visual, and historical discourse materials” (Clarke 2005:xxii).

In situational analysis, mapping is a form of analytical exercise aimed at generating new forms of theorizing that capture the complexities and multiplicities of social life. Making maps is an open-ended, ever-evolving process that “centers on elucidating the key elements, materialities, discourses, structures, and conditions that characterize the situation of inquiry” (Clarke 2005:xxii). The effect should be a “thick analysis” that “take[s] into account the full array of elements in the situation—human, nonhuman, and discursive” (Clarke 2005:xxii).

These procedures were reserved for analyzing and interpreting the overall situation of inquiry. We deployed them in our internal teamwork on **mapping the situation of inquiry** (MSI). However, as researchers, we also actively created the situation, inviting inhabitants to joint work on the project and build—together with us—a map of illegal dumps in Lodz. It was another form of mapping—**mapping illegal dumps** (MID). We asked residents for pictures of illegal waste dumps, and they have been sending us geolocated photos of dumps using their smartphones or a website. To gather data and create the map, we used the Epi-collect5 application (Aanensen et al. 2009).

Thus, by implementing MID, mapping in collaboration with residents who experienced specific

problems daily, we introduced a new element to the situation of inquiry (MSI). That way, not only an additional artifact was created (an interactive map), but a new reference point, a vibrant and rich data layer, was provided in the course of this quasi-participatory research.

Expanding a classic multi-sited ethnography (Marcus 1995), we used various methods of data collecting and analyzing: *building the map* for citizens and with citizens through *participatory smartphone research*; using *visual studies* (Banks 2001; Konecki 2009); using *extant data*; *group interviews*; *individual in-depth interviews* with experts and participants of mapping; personal CAWI for participants of mapping activity; using data from email submissions; *walk-alongs*.

Mapping Illegal Dumps (MID)—Results Overview

The project followed the idea of inviting inhabitants as participants of the study and asking them for a favor of sending information relevant for the scholars to create a map of a particular social problem. Mapping as a collective endeavor, especially addressing some important practical issues of everyday life, has recently become very popular. There are many examples of such pragmatic strategies of using geotagging technology to address practical problems, like creating a map of trees in the city¹⁴ (to protect them and take care of

¹⁴ The founders of the Map of Trees of Lodz (*Mapa Drzew Łodzi*) see trees as a treasure and great ornament of the city, making it a better and healthier place to live. They initiate a social inventory of trees to respect and protect that treasure. They count and describe them and locate their positions on a map. This meticulous inventory provides detailed knowledge of how many trees we have, what species, and what condition, which allows them to plan systemic actions

them), a map of stink¹⁵ (to avoid it) around the utilization plant, or a map of ticks¹⁶ (to protect oneself). In our study, the most visible effect of work was supposed to be a *map of illegal waste dumps in the city of Lodz*. There is a growing interest in such usage of GPS and GIS for online mapping in various academic and practical projects (Currie 2020; Łaszkiewicz, Czembrowski, and Kronenberg 2020; Martini 2020).

The participatory mapping lasted six months, from the 1st of March to the end of August 2022. In this period, 56 collaborators get involved in data gathering. They created 208 records that localized illegal dumps (Figures 1 and 2). The optional description was given for 31% of the records (64 of 208). Collaborators could have sent from zero to four photos. A total of 454 photos were sent to the map. We present gathered data in open access.¹⁷ From the very first record, the results of participants' work are available for those who visit our website.¹⁸ Everyone can access gathered data, browse the records, watch pictures, study the map, or even filter data by categories.

for many years. Retrieved June 15, 2022 (<https://www.mapa-drzewlodzi.pl/>).

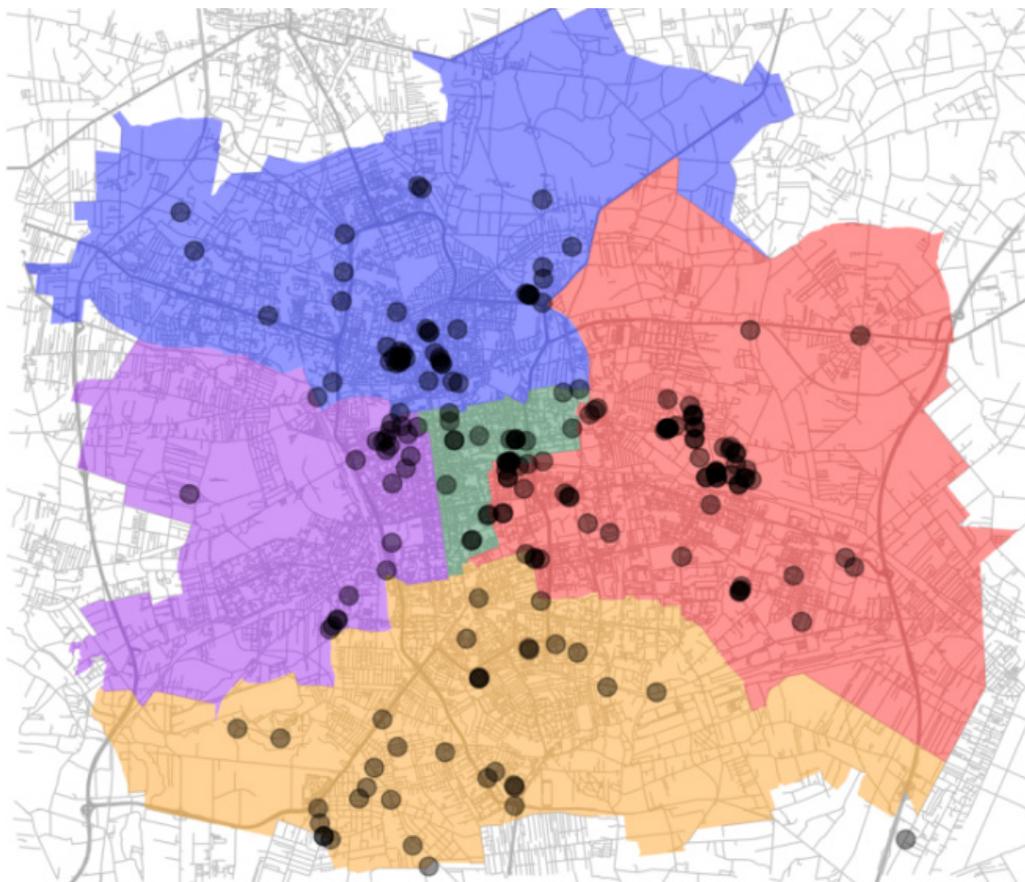
¹⁵ The Map of Stink (*Mapa smrodu*) was created by citizens of Gdansk to solve the acute problem of stinking areas in the city. Inhabitants established an association to control activities of the Utilization Plant in Szadolki. Retrieved June 27, 2022 (<https://www.szadolki.pl/mapa-smrodu/>).

¹⁶ The interactive Map of Ticks (*Interaktywna mapa kleszczy*) addresses the problem of ticks, attempting to indicate where walks can turn out to be dangerous. The map shows ticks that volunteers reportedly found on animals or people. It is real-time updated. Retrieved June 27, 2022 (<https://ciemnas-tronawiosny.pl/mapa-kleszczy>).

¹⁷ Interactive map and table view available at: <https://five.epi-collect.net/project/dzikie-wysypiska/data>.

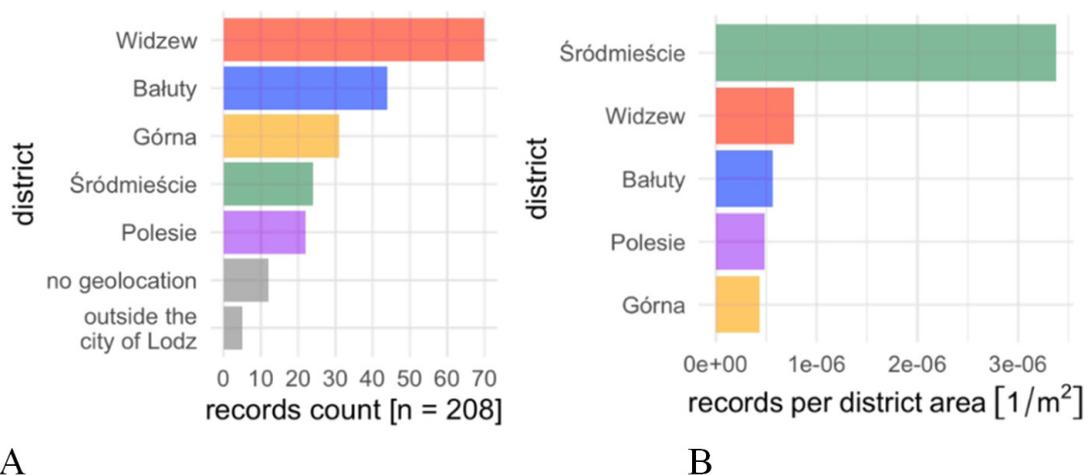
¹⁸ The project's website: <https://www.dzikiewysypiska.uni.lodz.pl/>.

Figure 1. The map of the city of Lodz with a division into districts with illegal trash dumps indicated



Source: Self-elaboration.

Figure 2. Distribution of the records in the respective districts (A); the number of records in respective districts concerning the area (B)



Source: Self-elaboration.

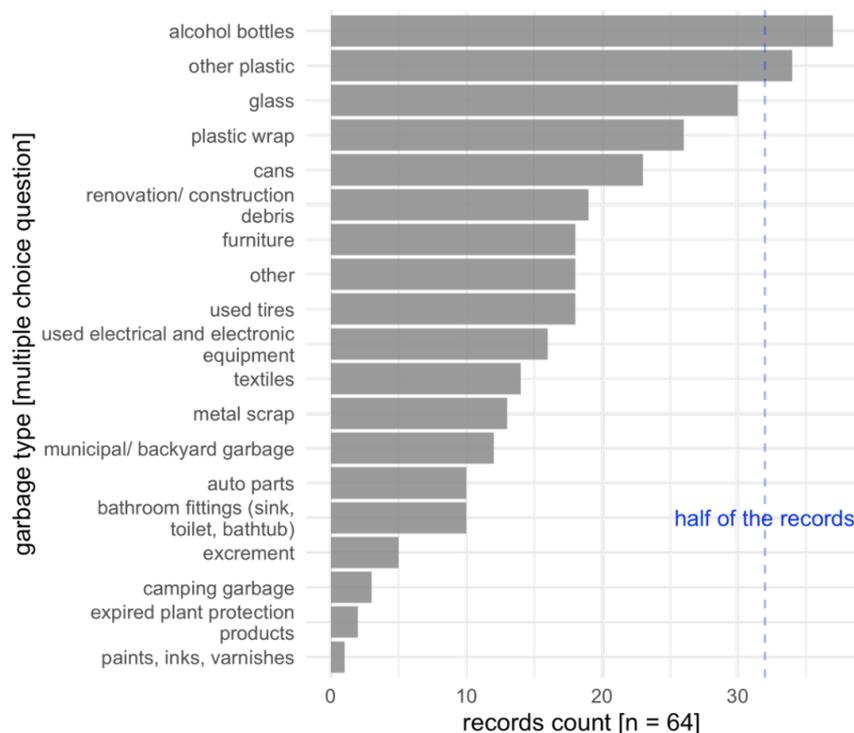
Entries located in all districts of Lodz were sent (Figure 1). The highest number of entries was in Widzew, the largest of the districts (70 of 208 records, 34%). The fewest were entries from Polesie (22). Entries without geolocation were sent (12), as well as entries outside the administrative borders of the city (5; Figure 2A). The highest density of entries concerning the area of the district occurred in the smallest downtown area, Śródmieście (over 3×10^{-6} records per m^2), and the lowest in Górna (under 0.5×10^{-6} records per m^2 ; Figure 2B).

Among other characteristics, we asked the participants to indicate the material content of illegal dumps, that is, the types of garbage found. By far, the most common were alcohol bottles (37 records of 64 described dumps) and plastic (34 records). Those

types of waste were indicated in more than half of the records. Slightly less frequently, glass, foil, or cans were spotted. Nearly 1/3 of the wild dumps found included renovation or construction debris, furniture, or used tires. About 1/5 of the indications were for electro-waste, textiles, scrap metal, municipal, or household garbage. Less than 1/6 of the wild dumps found included bathroom fixtures and car parts. Less than 1/10 of the indications were excrement and camping garbage. The least frequently noticed types of waste were expired pesticides (2) and paints, inks, and varnishes (one record). Note that data were collected using a multiple-response question (Figure 3).¹⁹

¹⁹ The team still works on the collected data concerning the characteristics and location of illegal landfills.

Figure 3. Material content of illegal dumps



Source: Self-elaboration.

First, one should be aware that the created map does not represent the objective picture of all illegal waste dumps in Lodz, but rather a subjective depiction of the space as inhabitants viewed it. To report a place as an illegal dumpsite, one had to come across and spot the dump place, assign it to the illegal dumpsite category, and then report it via the application. That means we missed all the scenes not spotted by inhabitants (i.e., not accessible or just not accessed) and not assigned as problematic. We also missed cases of places spotted by inhabitants and defined as illegal dumpsites, but combined with no will to join the research or with technical problems to accomplish it properly.

Second, the map not only shows particular spots where municipal wastes are illegally disposed of but also visualizes citizens' sensitivity to environmental problems. As we did not precisely define what we meant by the "illegal waste dump," we could have observed how that term worked for the participants. Therefore, besides typical, picturesque piles of garbage, we could have seen photos of just littered, messy places, or uncleaned areas (Figure 4). Apparently, for the residents, trash disposed of there presented a "matter out of place" (Reno 2014:3), problematic enough to be reported.

Figure 4. Illegal dump vs. littered space



Source: Own Epicollect5 database (photos: 2022-04-05 084850 and 2022-03-04 142919).

Given that there is a limited amount of quantifiable information on illegal dumps, and much of the data collected on the subject are scattered and inconsistent, as various institutions collect them for their purposes, we see the idea of mapping illegal dumps (MID) as a valuable contribution to the knowledge of the problematic phenomenon.

Illegal Dump as the Essential Boundary Object

Attempting to describe the situation of inquiry, one should start with researchers' presuppositions. We assumed that responsible waste management occurs when waste circulates in a closed circuit and goes to the designated storage or recycling sites.²⁰ The very fact of the existence of illegal waste dumps in the urban greenery remains a real threat to the environment, but also stands in opposition to *the idea of a circular economy*. From the researchers' point of view, dumps in the forest or urban greenery represent trash that got out of control, eluded the waste management system, and polluted 'nature.' We assumed that if the garbage does not end up in the containers and then into the treatment installation, it is 'outside the system' of proper waste processing. We included this point of view in the outline of our study.

²⁰ This standpoint represents the discourse of a *circular economy* promoted by the European Union legislation. Since 2013, the EU has been redefining environmental protection policy, introducing, in 2018, the Circular Economy Package that aims to reduce waste generation by maintaining resources as long as possible in the economy. The concept of a circular economy is focused on solving waste issues, but also covering the entire economic sphere regarding how we extract raw materials and produce things, how we use them, and what will happen to them after the use cycle. Circular economy strictly regards the way of designing, managing, and processing products that will someday become waste. It is worth remembering that even though the idea of a circular economy has nowadays become a standard, having high social acceptability, it is still a concept made in a particular socio-economic and environmental context and for a specific purpose. However, starting the project, we shared the belief that in a world full of trash, where waste contributes to the destruction of the environment, a circular economy is a wise solution that should be treated as something worth aspiring to.

The project concerns social practices related to littering the natural environment. The object of our interest is trash and waste left by people in forests, parks, or the neighborhood green areas in Lodz, as well as the inhabitants' perception regarding such places and related practices. Ultimately, we would like to create an interactive map of such 'wild' dumps (littered places, abandoned waste, illegal dumps, and debris in the wild) in cooperation with the inhabitants. That would be a **map of Lodz garbage that remains outside the waste management system.** [from the first description of the project, 2021]

Just before we started the data-gathering stage, the chief of the project, Anna Kacperczyk, was invited to City Hall for a meeting with the vice president of the city, who expressed her interest in the research and asked how they could help. After this invitation, we sent her secretary the precise information about our research.

During the meeting, the vice president and the director of the municipal department had printouts of our project description with handwritten notes on them. Looking at me with a little reserve, the director instructed me that we should not use the phrase **"this garbage is out of the system."** She emphasized that we cannot write something like that publicly because, in fact, illegal dumps **"are in the system."** They are included in the waste management procedures since the citizens pay for unauthorized dump treatment in their waste fees. The special fund is created to cover the costs of illegal dumps' disposal from citizens' contributions. [field note, January 27, 2022]

In Poland, *The Act of Maintaining Cleanliness and Order in Municipalities* (September 13, 1996) is in force; thus, every municipality has to address the problem of illegal dumps. In 2021, the Municipality of Lodz city spent approximately 1,5 million PLN for removing

waste from illegal dump sites. From this administrative, legal, and bureaucratic standpoint presented by the municipality, the illegal dumps have become a 'normal' part of waste management procedures.

The main difference between our vintage points was the definition of illegal dump, which became a **boundary object**²¹ here. While we saw illegal dumps as something that intrudes on nature and presents dangerous leaks in the waste treatment, the municipality seemed to see those as a part of a calculated waste management system. Furthermore, the idea of the system differed here. For the municipality, the 'system' meant a configuration of administrative decisions made in City Hall regarding communal waste (contracts, logistics of garbage collection, cooperation with companies collecting waste from residents, et cetera). Saying that our waste management system is leaking was like accusing the managers of this system.

After the meeting and exchange of thoughts, our team decided to change the description of the research not to provoke tensions between us, the researchers, and City Hall. We also altered the forthcoming press releases that described our project, and instead of the notice about "a map of Lodz garbage that remains outside the waste management system," we named them "a map of Lodz garbage that is in places not intended for their storage."²²

²¹ Susan L. Star and James R. Griesemer (1989) developed the concept of the "boundary objects" to capture "things" that are at a critical moment at the boundaries of worlds, at the junction points, or the place of transition between them. The boundary objects can be treaties between countries, software programs for users of differently "located" computer worlds, and even ideas or concepts themselves (Clarke 1991:133). The basic social process here consists of the fact that the object is "read" depending on the needs or requirements placed on it by numerous social worlds that meet around the border object and argue about its definition (Kacperczyk 2016:40).

²² This is in line with the definition used by the Central Statistical Office in Poland, classifying an illegal dumping site in the category of municipal waste and defining it as "a place not intend-

Subjects Involved in the Situation of Inquiry: Journalists

The interesting question was, why were we invited to the office of the vice president of the city? We owed that to the journalists. Since we were vitally interested in having contact with residents of our city and sharing information about our project, we never refused contact with press and radio journalists. During the project and just before it started, we gave 23 statements of short interviews for local radio stations or daily newspapers.

The attitudes of the journalists ranged from positive to enthusiastic, but sometimes how they presented information about our research created some tensions and exaggerated expectations. The day after the first interview, in which we presented the idea of our project, its aim, and our tools, we found our statement in the recognizable journal under the suggestive title "No more wild dumps in Lodz? Scientists are waiting for photos of such places" (Gontarek 2022 [trans. AK & RŻ]). That put us in the position of an entity that could, or should, introduce some positive changes concerning illegal waste dumping and brought with it many expectations regarding the final effect of our work. Meanwhile, we had a much lower opinion of our abilities in this field. We were only a few people with few resources, and our study was meant as a pilot, so we were under no illusion that we would make a profound change during or just after summarizing the results. But, recognizing expectations expressed directly or indirectly by the

ed for waste disposal, on which municipal waste is abandoned [trans. AK & RŻ]." In the English version, it reads: "unauthorized site, on which municipal waste is dumped." Retrieved October 23, 2022 (<https://stat.gov.pl/en/metainformation/glossary/terms-used-in-official-statistics/2412,term.html>, <https://stat.gov.pl/metainformacje/slownik-pojec/pojecia-stosowane-w-statystyce-publicznej/2412,pojecie.html>).

people we contacted, we started negotiating our role in the project. Who are we in the research? What are the limits of our activities? What do we expect from ourselves in the study? We spent hours discussing these issues. Some of the discussions were induced by the participants of our study, who expressed their views on our position and role.

Who Can Solve the Problem?

Although the Epicollect5 application was supposed to be the main method²³ of submitting photos and geolocations, some residents of Lodz decided to communicate with us via email. We received the first email submission on the matter in February, a month before we released a map. And they continued in September after the formal completion of data collection. Since the start of the mapping in March 2022, we have received a dozen emails from residents of Lodz. In addition to photos and geolocation or addresses, email senders expressed their negative emotions concerning the problem. We received requests for intervention, sometimes desperate pleas for help.

About a week ago, in our housing estate, next to the cooperative's garbage can, someone threw a pile of various rubbish—a wild dump. Pictures attached. You want to cry...I am asking for help, tips, anything :([email sent to the project's mailbox, April 17, 2022]

Some messages were addressed simultaneously to the researchers, the City Guard, and the Municipal Office. That led us to conclude that we have been

²³ Potential project participants could have communicated with us via the website www.dzikiewysypiska.uni.lodz.pl, where we posted information on how to download the Epicollect5 application and how to use it. Our recommended way of reporting illegal dumps was by uploading photos via the app. However, we have also provided an email address for contact: dzikiewysypiska@uni.lodz.pl, and over a dozen people contacted us that way.

seen as an entity that could have contributed to solving the problem of wild dumps.²⁴

I have a question, is it planned, thanks to your research, to report this state of affairs to City Hall or other cleaning authorities? I wrote a letter to City Hall on this matter. Last year it resulted in a short-term improvement in the situation because some of the rubbish has been cleared away, but it is still in arrears. Of course, I have reported the matter this year as well, but so far nothing has been done. [email sent to the project's mailbox, March 31, 2022]

Individual interviews showed that map co-creators were motivated to participate in our study because they wanted the problem of the illegal dumps to be solved. During one of the group interviews, our framing of the wild dumps phenomenon as 'interesting' has even been met with objection—for an interviewee, it was an "unwanted" phenomenon, not interesting at all. Some participants described their struggle when they had been trying for many years at various institutions to remove or prevent wild dumps, especially near their place of residence. They saw our research project as a new hope to solve the problem. We also learned that "research for research's sake" was rather negatively perceived by participants. Some participants presented particular strategies for sharing data on illegal dumps making subsequent entries on the map depending on what was happening with the previous ones and, that way, checking the effectiveness of our study.

Remigiusz: Are there any such wild dumps that you know of in your area that you haven't sent us?

²⁴ We were responding to the submissions with thanks and an invitation to co-create a map via Epicollect5, but realized that the senders were unlikely to do it. We decided to post the submissions on the map under a separate ID, *email_dzikiewysypiska*, and should email senders call us to action, we would send an official report to the City Guard or a proper Municipal Office department.

Marek²⁵: Yes. I sent only one, only one.

R: I see, and may I ask why only this one and those others you know not?

M: I thought that if this one turns out to be effective, I'll send another one [pause] so far, the garbage is still lying there peacefully.

R: Effective in the sense that the garbage won't be there [will be removed]. I see.

M: Yes, because I thought that, I had no knowledge that this was scientific research. I thought that it simply works in such a way that some organization, a group, such places of garbage will be reported to the Municipal Office, to the appropriate departments, and using the fact that it is an institutionalized group, it will more easily get the effect that we would all like. [Marek, IDI, June 29, 2022]

They thought that the purpose of the project was to put pressure on the local authorities and get the dumps cleaned up. We were aware that our project might be treated as leverage for a change, and even expressed it in one of the answers to our email receiver.

It seems to me that a study like this gives a chance to collect in one place in a transparent and publicly accessible way the voice of residents who do not agree with such a state of our common space. Therefore, we hope that during these few months of the project, the participants of the study—through their activity—will be able to create some pressure leading to positive changes. We very much hope that will happen. [email answer from Anna Kacperczyk, April 01, 2022]

As part of the recruitment strategy for mapping, we referred to our possible cooperation with local authorities. Additionally, on the project's webpage and Epicollect5 platform, we stated that data making up the map are available to the public, including those involved in

²⁵ Name changed.

liquidating wild dumps, and are used by researchers at the University of Lodz to make statistical summaries. The summaries can be provided to the media and local authorities, including the Municipal Office.²⁶ We, therefore, expected that the motivation for participating in the project would be a desire to contribute to solving the problem. However, we saw our role rather as researchers who provide data collection strategy (building the map), insights, and the understanding of the problem at hand, and not problem solvers. That way, we had to negotiate our role as the entity primarily aimed at knowledge production. And, although we did not move away from solving the problem of illegal dumps—its final solution was equally important to us—we understood that it would not only come about by reporting the dumps and cleaning them up. We comprehended that we had to look at the process of deleting unauthorized dumps.

Reporting Illegal Dumps

Reporting an illegal dump is not a simple task. Primarily because there is no universal deleting procedure. For Lodz residents, we identified at least 40 particular paths to report wild dumps within ten entities (see Table 1).

²⁶ We informed the participants that “our data are publicly available on the www.dzikiewysypiska.uni.lodz.pl project website—both for city residents, officials, and city guards. During previous talks with the services responsible for cleanliness in the city (both at the Municipal Economy Department of the Municipal Office of Lodz and the City Guard), we were assured that these services were interested in the results of our study” (email answer from Anna Kacperczyk, April 01, 2022). Getting an answer that, “data availability and ‘ensuring interest’ in research are not enough. All units responsible for the cleanliness of the city should be informed about the alarming condition of our housing estates and other parts of Lodz. Rubbish is lying around all the time, and nobody is interested in it. Please notify City Hall as soon as possible. System solutions are needed” (email answer in the project's mailbox, from participant, April 04, 2022). Furthermore, that possible cooperation was not only a part of recruiting rhetoric but also came to fruition. We interviewed the City Guard authorities several times and provided them with mapping data, and obtained administrative data regarding the scale of dumping perpetrators' identification.

Table 1. Possible ways to report illegal dumps for Lodz residents

1.	City Guard (<i>Straż Miejska</i>) ¹
	a. Emails: sekretariat@strazmiejska.lodz.pl, ogolnomiejski@strazmiejska.lodz.pl, specjalistyczny@strazmiejska.lodz.pl
	b. Facebook page: https://www.facebook.com/strazmiejskalodz/ (not indicated whether to use Messenger or another feature of the platform)
	c. Phone: 986
	d. SMS: 600 480 986 (for people with hearing loss or hard of hearing)
2.	Police
	a. Mobile application <i>Moja komenda</i> (My Police Station) ²
	b. Web form <i>Krajowa Mapa Zagrożeń Bezpieczeństwa</i> (National Map of Safety Threats) ³ [category “wild dump” included]
	c. Email: dyzurny@lodz.ld.policja.gov.pl
	d. Phone: 997 ⁴
	e. SMS: 603 392 438 (for people with hearing loss or hard of hearing)
	f. Contact with the district police officer via email, mobile, or office phone. ⁵
3.	Chief Inspectorate of Environmental Protection (GIOŚ, <i>Główny Inspektorat Ochrony Środowiska</i>) ⁶
	a. Web form: https://www.gios.gov.pl/pl/zglos-interwencje-formularz [category “wild dump” included]
4.	Regional Inspectorate for Environmental Protection (WIOŚ, <i>Wojewódzki Inspektorat Ochrony Środowiska</i>) ⁷
	a. Web form: https://www.wios.lodz.pl/Formularz_kontaktowy,166 [category “wild dump” not included, report topic as an open question]
	b. Email: awarie@wios.lodz.pl
	c. Phones: 721 111 213 (24-hour number), 42 633 33 43 (during office hours)
5.	Within the City Hall of Lodz (UMŁ, <i>Urząd Miasta Łodzi</i>)
	a. Lodz Resident Contact Center ⁸ (ŁCKzM, <i>Łódzkie Centrum Kontakt z Mieszkańcami</i>)
	i. Web form: https://lckm.uml.lodz.pl/Issue/New [category “wild dump” included]
	ii. Email: lckm@uml.lodz.pl
	iii. Phone: 42 638 44 44
	iv. In-person report: at ŁCKzM office (Lodz, Piotrkowska 110) or at Information and Clerical Points of City Hall (five locations) or Clerical Points (two locations)
	b. Municipal Waste Management Department (WGK, <i>Wydział Gospodarki Komunalnej</i>) ⁹
	i. Emails: czystosc@uml.lodz.pl (<i>czystość</i> means cleanliness), smieci@uml.lodz.pl (<i>śmieci</i> means trash), komunalny@uml.lodz.pl
	ii. Phones ¹⁰ : 42 638 50 00 (<i>Zielona Linia</i> —the Green Line for reporting wild dumps); 42 638 54 53, 42 638 49 73, 42 638 49 22, 42 638 49 50, 42 638 52 36 (City Cleaning Division [<i>Oddział Oczyszczania Miasta</i>]); 42 638 59 11, 42 638 48 97, 42 638 49 84, 42 638 49 04, 42 638 53 53 (Waste Management Control Division [<i>Oddział ds. Kontroli Gospodarki Odpadami</i>])
	c. Road and Transport Authority (ZDiT, <i>Zarząd Dróg i Transportu</i>) ¹¹
	i. Webpage form (same as ŁCKzM): https://lckm.uml.lodz.pl/Issue/New [category “wild dump” included]
	ii. Email: zdit@zdit.uml.lodz.pl
	iii. Phone (same as WGK): 42 638 50 00 (The Green Line).
6.	Interpellations and inquiries of Lodz city councilors
	a. In-person or letter submission of paper document asking a particular councilor for interpellation or inquiry regarding an issue—possibly a wild dump of which we write more below
7.	NGOs
	a. TrashOut mobile application: https://www.trashout.ngo/ , a global project owned by Slovakian NGO
	b. BrudnoTu mobile application: https://brudnotu.fundacjabos.pl/ , Polish project by Bank for Environmental Protection Foundation (<i>Fundacja Banku Ochrony Środowiska</i>), which claims reports are automatically forwarded to the relevant local government.

Note: For footnotes in the table, see pp. 203-204.

Source: Self-elaboration.

All the mentioned government institutions also accept reports via registered post. In our research, we also learned that residents report wild dumps to employees of companies cleaning their houses, to the administration of their properties, and to various neighborhood councils.

The example of interpellations and inquiries of Lodz councilors clearly illustrates the administrative complexity of the process of reporting and further processing a report of a wild dump in the city. A resident usually visits councilors on duty in person and makes a request for an interpellation or inquiry. The councilors, if they accept the request, become an advocate for the issue raised by the citizen. They forward interpellations and inquiries to the President of Lodz, Vice Presidents, and other entities. All these entities are legally obliged to respond (but not to act). The documents are easily accessible online.²⁷ Currently, there are 28 interpellations or inquiries regarding illegal dumps. The first one is dated March 14, 2007, and the last one is May 16, 2022. At the beginning of the analyzed period, the content of the documents embraced more questions and attempts to determine who was responsible for the area and the particular dump. Over time, there were more and more demands to clean up, renewal of these demands, and further calls to accept responsibility. Sometimes, the same locations are mentioned repeatedly. The example of the interpellations and inquiries of councilors shows the persistence of the problem of wild dumps. During the analysis of those documents, we also learned about other institutions not mentioned above, but involved in the arena—to which the existence of wild dumps should not be reported, but which may be responsible for cleaning

it up if it is located on their land. These include, for example, the Lodz Municipal Forestry (*Nadleśnictwo Łódź*) and the Municipal Sports and Recreation Centers (MOSiR, *Miejski Ośrodek Sportu I Rekreacji*). Additionally, various entities are negotiating their relationship with the wild dump by arguing over responsibility for and financing ‘dump activities.’ Those negotiations mainly concern who is to clean up and dispose of waste.

Such a large number of reporting pathways seems to be a positive solution, giving the average notifier more options. In practice, however, it can create confusion. The more places where a problem can be reported, the more responsibility for solving it is dispersed. That shows the administrative complexity of the problem of illegal dumps.

The View from City Hall

The municipal waste management system is set up as a part of fees paid by property owners. Theoretically, 100% of residents are covered by the municipal system—they are obliged to pay a fee for managing municipal waste, the so-called “garbage fee.” Historically, the presence of illegal landfills and dumps was the most important justification for communities to take over the management of municipal waste. The introduction of the obligation to manage municipal waste by the commune was mainly to prevent the creation of illegal dumps.

The City of Lodz has an annual budget of around 2 million PLN to spend on cleaning illegal dumps and presents full readiness to deal with them. Asked about a decisive criterion of which illegal dumps to choose to clean up and which to leave as they are, the official in the Waste Management Control Division answered:

²⁷ <https://bip.uml.lodz.pl/wladze/rada-miejska-w-lodzi/interpelacje-i-zapytania-radnych/>. Retrieved April 27, 2022.

We execute all that is. At the moment, we have not yet said that we will not take a wild dump. No. Not everything we get as an illegal dump is classified as an illegal dump. For example, if somewhere in front of a single-family property there are bags with grass, and it is reported as a “wild dump,” we do not qualify it as a “wild dump.” Because it should just be picked up by the company that collects the waste. However, for some reason, it really wasn’t, right? Such situations happen...We have not refused to clear any illegal dumps yet. We do not even have the option to refuse because the commune is obliged to clean it up under the law, right? There’s no way we’ll say we won’t clean it up. We have the resources. We have to do this. [interview in the Department of Municipal Economy, February 10, 2022]

However, with that enormous fund, the city has many internal limitations. Mainly because it can operate freely only in municipal areas, and outside of them, its agency drops almost to zero. Unfortunately, many illegal dumps are located in areas that do not belong to the commune, that is, are privately owned. Also, lands of unclear legal status (unknown to whom they belong or whose owner is not interested in it) are places conducive to the emergence of illegal dumps. The Municipal Economy Department estimates that approximately 30% of illegal dumps are situated in non-municipal areas, and the municipality cannot use public money to clean up private properties. In such cases, the Municipal Economy Department will refer the matter to the City Guard, which will try to identify the perpetrator who can be held accountable and forced to clean up the area at their expense. If it is impossible to identify the perpetrator, the obligation to collect abandoned waste rests with the landowner.

According to the regulations, the landowner is responsible for the disposal of waste, as well as for the sanitary and orderly condition of a given area. Since there are plenty of landowners in Lodz, many subjects are also responsible for proceeding with illegal dumps. Apart from the private owners of plots, part of the area is the responsibility of the City Greenery Authority, forest areas are subject to the State Forests, and the Road and Transport Authority is responsible for roadside lanes.²⁸ If an illegal landfill occurs in an area that does not belong to the commune, the Municipal Economy Department cannot pay for its removal.

Well, we cannot allocate funds to finance the cleaning of an area not ours because we have public finance discipline. We cannot spend the money...This is a huge problem. What can you do about it? It often stings the eyes...these are the dumps that we say: no, we can’t just [clear them up]. These are not landfills that we don’t want to remove, they are landfills that we just can’t clean up. [interview in the Department of Municipal Economy, February 10, 2022]

Thus, the ‘inappropriate’ location of an illegal dump (meaning: in areas not belonging to the commune) prevents the city authorities from operating effectively. Another problem is the ‘inappropriate’ content of the unauthorized dump.

²⁸ For example, in the area of the Łagiewniki Forest and its buffer zone, the responsibility is divided into at least four units: the Lodz Municipal Forestry, covering areas of municipal forests; the Municipal Sports and Recreation Center, in the areas administered by the Arturówek Tourist House (about 12 ha); the Delegation of the City of Lodz Office Lodz-Bałuty, in the areas of roads managed and on real estate owned by the city, for which no administrator has been established; and the Road and Transport Authority in the road lanes of managed streets (source: the response of the Deputy Mayor of the City, Marek Michalik, of May 16, 2008, to the interpellation of the City Councilor, Bartosz Domaszewicz on the issue of illegal dumps in Łagiewniki Forest [https://uml.lodz.pl/files/bip/public/rada_miejska/interpelacje/5/1306.pdf, retrieved April 27, 2022]).

Figure 5. Illegal dump containing tires



Source: Own Epicollect5 database (photo:2022-03-01 181122).

In their *modus operandi*, the municipality clearly distinguishes *municipal waste*, collected within the municipal system, and other *non-municipal waste*, which the commune is not responsible for, nor does it take part in their collection. *Non-municipal waste* is generated as a direct consequence of specific economic activities conducted by entrepreneurs in various industries. The Voivodeship Inspector of Environmental Protection is responsible for the treatment of such kinds of waste. The problem starts when the illegal dump consists of the remains from car repair workshops, tires, debris, or other waste classified as *non-municipal* since they have been created as part of entrepreneurial activity. Illegal dumping of used tires especially is a common problem, not only in Poland (U.S. EPA 1998:6). The municipality has no legitimation to remove these sorts of things. The tension can arise here on the line between the obligations of the Voivodeship Inspector of Environmental Protection and the Department of Municipal Economy. When the rubbish reported as an illegal dump is the result of economic activ-

ity, the municipality cannot proceed with it. The Chief of the Waste Management Control Division explained that referring to the case of abandoned tires:

This issue, personally, hurts me the most; it just stings because I know that it is not...The residents' money is used for this purpose [removal of illegal dumps], and this is not waste from residents. Because we have already started collecting these tires from the residents, right? Because that is really a problem. The resident has nothing to do with it... it is evident...well, one resident did not bring it. One resident will not bring a hundred tires, right? Well, because they are expensive [to utilize], that's why they are thrown away. [interview in the Department of Municipal Economy, February 10, 2022]

Deciding what is and what is not municipal waste can sometimes be problematic. Under Polish law, the concept of municipal waste is defined as "household waste," that is, waste generated by natural persons through their activities related to satisfying living needs carried out as part of a "household."²⁹ They can also be produced out-

²⁹ According to the Directive (EU) 2018/851 (Article 1) 2b. "municipal waste" means: (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste from electrical and electronic equipment, waste from batteries and accumulators, and bulky waste, including mattresses and furniture; (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households. Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks, and sewage network and treatment, including sewage sludge, end-of-life vehicles, or construction and demolition waste. This definition is without prejudice to the allocation of responsibilities for waste management between public and private actors; 2c. "construction and demolition waste" means waste generated by construction and demolition activities (Directive [EU] 2018/851 of the European Parliament and the Council of 30/05/2018 amending Directive 2008/98 / EC on waste).

side the household as long as they arise directly in connection with satisfying the living needs of natural persons and are similar to household waste in quantity and composition (Górski 2021:27-28).

The Municipal Economy Department must act according to the law; however, officials have some room for interpretation and making their decisions during classification. Apart from the clear cases, such as the identification of hazardous waste (e.g., asbestos) or the evident origin of waste from economic activity, there are also illegal landfills with an unclear composition that are difficult to classify unambiguously. Then recognizing waste as municipal—even if there are some doubts about it—allows for removing that waste using municipal funds. “Counting waste as municipal will include it in municipal waste management systems” (Górski 2021:30 [trans. AK & RŻ]). Therefore, sometimes officials, suspecting that a given waste may not be purely municipal, decide to classify it as such to be able to dispose of it.

City Guard and Eco Patrol

Many entities are involved in the arena of illegal waste dumps (Figure 6). Not being able to discuss them all, we will try to introduce some of the most important entities on the scene and describe their relations instead. The leading actor here is the municipality, with its departments dedicated to waste management. Equally important is the position of the City Guard and their special section named Eco Patrol, whose mission is to strive for a clean environment.³⁰

³⁰ Eco Patrol of the City Guard, established in 2014, carries out controls related to waste incineration and illegal dump investigations.

For the City Guards, the problem of illegal dumps is related to a broader issue of waste management. They perceive the abandonment of garbage in forbidden places primarily as the final effect of what is happening earlier in the process of waste management. Firstly, they pay attention to the fact that

there is a large group of people in our city who do not have these garbage declarations³¹ submitted...We know from practice and, the municipality knows, that there are big distortions and understatements here. Hence, for example, different cities try to seal this system in different ways. With us, it is currently happening by combining data on water consumption with the price of rubbish. Before that, only a declaration based on the number of people living on the farm was valid. [interview with the Chief of the Eco Patrol, February 18, 2022]

Thus, city guards always check that declaration when inspecting properties. Having access to the municipal waste declaration database, they can notify the municipal office about the results of controls. Afterward, the municipality continues its activities. The owner can get an administrative penalty and overdue fees from the office (from the city guard independently a caution or a fine).

Information about illegal dumps reaches the city guard through several routes. They can search for dumps using drones and camera traps or just by walking in the field. Moreover, they get cases for clarification from City Hall. However, most often, they are continually informed about the locations of illegal waste by residents.

³¹ The contract with the municipality for garbage collection.

There are so many reports, so many to the hotline and email reports here, that we go according to the order in which the reports are received. And there is also a big problem making it on time because we are not able to do it, there is a notification, we get in and go. It is simply not realistic because there are not enough people, and there are three times as many notifications, right? [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

Suppose a guard finds in an illegal dump any element allowing the identification of the perpetrator, such as a license plate, an invoice, or a bill. In that case, it is a 'starting point' for further explanatory activities. Usually, identifying the offender is very time-consuming and may take up to a year.³² However, a penalty notice does not solve the problem.

Because we care, not so much about criminal sanctions, you know, these criminal sanctions, of course, they are, and it is the guard who decides which ones will apply there. But, we want this area to be cleaned—for this person to clean up. because a ticket will not do the trick. A site needs to be cleaned up. [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

The detection of this type of misdemeanor remains relatively weak. According to the data of the City Guard, out of 163 spots of illegal dumps detected in 2019-2022, the perpetrator was identified only in 23 cases (14%). In 140, the wrongdoer was never caught. Of the 163 discovered illegal

³² According to the data provided by the City Guard in Lodz, regarding the period 2019-2022, the time of the proceedings, that is, determining the perpetrator of the misdemeanor, may take from several hours to several months. The longest lasted 11 months. Most often, however, it was from one to two months.

dumps, 29 were cleared up by the landowner; 18 were removed by the perpetrators; and, in 18 cases, the area was handed over to the city's institutions.

In the case of an illegal dump located in the commune, the city guard does everything to reach the perpetrator and oblige them to clean up. When they exhaust all possible measures and do not find the perpetrator, the case is referred to the WGK (Department of Municipal Economy), and the city, as the landowner, removes the dump.

If a dumpsite is located on a private plot, its owner is responsible for the waste left there, even if they did not put it there themselves. According to law regulations,³³ the landowner must bear the costs of waste disposal since "the property owner is obliged to take care of their property also in such a way as to prevent illegal activities from the point of view of waste regulations, including waste collection in a place not intended for this purpose" (Górski 2021:134 [trans. AK & RŻ]).

The scopes of responsibility for illegal dumps of the City Guard and City Hall overlap where the case concerns a commune area, and they split when it comes to private plots or land belonging to entities other than the municipality. Also, the guards' narratives are quite different from the municipal ones

³³ Art. 3 ust. 1 pkt 19 ustawa z 14.12.2012 r. o odpadach (Dz.U. z 2020 r. poz. 797 ze zm.) [Art. 3 sec. 1 point 19, the Act of December 14, 2012, on waste (Journal of Laws of 2020, item 797, as amended)]. The Waste Act states that "the owner of the territorial land is the owner of the waste on the property." That means "in the case the actual owner of the waste is unknown, the obligations of that owner are borne by the ruler of the territorial land" (Górski 2021:133 [trans. AK & RŻ]). So, "if the owner of the property has not collected the waste on his own and is unable to indicate the real owner, then he is responsible for this waste as the owner" (Górski 2021:134 [trans. AK & RŻ]).

in that regard. Creating illegal dumps is seen by the City Guard primarily as a misdemeanor. Their accounts focus on the practices of the perpetrators, on the attempt to reconstruct the way the offender operates, and indicate some favorable circumstances and characteristic conditions of actions.

Well, I think these are such uninhabited places, undeveloped so that no one would just catch them. Bushes, some wooded, such a secluded place, oh! Or those where it's easy to just drive up, deposit, and quickly disappear...Well, as a rule, someone always comes there by car. [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

City guards also pay attention to the situational context of the offenses they pursue.

Because these are usually some deserted areas, where there is a piece of forest, with trees and some bushes, so there are good conditions to throw this garbage away...these are usually more secluded, bushy places, right? So, a nice way to get it under cover, I don't know, evening, night, and throw it out there. Although, some [of them] are brave and throw out during the day. [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

Reconstructing the perpetrator's mentality and motives allows us to situate them in the field of understandable practices, having some reason and internal rationality—despite their unacceptability from the normative point of view.

Someone has money, let's say he lives in a house. He could honestly declare that six people live with him, and he declares two people, produces more rubbish, and we all pay for it, then there are raises. Or this surplus [of waste], so that it does not ap-

pear, he takes it somewhere, right? [interview with the Chief of the Eco Patrol, February 18, 2022]

All the time during the controls, it turns out that people are just cheating on the number of people reported, or there is no declaration [signed] at all—all the time, it goes out somewhere during the controls. [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

The accounts of the city guards provide another form of 'normalization' of illegal dumping here as they present this activity as somehow unavoidable. Just as there are people who break the law in various spheres, they also dispose of their trash where they are not allowed to do so. Thinking about the phenomenon of illegal dumps that way gives the view of an unsolvable problem. Just like in the case of any other kind of crime being the subject of the work of guards or the police, it seems that we will not get rid of it completely. There will always be those who break the law and the rules. We can, perhaps, only think of some limitation or diminution of this phenomenon, but not of eliminating it.

Relations

The relationship between the Department of Municipal Economy and the City Guard in the field of combating illegal dumps seems to be symbiotic. The City Guard is indispensable for the Municipal Office to conduct proceedings, search for perpetrators of illegal dumps, and impose penalties on them or bring them to court. In addition, the City Guard has the right to enter the property, check whether a given resident has a signed waste contract and pay the fee for garbage collection, as well as to inspect the vehicle registration numbers in

the CEPiK³⁴ database, and has a statutory access to the PESEL³⁵ database. The municipality does not have these powers, but has direct access to data on waste declarations of residents and other entities. It is the Municipal Office that most often initiates inquiries and cases, which are then handled and resolved by the City Guard.

Both sides complement each other, emphasizing that they have excellent relations. “We cooperate very well with the City Guard, especially with a special unit established to solve these problems, Eco Patrol. They are doing a great job,” the chief of the WGK (Department of Municipal Economy) assured.

In turn, Eco Patrol confirms that they exchange data on reports with WGK on an ongoing basis. “We are up to date with everything. If there is any urgent intervention, it is marked ‘urgent,’ or we contact by phone, and this is the first one,” says the Head of the Eco Patrol, and his deputy confirms: “Yes, they have a lot of reports from residents, and they send them later to us to simply control it. We have very good cooperation. So, like us [to] them, so they [to] us.”

In that coherent setting, our investigation could have been a slight disturbance or a new element to the established relationships. As researchers (with the people we have drawn into mapping illegal dumps), we have become, in a sense, a new subject in this arena—probably, from their point of view, a subject not needed when it comes to the problem of fighting illegal dumps. Perhaps that is how the

statement of the head of WGK, who commented on our mapping project as interesting, should be interpreted. However, the head immediately made a reservation that they, that is, the Department of Municipal Economy, have a very well-developed system of reporting illegal landfills—people who call provide them with information, send them photos. “We know everything. We know exactly the map of wild dumps in Lodz. We know where the wild dumps appear and where they will reappear after being cleared.”

Homeless People in the City

While wandering around the neighborhoods, we sometimes came across places that, at first glance, looked like a wild dump, but a moment of closer inspection was enough to guess that it was rather a place of someone’s dwelling. A kind of separation from the outside world, a place to sit or lie down, hanging clothes, cardboard boxes, blankets, food leftover—a colorful disorder typical of abandoned things.

Officials are aware of such cases when homeless inhabitants of the city transformed some fragments of space for their needs, using old furniture to make their living place more bearable and a bit more convenient (see: Krajewski 2012:9; Martini 2021:57).

Sometimes, to be honest, we don’t want to take it away from them. But, always, we take it to the winter, just to discourage those people from staying in this place, right?...We have an arrangement with the City Guard that when they notice, we just take it for the winter so that these people don’t get frozen there. But, there are places where we have these sofas, some tables. Well, these places are arranged for their everyday stay. Here, it also seems to me that

³⁴ CEPiK is an abbreviation for the Central Register of Vehicles and Drivers (*Centralna Ewidencja Pojazdów i Kierowców*).

³⁵ A PESEL is the national identification number used in Poland.

there is no point in fighting it because if we take it from them, they will come here anyway, there are already such places. A bit like a fight with windmills. Besides, I don't know, I kind of know, I just understand these people. [interview in the Department of Municipal Economy, February 10, 2022]

Similarly, while commenting on such situations, the city guards do not see homeless people as contributing to creating illegal dumps.

But, they usually don't... Because they do it for some reason, for themselves and their convenience. It's hard to call it an illegal garbage dump, right? Unless, I don't know, someone will chase them away, and what they leave behind begins to look later like a dump as it decays. Maybe it looks like a small rubbish dump, but they usually don't make any visible traces around them so as not to be identified. Well, if this rubbish builds up, eventually, someone will notice, right? At least I don't remember [such a case]. [interview with the Deputy Chief of Eco Patrol, February 18, 2022]³⁶

According to the narratives of the City Hall employees, the homeless people, with their practices of "dwelling" in urban greenery, constitute a minor problem. They are presented as someone who rather needs help and support, not a problem the municipality would like to fight.

³⁶ Our interlocutor seemed to defend the image of the homeless as someone rather exposed to rubbish left behind by others than creating it themselves: "During one inspection, the city guard visited a large, abandoned post-production area, where people were transporting various waste, such as construction waste and window waste, washbasins. When the guards went there to check on them, they came across such homeless people. But, it can't be said that they were making a mess out there somewhere. Rather, other people who transported their waste there and left it behind were to blame." [interview with the Deputy Chief of Eco Patrol, February 18, 2022]

However, they start to be seen as difficult when executing their agency. In one of the first talks in City Hall, there was a mention of some troublesome activities of people in the homelessness crisis who would "drag" the bulky waste left by the inhabitants into the bus stop. Thus, they may be perceived as problematic when they act, and their actions' effects become visible to others showing how much they differ from regular citizens' conduct.

Unfortunately, we also have a big problem with people who collect scrap metal, homeless people. We have places where garbage bins pile because someone is taking scrap metal to a scrap collection point in a garbage bin or a shopping cart. There is a place near the scrap collection point where we have it regularly. Someone brings [scrap] just in this cart. The purchasers do not want to accept a cart, despite the fact that it is made of metal. Well, we are not able to deal with that. [interview in the Department of Municipal Economy, February 10, 2022]

Therefore, effective acting that disrupts the order contradicts the idea of what the proper activities should look like and what rules they should follow.

The most intriguing incident during our research concerned an email report from a citizen who sent us photos depicting an illegal dump, including a picture of a homeless person lying on an old sofa in a neighborhood green area in a housing estate.

I wanted to report a wild garbage dump and the devastation of the natural environment between [names of the streets] in the green square next to the wall [coordinates]. Someone has nailed a swastika on the tree; there is a lot of rubbish after a libation around; and a homeless man is sleeping. And yet, there is a social

welfare home on the same estate. It all happens under our windows...I am sending photos in the attachment. [email sent to the project mailbox, September 05, 2022]

One photograph depicted a man being watched from behind, resting in the bed. He leans his body on the elbow with his legs covered with a blanket. A crutch is lying on the ground next to the couch. In the other pictures, one can see a quarter of a watermelon, beer cans spread all around, a porcelain dinner bowl with soup remnants, a stoneware ashtray, and some scattered cigarette butts. An upholstered chair stands under the tree. Another eye-catching photo shows a cardboard box on the ground in which empty fish-in-oil cans, drained alcohol bottles, bottle caps, and an empty sunflower have been put away. Evidently, in all this littered area, a man living there prepared a place for his garbage disposal—a small substitute for order in that messy place.

Those pictures showed traces of someone's existence rather than a wild dump. Probably even the municipality would not categorize that situation as an illegal dump, but rather as a neglected area, a place not kept clean. However, from the informer's point of view, those traces of the homeless presence were 'unwanted things' that disturbed the aesthetics of the place.

The fact that a person could be framed as part of an illegal dump made us look at urban space differently and discover new categories that organize human practices there. It became clear that the category of space aesthetics—understood as paying attention to the prevailing order, cleanliness, and beauty of the place—may be separate from the category of ecological sensitivity and alter from the category of com-

peting for space. Although in the latter, the author directly refers to the category of "devastation of the natural environment," and the photos might be seen as a sign of high sensitivity to environmental problems, the appearance of the homeless man makes us introduce a new thread to this interpretation and shifts our focus toward new dimensions of the research problem.

First, it becomes clear that we are dealing here with a struggle for space and the definition of this space. The axis dimension was the vision of the proper organization of the environment and the idea of dirt and disorder expressed by our informer. As Mary Douglas (1966:2) stands:

dirt is essentially disorder. There is no such thing as absolute dirt: it exists in the eye of the beholder...Dirt offends against order. Eliminating it is not a negative movement, but a positive effort to organize the environment.

In that instance, the image of a homeless person concerned not only what was dirty, or messy, but also the helplessness due to the inability to impose a preferred appearance on a space. Moreover, such an organized space contradicted the concept of social order, in which a homeless person should not 'take over' the place reserved for others so that they could enjoy its aesthetic values. The clash of definitions concerned not only space and the vision of cleanliness and dirt but also reached deeper into the notions of a social order in which a homeless person should not dictate conditions, appropriate space, and live in a green area next to a block of flats. The social hierarchy is also revealed here, and with it, the performative resistance of the homeless 'brazenly' living near the apartment block, creating his world by appropriating the space, marking it with

his everyday objects, as well as his garbage collected in a hastily prepared wastebasket.

From the environmental justice perspective, the accessibility and attractiveness of urban green spaces may be seen as a form of the “provision of environmental amenities for the most disadvantaged communities” (Koprowska et al. 2020:1). The research held in Lodz by the team Karolina Koprowska, Jakub Kronenberg, Inga B. Kuźma, and Edyta Łaszkiwicz showed how vital urban green spaces are “to people experiencing homelessness, not only from the point of view of necessity or a lack of any other choice but—more importantly—from the perspective of individual preference and the fulfillment of personal needs” (Koprowska et al. 2020:1).

That case was also unusual in that it allowed us to surpass the limitations of our original view that wild dumps and trash as a matter “out of place” (Reno 2014:3) should be interpreted primarily along the axis of ecological activism. Here, other dimensions of the phenomenon emerged: the issue of space and the struggle for space of various entities, the hierarchical nature of these entities, the helplessness of one of them towards the other, the creation of space for living in conjunction with the delimitation of the space for littering (a hastily prepared waste basket). Thus, that case allows us to go beyond the initial conceptualization scheme toward discovering new dimensions of creating and understanding order and disorder. The presence of a swastika on a tree proves that that space also serves other categories of users: rebellious youth, bored jokers, or nationalists. That also made us look at urban space and practices differently.

Furthermore, an illegal trash dump can be seen as a wild place, an ‘un-tamed’ or ‘feral’ area in urban

space. Various unwanted phenomena occur there: the pile-up of garbage, the presence of homeless people, alcohol libations, vandalism, destruction of greenery, and the display of Nazi symbols. It is an outlawed, out-of-control place that should be under control, but is not.

Culprits, Wrongdoers, Offenders

People illegally disposing of waste in remote locations are the most mysterious, invisible, and unknown group in this study. They are permanently present—as we see the effects of their conduct. The traces of their activity are visible and tangible. They are experienced narratively (many stories about them in the form of rhetoric questions) and materially (much illegally deposited waste). However, at the same time, we can only infer their socio-demographical or psychological features³⁷ based on the remnants they left behind.

Usually, we confront the offenders’ image rather than interact directly with them. People react to the figure of a person discarding waste in unauthorized areas in two ways. First, with a strong emotional reaction: outrage, indignation, rejection, disgust, and a desire to punish the wrongdoer who violates the order. There appear very emotional expressions: “How could someone do that?” Indicating not only the unacceptability but also the complete incomprehensibility of such a demeanor. Often in the discourse, there is a powerful narrative showing

³⁷ Culprits, wrongdoers, and offenders remain a significant but hard-to-reach group. We can only guess their characteristics and motives. In the 2021/ 2022 academic year, two groups of second-year undergraduate students in our classes researched, among other things, the social image of people who create wild dumps. The students obtained a consistent stereotype—it is a middle-aged, drunk man. Laziness, backwardness, stinginess, and selfishness are associated with a person who creates illegal dumps.

the pointlessness of throwing garbage into the forest and getting rid of it in a way that is as unethical as it is, indeed, troublesome. It points to the irrationality of the culprit's actions, who must overcome many obstacles to deposit garbage illegally. "Why did someone make such an effort to carry garbage to the forest and not to PSZOK (legal point of municipal waste collection)? It would be more civilized and convenient." Therefore, the default explanation of the phenomenon is the irrationality, stupidity, or even dullness of the person depositing garbage illegally.

The second line of reaction is trying to unveil the motives behind such practices and reconstructing some rational reasons to comprehend that illegal conduct. The audience evaluating those actions refers to the low environmental awareness of the culprit. One can assume that people who deposit their trash in unauthorized areas do not care about the environment, lack elementary education in this regard, or do not understand the importance of recycling. Very often, they are ascribed laziness. Some explanations indicate the offenders' cunning and their actions as a "sharp practice." However, the most tangible and understandable explication refers to money.

To me, the offenders of illegal dumps are just people who do not pay for this rubbish; they do some repairs and will accumulate some additional municipal waste. And they have a plan just to throw it away somewhere. I think this is a category of people whom I don't think can afford to simply pay for this waste and take it somewhere. [interview with the Chief of the Eco Patrol, February 18, 2022]

I wonder why these people throw away this rubbish. Well, let's take the allotment gardeners. I have a plot

of land outside [name of the city]. And if you enter the forest there sometimes, it's really weird. Maybe the money...Certainly also money. Until a few years ago, the allotment gardeners paid a small fee a month. In my case, it was 5 PLN per month. And then, the statutory flat rate came in; for example, almost 200 PLN is segregated in Lodz. Some people ask if I am not here in January, I am not here in February, we are not here in March, I am not here in December, I am not here in November, and suddenly, let's say this piece? [interview with the Chief of the Eco Patrol, February 18, 2022]

Those colloquial ways of reasoning attempt to make sense of incomprehensible and illegal practices. However, if we move to the level of scientific analysis, it is worth asking whether we really should see such an action as irrational and senseless. Suppose we assume that there is some rationality behind those operations, that they are a calculated method that brings the actor some profit. In that case, it should be assumed that PSZOK is not a rational alternative for the acting entity since, for some reason, they cannot access this site of disposal. So, perhaps, they do not have the status of a resident who has the right to bring their rubbish there, or their garbage does not have the status of municipal waste. An offender who disposes of municipal waste in an unauthorized place must not be the holder of the rights to its legal disposal. By extension, either they do not have a signed waste disposal agreement (garbage declaration), which, as it turns out, is possible, or their garbage is not *municipal waste*, but resulting from economic activity. The assumption about the rationality of practices related to the creation of illegal dumps enables us to present them as the result of broader processes and situate them among particular administrative, legal, or organizational conditions.

Perhaps there are cases when individuals do not see the need for waste recycling or following the proper waste disposal, or even there are some people too lazy to bring their trash to official dumping sites, or perhaps some illegal dumps arise as an act of despair of someone who does not know how to proceed and what to do with garbage, but such reasoning condemns us to a naive approach that overlooks those motives resulted not from ignorance or specific relevance systems, but for very mundane, financial reasons.

For sure, people who dump their trash illegally solve their practical problems. The offenders probably choose the most straightforward way to get what they need: avoiding additional fees or earning extra money. Wrongdoers may save not only their money but also their time and effort. And even if this activity costs them more energy and effort than legal conduct would demand, it still confirms that some additional conditions of this action justify it in the eyes of the actor.

Offenders are not only individuals who illegally deal with 'their own' household waste. It is not uncommon that they act as advocates for a company's interests, either as its employees or owners, disposing of waste generated by business activities. Those include, for example, the aforementioned tire and car repairs, renovation and construction companies, or waste pick-up companies (see: U.S. EPA 1998). Dumping waste that someone entrusted to them and paid for their disposal by throwing it in a roadside ditch is pure profit.

In Poland, "distrust in public institutions is glaring" (Sztompka 1996:50), which explains the motives of illegal dumping in two ways. First, since there is distrust in institutions legally dealing with

waste, one should expect a rather complicated and unpleasant fight with those institutions for the legal return of waste. Second, it is also distrust in institutions that prosecute and punish illegal waste disposal—so being punished seems unlikely, if the institutions are ineffective, perhaps the punishment is not severe.³⁸

Looking for the other possible explanations for creating illegal dumps, one can specify the collateral motive that trashing can be viewed as a form of resistance. Not the effect of getting lost in the system nor misunderstanding its principles, goals, and measures, but a rebellion against it; 'unsubscribing' from the society that organizes and arranges, as negating the rules of order.³⁹ Is illegal dumping the behavior of unsocialized individuals? Are they anti-social?

The method of depositing garbage—carried out anonymously, never openly, under cover of darkness, among bushes, in the absence of witnesses—proves that the offenders recognize the prevailing

³⁸ Polluting or littering in public is punished by a fine of no less than 500 PLN (Art. 145. Zaśmiecianie miejsc publicznych [littering public places Kodeks wykroczeń [Code of Petty Offenses] Dz.U.2022.0.2151) because elsewhere in the world, the penalties for "unlawful disposal of waste, including illegal dumping or unauthorized stockpiling" can reach \$250,000 (on Antipodes, see: https://www.epa.sa.gov.au/environmental_info/waste_recycling/waste-management [retrieved September 18, 2022]), the fine in Poland is small. Nevertheless, the new legislative proposal on counteracting environmental crime announces increasing those penalties from 10,000 PLN up to 10 million if the perpetrator is convicted of an offense against the environment.

³⁹ In his study, *Litter as a Sign of Public Disorder?*, Thaddeus Müller explored littering as a mundane example of low-level disorder and a form of self-presentation in public places as a rule-breaker. He finds that young people react to littering in three ways: conforming to the rules of a clean and tidy environment, bending the rules, or breaking them. All "the reactions of the teenagers towards disorderly behavior were shaped by the way they wanted to present themselves in public" (Müller 2015:27).

norms accurately. If the creation of illegal landfills did not involve a strong norm prohibiting this practice, wrongdoers would not have been hiding it. However, the persistence of the problem and the presence of so many illegal garbage dumps in visible places prove the violators' conviction of impunity.

Arena around the Illegal Waste Dumps (MSI)

Arena—one of the most specific concepts in the theory of social worlds—is a dispute 'place,' a 'battlefield' between various entities that maintain a specific vision of action and a definition of the situation due to their location and adapted ideology. Adele E. Clarke (1991:128) defines the arena as "a field of action and interaction between a potentially infinite wide variety of collective entities" that do not agree with a specific definition of a situation or an action taken concerning that definition. The arena 'works' around a problem and ultimately means disagreement with the direction of action taken by the social world or its segment (Strauss 1993:227; see also: Strauss 1982a; 1982b). In the arena, various problems are discussed, negotiated, fought for, forced, and manipulated by representatives of the social sub-worlds involved (Strauss 1978:124; Kacperczyk 2016:40).

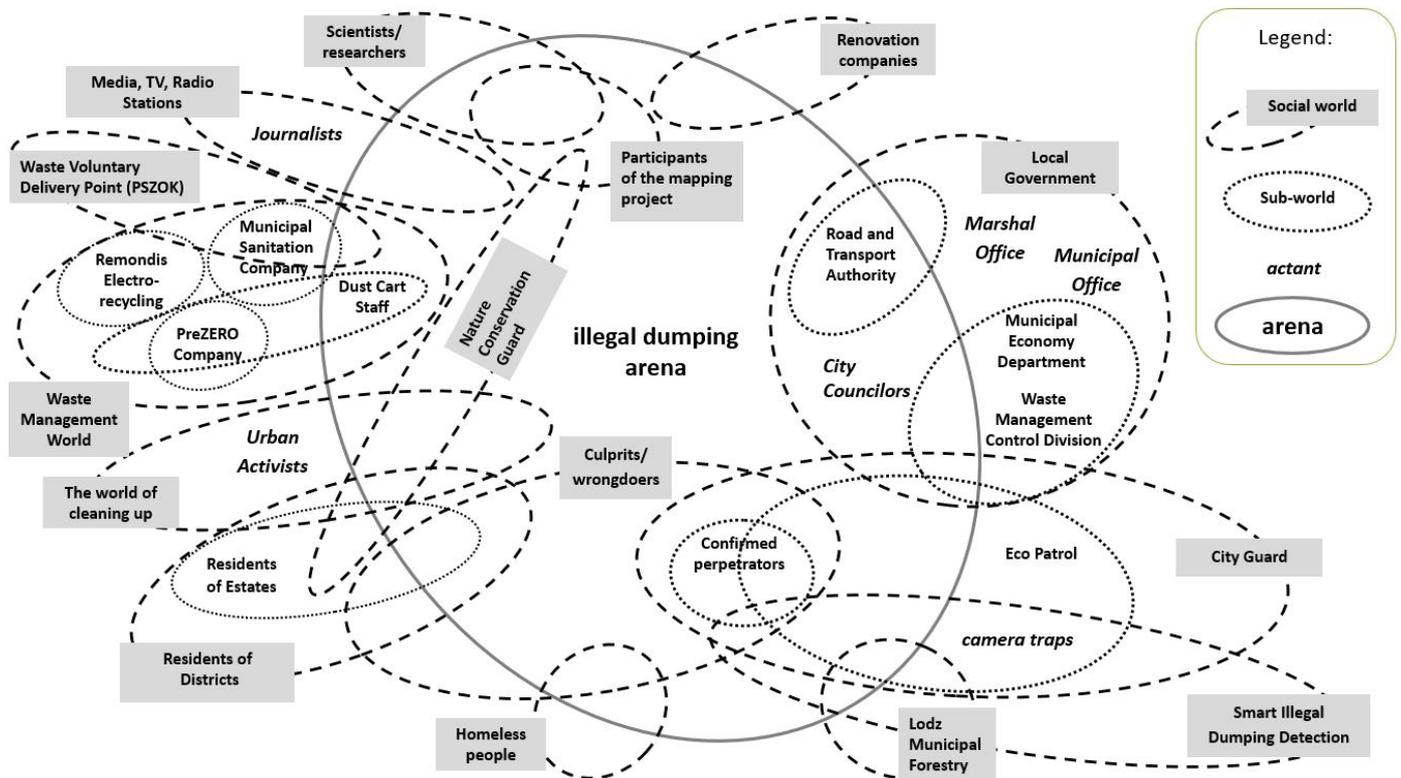
Situational analysis of the phenomenon of unauthorized dumps in the city reveals how different entities position themselves around the problematic issue. Many subjects are involved in the arena of illegal dumping (see Figure 6). City Guard, Municipal Economy Department, city councilmen, waste disposal companies, journalists, environmental activists, researchers, and citizens participating in the project, other citizens reporting illegal dumps

to the authorities—all of them vary their standpoints and views on the studied problem.

The critical group that ignites the issue and makes it persistent are 'invisible' dumps' creators. These 'great absentees' maintain the manifestation, duration, and scale of the phenomenon. Their phantom presence is marked in space by the effects of their actions; only they are hard to grab by the hand. There are cases of accidental recording or deliberate capture on a camera trap, but these are, in fact, isolated cases.

Diverse entities in the arena are coupled with their specific audiences. For City Hall, that primary audience is residents. Their opinion and assessment count. In the narratives, it is constantly mentioned what the inhabitants expect from the municipality, what the municipality can offer them, and how, in the light of the law, authorities can respond to the demands of the residents. In turn, the City Guard focuses on investigating irregularities and reconstructing the motives of offenses in their narratives. Detecting them, punishing them, looking for solid evidence—that is what they are occupied with, and the target authority is an alleged (then materialized in specific cases) judge whose verdict summarizes the effectiveness of their work. In both cases (the City Guard and City Hall), the internal auditors of the work environment in which they operate also have an impact. Urban bureaucracy, here represented by City Hall and the City Guard, could be a gatekeeper for environmental progress (Putkowska-Smoter, Smoter, and Niedziałkowski 2022). Both institutions play such a role in the arena. They focus on operating within legal, administrative, and budgetary constraints. Thus, both entities perpetuate the described arena and their position within it, normalizing that way the problem of illegal trash dumps.

Figure 6. Social Worlds/Arenas Map: Illegal dumping arena



Source: Self-elaboration.

Reconstructing possible paths in notifying illegal dumps, we attempted to show how distracted and fragmented are activities aimed at their monitoring and disposal. How many entities with divergent competencies are involved in this issue, and how confusing the reporting procedure can be from the citizen's stand?

Space is also a very salient dimension of the problem of illegal dumps. When a homeless person was treated as part of a wild dump, we discussed the right to define space and impose its definition on others. In that case, the question was whether it was a dwelling place, a neglected area, or a wild dump. Nevertheless, it must be remembered that

the creation of a wild dump is also a moment of taking some space not only from humans but also from other non-human beings living in the vicinity of illegal dumps. The discursive theme that an illegal dump takes land from them, poses a threat to them, or that they feed on a dump never appeared during our study. Animals and other non-human entities do not appear in that discourse. They are one other great absentee—true silent actors of this arena.

Also, our map, prepared in cooperation with residents, may be seen as a form of actant in the arena of illegal dumping. Even though the dumps depicted and localized on the map do not constitute

an official notification in the legal sense, they remain a reference point for guards and city officials. Yet, we have no data on whether and how the map was perceived and used by entities involved in the arena.

From the beginning of its announcement, the project *Trash in the Wild* met with great interest and very favorable reception from scientists, journalists of local and national newspapers and radio stations, as well as city authorities and IT entrepreneurs. Those entities, when contacting us, expressed their willingness to learn about the results of the research, offered us their ideas for improving the methodology, and congratulated us on the research idea, usually seeing it as a way to solve a troublesome problem. However, that kind of ‘cheering’ for our activities did not translate into taking part in them. Participation has been replaced here by expressing concern for urban space, providing media support, promoting the research, observing the progress of the project, and waiting for its results.

As researchers, we had to navigate between our image as knowledge producers and the agents of change. We tried to build relationships with research subjects during the investigation process and introduce their different viewpoints into research, not losing contradictory data and their commitment and valuable data they could have submitted.

Although an actual change, understood as a final solution to the problem of illegal dumping, really interests us, we assume that, in this particular situation, it would hardly be achieved. The problem of illegal dumps has not disappeared for many years. It can be said that it has been ‘normalized.’ It is embedded in citizen reporting procedures, the funds for their removal secured in the communes’ bud-

gets, and the contracts with companies specializing in waste disposal. Those measures are a rational response to the persistent problem, but not its final solution. Although it is indispensable, finding and cleaning out illegal dumps does not solve the problem. Just like the activities of the volunteers who organize the cleaning up actions, it is valuable and relevant, but not eliminating the illegal practice since volunteers and offenders operate in parallel, mutually canceling out the effects of their practices.

Arena participants often play conflicting, symbiotic, complementary, or mutually exclusive roles. Companies that collect waste, the municipality that is responsible for cleanliness and order, residents who do not have signed contracts, dishonest entrepreneurs, and other human actants are strongly affected by technologies, legal regulations on waste disposal, and even indirectly by European Parliament’s resolutions implementing the idea of the circular economy. Somewhere at the intersection of the fields of activity of all participants of the arena, a node is created that stabilizes this unresolved yet still-being-solved problem.

All of that is connected with the materiality of the waste itself—objects thrown around as inert and quiescent matter, but with the power to influence and its non-human agency.

Conclusion

Wild dumps have become an integral part of our reality. The persistence and indelibility of that problem are worrying. Creating the map of illegal dumps in the city, we attempted to situate the problem in the physical space and gather data on their features and locations. However, in this study, we

were mainly interested in the whole phenomenon of illegal dumping, the phenomenon that consists of the combination of subjects, things, activities, and processes that create, support, and reproduce the problem at hand. That assemblage includes people who deposit their rubbish in places not intended for this, people who use a given area and notice the effects of those littering acts, people who decide to do something about it and report it to the appropriate authorities, the institutions themselves with a mandate to seize the problem, accepting those reports and advising on what to do about it, and finally, the services responsible for cleaning the area (if the perpetrator cannot be identified beforehand).

Creating an illegal dump does not encapsulate the act of abandoning waste in an improper location. It spans beliefs on how to use space and whose terrain it is. It is embedded in social perception about what is correct and what is not correct. It is settled in legal provisions indicating how to store and collect the garbage, stigmatizing and punishing perpetrators' practices, and the effectiveness of the system of prosecuting offenses.

We are convinced that the problem of illegal dumps cannot be solved only by repeating the same procedures iteratively (residents report—the city removes—the guards track the perpetrators). We do not discourage those actions and consider them indispensable. Discontinuing that routine would likely have caused an even greater rash of illegal dumps. The point is that, on the same path, we can only keep the unauthorized waste under control as such, but we will not be able to eliminate it.

New elements must be introduced into this equation for a change to occur. Nevertheless, to know what kind of change would be required and how to implement it, one needs to discover more about the phenomenon itself, its context and conditions, how illegal dumps are created, what else they are associated with, and what they are involved in. That was mainly the purpose of this preliminary situational analysis based on several months of data collection and joint mapping of illegal dumps with the inhabitants.

Although this initial outline of the arena cannot be considered a complete description, we hope it sheds some light on the problem of illegal dumps.

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(Footnotes)

1. <https://strazmiejska.lodz.pl/zglos-interwencje/> [retrieved September 18, 2022]; Polish City Guard is under the Police, and reports of wild dumps to the Police are redirected to the City Guard.
2. <https://www.policja.pl/pol/kgp/biuro-prewencji/moja-komenda/33012,Aplikacja-mobilna-quotMoja-Komenda-quot.html>. Retrieved September 18, 2022.
3. <https://mapy.geoportal.gov.pl/iMapLite/KMZBPublic.html>. Retrieved September 18, 2022.
4. It is possible to contact the district police station directly via phone or email. *Moja komenda* app has a search engine for such local contact information. Phone number 112 is only for emergencies.
5. *Moja komenda* app has a search engine for contact information regarding district officers.
6. <https://www.gios.gov.pl/pl/aktualnosci/750-zglos-nielegalne-postepowanie-z-odpadami>. Retrieved September 18, 2022.
7. https://www.wios.lodz.pl/Kontakt_calodobowy,339. Retrieved September 18, 2022.
8. <https://lckm.uml.lodz.pl/Page/Kontakt>. Retrieved September 18, 2022.
9. WGK does not have a webpage containing the email czynstosc@uml.lodz.pl. Email provided can be found in the UMiŁ domain, for example, in the 'news' page (<https://uml.lodz.pl/aktualnosci/arttykul/fotopulapki-na-smieciarzy-ukryte-kamery-namierza-lamiacych-prawo-id43354/2021/9/8/>, retrieved September 18, 2022).

10. <https://bip.uml.lodz.pl/wydzial-gospodarki-komunalnej-oddzial-ds-kontroli-gospodarki-odpadami/historia/102540/>. Retrieved August 19, 2022. Note: czystosc@uml.lodz.pl not listed.
11. ZDiT does not list wild trash dumps on its webpage. However, it lists contacts elsewhere given as designed for reporting dumps. Also, ZDiT is involved in cleaning illegal dumps if they are located on the road lanes (*pas drogowy*) (<https://uml.lodz.pl/komunikacja-i-transport/zarząd-drog-i-transportu-bip/>).

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