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WHAT TO THROW AWAY? PERSPECTIVES ON WASTE MANAGEMENT IN NUR-SULTAN

НЕНІ ЛАҚТЫРУ КЕРЕК? НҰР-СҰЛТАН ҚАЛАСЫНДАҒЫ ҚАЛДЫҚТАРДЫ  
БАСҚАРУҒА КӨЗҚАРАСТАР

ЧТО ВЫБРОСИТЬ? ВЗГЛЯДЫ НА УПРАВЛЕНИЕ ОТХОДАМИ В ГОРОДЕ НУР-СУЛТАН

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by

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## **Abstract**

The waste management system of Nur-Sultan is a large-scale complex that provides the services like waste collection, sorting, recycling and burying in the landfill. The main organizations that are directly involved in these processes are the Akimat (municipal government) for the Saryarka district of Nur-Sultan, LLP Clean City NC (private waste collection company), LLP Kaz Recycle Service (recycling facility) and LLP Nur-Sultan Eco-Landfill (a landfill for municipal solid waste and construction waste). Due to both recent urbanization as well as to a high level of consumption among city residents, the amount of waste is increasing in Nur-Sultan and the waste management organizations are under pressure to constantly increase their work capacity. In this thesis, the waste management system of Nur-Sultan will be examined primarily from the perspective of employees, as well as from the population of the city. Firstly, the working conditions of the waste management workers will be analyzed in terms of the decreased economic value of waste management sector and decreased prestige of the sphere as a result. Secondly, there will be determined how the workers (legal, illegal and migrant) in the waste management sector confront the stigmatization of their profession. Finally, the residents of Nur-Sultan will share their thoughts and beliefs concerning waste and their memories of waste management during the Soviet period. The concept of value will be a defining term in all three chapters because since waste is typically regarded to be worthless, but both the employees and residents of Nur-Sultan have their own perception of the concept. By considering the economic and moral characteristics of value, I show the changing social conditions of waste and its management in the city.

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## Introduction

*-What kind of things do people throw away?*

*-Everything. The Uzbeks<sup>1</sup> here astonished, they are amused, “Why do you throw away bread”? (Marat, personal communication, May 23, 2018)*

The waste management in Nur-Sultan<sup>2</sup> may not be considered as a huge problem due to its timely collection in the city. However, visiting the landfill<sup>3</sup> in Nur-Sultan may change our perception of this environmental issue from different perspectives. A large mountain of garbage with an area of a small city district is the municipal solid waste of the residents of Nur-Sultan. This mountain of garbage is already full, and the second landfill pit is prepared to build a second waste district outside the city. The answer to this environmental problem can be found in the conversation below. The residents of Nur-Sultan throw away everything into trash and it can be seen that even food like bread can be found in the landfill. It is unacceptable to put the bread on the ground or throw it away among the Central Asian nations because of the historical past and cultural perceptions of labor invested in producing bread. If people started to neglect cultural and social norms, this may be an indicator of the change in the value system. In order to understand why people do throw away everything, it is necessary to examine human values attached to garbage. This study focuses specifically on individuals employed in the waste disposal industry of Nur-Sultan because the waste management workers contact it directly by touching it, feeling the odors and shape, and having both sensual and emotional experience. The concept of value may reveal the relationship between humans and waste and people's decisions and choices about the objects that surround them in everyday life. Thus, the environmental sustainability of the waste management system in Nur-

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<sup>1</sup> By saying “the Uzbeks” a participant Talap means the citizens of Uzbekistan that came to Kazakhstan to seek employment and better living conditions.

<sup>2</sup> The capital of Kazakhstan which was renamed from Astana to Nur-Sultan based on a state decree of March 23, 2019. For more information refer to [http://www.akorda.kz/ru/legal\\_acts/decrees/o-pereimenovanii-goroda-astany-stolicy-respubliki-kazahstan-v-gorod-nur-sultan-stolicu-respubliki-kazahstan](http://www.akorda.kz/ru/legal_acts/decrees/o-pereimenovanii-goroda-astany-stolicy-respubliki-kazahstan-v-gorod-nur-sultan-stolicu-respubliki-kazahstan)

<sup>3</sup> A landfill can be defined as “the controlled disposal of waste materials to land; differentiated from waste dumping in which no control is exercised” (Westlake, 1995, n.p).

Sultan may be assessed by close examination of the concept of value and its relationship to waste.

### **Motivations for the study**

My interest in waste management started in 2016 when my family decided to sell our apartment and move to a bigger one. Since *KSK*<sup>4</sup> was always changing and our constant complaints about the garbage on every floor and outside of the complex were left without any response, it was decided to clean the area by ourselves. The advertisement was given online, and my husband was motivated to clean the surroundings of the residential complex for the potential buyers who would like to come and see our apartment. While throwing away the daily garbage we did not close the garbage bag because we collect and put all the garbage on the way to a garbage container. Some Saturdays my husband went outside to clean the area near the residential complex from bottles and scrap papers. After some time, we observed that our neighbors from different floors started to show interest in what we are doing but they were unaware that the initial goal was to clean the area to sell the apartment. One day they organized a *subbotnik*<sup>5</sup> and invited us to join them. This was the moment when we got acquainted with most of the neighbors and after six months of constant cleaning and repairing, we finally sold the apartment. During that period, I was always thinking about the people working in waste management sphere and doing it for a salary. What was it like to touch the garbage and clean up after someone every day? How do they feel themselves? Do they have the same feeling of unfairness as me or my family members while collecting the garbage? These kinds of questions concerned me after doing only an incremental part of waste workers' job.

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<sup>4</sup> Each residential complex or apartment blocks have their own *KSK* which is responsible to provide services such as cleaning the area, controlling proper water and heat supply, processing suggestions and complaints about the living areas and others.

<sup>5</sup> Saturday gatherings of people to clean the area from garbage that usually were organized in Spring. The practice of holding a *subbotnik* came from the Soviet period and are still popular in Kazakhstan.



A year later when I was choosing a topic for the thesis, based on my experience and interest I have decided that it will be connected to an environment and waste management. The topic of my research was “Waste management system in Astana: The social hierarchy and self-perception among the employees of the waste management sector”. During the writing process, the research questions formed in the beginning will change due to collected data and analysis. Initially, the main aim of the research was to find how waste management workers of Nur-Sultan position themselves in relation to waste. In order to explore this relationship, I wanted to find the answers to the following questions:

- a) Is there a social hierarchy among the workers in the waste management sector of Astana?
- b) How does working in the waste management sector of Nur-Sultan affect the self-perception of an employee?

The objectives of the study were to explore waste management system of Astana, to compare different working conditions and attitudes of waste management employees and find out the social relationship between humans and waste from the sociological and anthropological perspective. It was planned to recruit participants by a snowballing method on their workplaces. The research sites were the landfill of Astana, one of the main garbage collecting companies, and the Akimat of Astana. There had to be organized in-depth interviews and focus groups.

During the fieldwork I found that there is also one more important research site is missing which is a recycling plant situated near the landfill. After visiting all four research sites, talking to people and making notes about my observations it was evident that the social hierarchy should not be a focus of the research objectives. All waste management organizations are equally involved in the process and the social hierarchy became an irrelevant goal. While the second goal was to learn the self-perception of the employees working in waste management. The data obtained from the fieldwork allowed to answer this

question. To sum up, the fieldwork in waste management organizations and interviews with the employees have partly changed the initial research objectives. Instead of studying social hierarchy it was evident that the most important issue is the waste itself and the concept of value. After analyzing the data, it was found that the concept of value is significant for the waste management employees and the residents of Nur-Sultan in terms of how they perceive waste, consume products, discard waste and identify themselves.

The initial research and interest in the new topic started with reading literature that could be divided into four main themes such as 1) purity and pollution, 2) waste as a source of pollution, 3) the landfills, and 4) formal and informal sector workers in a waste management system. The section "Purity and pollution" is intended to form the theoretical base of the literature review. "Waste as a source of pollution" provides basic information on major works about waste management. Also, there is a section about the landfills that discusses the articles about how landfills are operated and maintained. The sections on formal and informal sector workers of the waste management system examine the work and contributions of employees in this sphere.

### *Purity and pollution*

One of the most influential books in the study of waste management can be regarded Mary Douglas' (2010) "Purity and danger: an analysis of the concept of pollution and taboo". The book provides the core understandings of how people perceive purity and dirt. Douglas (2002) states that people want cleanliness because they want to preserve order. Anything that breaks the system of order should be eliminated and cleaned (Douglas, 2010). The author states that "dirt offends against order" (Douglas, 2010, p. 2). Mary Douglas' ideas about dirt and order can explain at least partly why people throw away garbage and their attitude toward waste. In contrast, Cyrus Mody (2001) challenges the notion of cleanliness and proposes an opposing view to that of Mary Douglas. According to the author, dirt can be useful in some

cases (Mody, 2001). For example, Mody (2001) presents how laboratory dirt in material sciences may be helpful in exploring a new phenomenon. The main argument of Mody's (2001) article is that cleanliness and purity do not allow people to think "out of the box" (p. 29). While some dirt can help us to think extraordinarily and make new discoveries (Mody, 2001). This is another view on the perception of dirt and how it can be accepted rather than excluded in the scientific world.

Moreover, pollution may be seen from the political perspective like in Sarah Moore's (2009) article which challenges the notion of modernity by tackling the problem of waste accumulation in Oaxaca, Mexico. She states that modernity is usually associated with order and cleanliness, but it also results in waste accumulation due to high consumption rate (Moore, 2009). There can be seen two confronting points of modernity. Moore (2009) positions her argument on Mary Douglas' idea about what is clean and dirty. The author presents how people can protest dumping and claim their "rights to the city" (Moore, 2009, p. 434). In this case, waste can become a powerful political tool in the hands of city residents. The same idea was expressed by Jessica Winegar (2011) who examines the reaction of Egyptians in the post-Mubarak era. She states that during Hosni Mubarak's regime Egypt became a very corrupt country and many people were not content with it (Winegar, 2011). The problem became even worse when the government decided to exclude the Zabbaleen (informal waste collectors) from the waste management system of Egypt (Winegar, 2011). After Hosni Mubarak's regime, the youth of Cairo went to the street and started cleaning the city as a symbol of "purification" (Winegar, 2011, p. 33). There can be seen that a corrupt political regime is associated with dirt and filth, while justice is associated with cleanliness.

*Waste as a source of pollution*

Waste is a source of pollution independently of its origin and its producers and it may become a sensitive issue for people if waste is not managed properly. Joshua Reno (2011) explores waste trade between Canada and the US in his paper "Transnational Waste and its Discontent". He found that due to neoliberal policies of the 1960s there appeared waste trade among the US and other countries as a source of finance and efficient market. US landfill in Michigan which is called Four Corners accepted waste from Canada. Reno (2011) examines how people perceive waste trade and he found that waste is a very subjective notion and managing someone's waste is not pleasing work even on a state level.

Another important perspective to waste is about how people usually perceive waste while trying to bury in the landfills. The book written by William Rathje and Cullen Murphy (2001) is a useful guide in exploring the archeology of garbage. The authors tell about the work done by the Garbage Project that was established in 1971 in Tucson, Arizona (Rathje & Murphy, 2001, p. 19). They found that biodegradation of the waste in the landfill is a myth because microbes and other organisms need certain conditions to degrade waste. Also, the Garbage Project explored many objects that were found in the landfills. The authors think that waste is not "out of sight, out of mind" but "in sight garbage somehow manages to remain out of mind" (Rathje & Murphy, 2001, p. 45).

The contribution of each person is not considered as a significant issue until there are presented some alarming numbers about the human production of waste. Another author Edward Humes (2013) explores the problem of waste management in his book "Garbology: our dirty love affair with trash". According to Humes (2013), every person produces 102 tons of trash during his/her life (p. 5). The author tries to analyze how people generate trash in his book. There is a history of waste management in major cities in the United States. Also, Edward Humes visits big landfills such as Puente Hill in Los Angeles and it becomes a major site for his book. At the end of the book, he asks how people can reduce waste in their daily

life. As an example, he proposes some basic rules created by Bea Johnson who is an artist who promotes the ideas of reducing waste at home (Humes, 2013). This book is a good starting point for those who want to know more about successful waste management projects and reflect on their own daily waste.

### *The Landfills*

The landfills may be indicative of human nature, history and their willingness to see their own waste. According to Rassmussen (1992), there are several factors that affect the construction of prisons, landfills, and incinerators such as lower risk, more advantages than disadvantages, and low population density (Rassmussen, 1992). There is a form of protest that the author calls “Not-in-my-backyard (NIMBY)” when people are not supportive of the city projects that will affect their living conditions (Rassmussen, 1992). If the above-mentioned factors are present, then NIMBY protest is expected to be weak. From this analysis, the landfills and incinerators are perceived to be harmful and inconvenient from any perspective. Also, the author points out that in any case, the construction of prisons is preferable than the construction of incinerators and landfills (Rassmussen, 1992). Despite this fact, landfills allow people to see their history and livelihood in terms of consumption. Martin Melosi (2002) in his article demonstrates that one of the oldest landfills in the United States, Fresno Sanitary Landfill, can have an ambiguous status. On the one hand, it shows the consumption pattern of people. On the other hand, it is a good place to see the history of human production and evolution (Melosi, 2002). The article proved that people prefer to study history through old objects but not through their own waste (Melosi, 2002). The article is useful in understanding people’s perception of landfills and history.

However, it is important to understand that the landfill is not just a collection of discarded objects, but it may contain many living organisms as well. Myra Hird (2013)

analyzes in her article how landfills are hazardous to our lives and the environment. According to Hird (2013), landfills are very dangerous to the environment because when different waste mixes there appear toxic gases and liquids. She analyzes landfills from the perspective of Actor-Network Theory. Landfills are not the product of only humans, but there are also invisible microbes that help to degrade it. Hird (2013) describes the landfills as the workplace of different organisms that interact with garbage disposed of by humans. The major problem for the Myra Hird with the landfills is that they are dangerous and may be toxic (Hird, 2013). Thus, it is important to change our habits of discarding things.

#### *Informal sector workers in the waste management system*

In most countries, the waste management system is divided into formal and informal sectors. Informal waste management is more efficient and ecologically friendly than the formal one (Gutberlet, 2016; Ramos, Vicentini & Ortega, 2012). The formal sector is controlled by the local governments, while the informal sector comprises of people who are self-employed (Burcea, 2015). Also, Burcea (2015) states that informal waste management sector developed due to poverty, unemployment, the urbanization process, demographic aspects, and others. This person working in the informal sector recycle and collect waste more efficiently than formal sector employees. It is usually developing countries that have informal waste management sector. They bring economic, environmental and social benefits to the public (Burcea, 2015). The main question for Burcea (2015) is that workers in the informal waste management system are being marginalized and, in most cases, neglected by the governments.

One of the examples of the informal sector in waste management is demonstrated by the group of Egyptian waste collectors called Zabbaleen (Kuppinger, Hourani, & Kanna, 2014; Iskander, 2009). The film “Garbage Dreams” produced by Mai Iskander (2009) shows the life of Zabbaleen in Cairo and how they manage waste. The Zabbaleens are a Christian

community that lives in Cairo and recycles waste. They do their work by hand and sort the garbage into different materials like metals, plastic, textile, and paper. They recycle almost 80% of Cairo's trash (Iskander, 2009). The Zabbaleen live in poor regions and maintain livelihood by selling the raw materials to other countries or Cairo's factories. The main problem of the Zabbaleen is that they do not get support from the government of the city and they are perceived by the authorities as backward (Iskander, 2009). There are also garbage collecting companies that work in Cairo, but they do not recycle garbage as Zabbaleens do. Garbage collecting companies dump waste in the landfill. The Zabbaleens are losing their source of livelihood because they cannot compete with the companies in terms of transportation and equipment. However, Cairo's society prefers the Zabbaleens because they are more skilled in sorting and recycling the trash in an efficient way (Iskander, 2009).

The same group of people exists in Uruguay that collects the city garbage and recycle it by themselves. The article written by Moates (2010) discusses the clasificadores ("classifiers or sorters") in Montevideo, Uruguay. These people live in urban areas and collect trash in order to feed their pigs or sell it to recycling plants (Moates, 2010). The local governments have problems with clasificadores because it is prohibited to maintain livestock breeding in the city without good sanitary conditions (Moates, 2010). There were the cases of the slaughter of clasificadores' hogs by the local officials. Uruguay experienced a deep economic crisis in 2002 and clasificadores maintained livelihood by collecting trash for the hogs. These group of people lives in poverty and they are not supported by the government (Moates, 2010).

Sometimes the government may be supportive of their informal sector if the residents of the city support them too. Another example of the informal waste collection can be found in Buenos Aires in Argentina (Schamber, 2010; Chronopoulos, 2006). Chronopoulos (2006) examines the paper collectors of Buenos Aires that call themselves cartoneros. These people

live on the margin of poverty. Before 2003 their work was considered illegal. However, they were supported by the city residents and the government recognized their work for the society. In 2001-2002 Argentina also experienced economic crisis and many people lost the jobs (Chronopoulos, 2006). Most of them became cartoneros because of their desperate situation. The case of cartoneros can be considered as a good example of how the government may support the informal waste collecting sector (Chronopoulos, 2006).

In some countries, there is a social hierarchy in the informal waste management sector (Hartmann, 2012; Ravichandran, 2011; Hayami, Dikshit, & Mishra, 2006). The article written by Hayami, Dikshit, and Mishra (2006) examines the waste pickers and collectors' situation in North-East Delhi. According to the authors, waste pickers collect waste from the streets while waste collectors buy waste from the households and small-scale entrepreneurs (Hayami, Dikshit, & Mishra, 2006). The formers earn money from selling the waste to dealers, wholesalers or recycling plant. They live below the poverty level in India. The latter group sells waste only to waste dealers. They are almost on the poverty level and have slightly better conditions than waste pickers (Hayami et al., 2006). Both groups have the same job, but it is almost impossible for waste pickers to become a waste collector and raise their career status. Most waste pickers come from different regions such as Bengal and do not speak Hindi (Hayami et al., 2006). Waste collectors are in a patron-client relationship with the dealers and both collectors and dealers are from Uttar Pradesh. It is easier for a person from Uttar Pradesh to establish contact with a dealer because they have common ethnic ties. The authors state that both waste pickers and collectors contribute to maintaining the streets clean (Hayami et al., 2006). Waste pickers are at the bottom of the hierarchy. It seems like deep poverty among the waste collectors and pickers is a huge problem because these people do not have the opportunity to make a career in this sphere. Their hard labor does not increase their income, but it is beneficial for society (Hayami et al., 2006).



People working in the informal waste management sector are frequently marginalized. According to Carl Zimmering (2004), workers in waste management are usually associated with waste. The author analyzes the scrap dealing business in the United States in the period between 1870-1930. Zimmering (2004) states that scrap business is considered a good work because it is environment-friendly and good for the ecology. However, most people in US associate workers in this sphere with waste and scrap business as dirty work. It is true that working with waste is not a clean job and it includes some dangerous elements. Moreover, immigrants in the US were thought to be dirty workers. Jewish and Italian immigrants worked in the sphere of waste recycling and collected scrap in order to sell it as raw material (Zimmering, 2004). Associating scrap business with waste and dirt only decreased profits of those who worked in this sphere (Zimmering, 2004).

*Formal sector workers in the waste management system*

Joshua Reno in his article “The Life and Times of Landfills” describes the image of the American landfill which is called Four Corners in Harrison of Michigan State (Reno, 2016). The author argues that the landfill is not solely a human creation, but it is a work of various species from microbes to seagulls. He states that a landfill is a place where human plans are interfered by different natural forces, flora and fauna (Reno, 2016). This human and non-human relationship cannot be controlled, and it is usually unexpected. Joshua Reno (2016) argues that landfilling is not the worst method of managing waste in comparison to composting and incinerating. The latter two methods also have their drawbacks (Reno, 2016). He concludes the article by saying that any method of waste management is related to non-human forces that change our perception of it (Reno, 2016). Thus, a landfill is a place where human and non-human objects interact in different ways. It seems like his article is written in defence of the landfills in comparison to other methods of waste management. The author's work may be useful in terms of describing the landfill and biological processes in it.

In another earlier article "Your Trash is Someone's Treasure: The Politics of Value at a Michigan Landfill", Joshua Reno (2009) shares his findings from working in the Four Corner landfill in Michigan. He analyzes the thoughts, behavior, and work of landfill employees. Reno (2009) states that almost all workers are involved in scavenging despite it is prohibited. While scavenging they can "individuate" different obsolete objects and give them a new identity (Reno, 2009, p. 8). Also, they can show their masculinity to others by remaking objects into usable ones. In addition, landfill workers scavenge in order to reuse items (Reno, 2009). Joshua Reno (2009) points out that there are also moral concerns among workers. They are afraid to be associated with waste and hide the fact that they work in the landfill. Also, some of them live near upper-class houses in order to distance themselves from the association with waste. Landfill workers' pay too much attention to being clean after work because they find upsetting when their children or wives complain about the bad odors (Reno, 2009, p. 18). It is a very useful reading because it provides feelings and concerns of people who contact with waste every day. The author's analysis of scavenging shows the interaction between waste and people. Waste has a huge impact on human's behavior and way of thinking. Also, humans affect waste and transform their life cycle.

## **Methodology**

### *Nur-Sultan landfill*

After identifying a research topic and research question I needed to see the fieldwork site where I will be conducting research during summer 2018. At the beginning of February 2018, I found that a team of scientist from the School of Engineering at Nazarbayev University was visiting a landfill to take the samples and check whether it is possible to get energy by burning different categories of waste. They allowed me to join their team to see Nur-Sultan landfill and get acquainted with their research (see Figure 1).



*Figure 1.* A photo in front of the building where waste is weighed in the landfill territory  
(own photo).

A preliminary visit to the landfill was a useful experience that helped to see the fieldwork site and my future research participants (see Figure 2). At this stage, I did not take the interviews but tried to understand whether it is feasible to conduct research in the landfill of Astana. After gaining some confidence and more interest in studying waste management system of Nur-Sultan, there was a period of application to the Research Ethics Committee of Nazarbayev University. After the application to the Research Ethics Committee was approved, I decided to start my fieldwork at the end of May 2018.



*Figure 2.* Nazarbayev University laboratory workers sorting the garbage into different  
categories with the landfill workers (own photo).

My fieldwork started at the end of May in Nur-Sultan landfill which was considered as a state enterprise with a right for commercial affairs<sup>6</sup>. The landfill was privatized in March of 2018 but there have not been any changes due to bureaucratic procedures that delayed the transformations of the landfill management. I had the official letter from the university that explained the reasons of my arrival to the landfill, but it did not have any value because the landfill management allowed me to enter the landfill territory and assigned a manager who would help me to navigate around the landfill.



Figure 3. The entrance of Nur-Sultan landfill before privatization (own photo).

Usually, I arrived early in the morning by myself either by car or public bus and left the landfill on the bus for employees. The manager who was assigned to help me was an ecologist, a woman in her thirties who worked in the office building. She had good relationships with most of her colleagues. On the first day of my fieldwork, she introduced me to other employees working in different sectors and showed all the buildings and the major

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<sup>6</sup> This kind of ownership is called ГКП на ПХВ (Государственное Коммунальное Предприятие на Праве Хозяйственного Ведения) which means that the government allowed a commercial organization to manage the given land and organize their own enterprise but under state control and corresponding obligations. The more information on this can be found in a state law on State Property of March 1, 2011. Retrieved from <http://adilet.zan.kz/rus/docs/Z1100000413>

territories for the garbage. The following days I could approach people without her help because the workers could recognize me.

Most of the workers in Nur-Sultan landfill were elderly men who started working there since its establishment and were waiting for the retirement. Only one woman was a cleaning lady in the office building and three or four women worked in the offices and scale building. I was interested in talking to manual laborers who would contact waste more often than those working in the offices. Thus, most of the time the interviews took place outside near the garbage mountain or in the garages with the special equipment and excavators. During the first days, it was physically difficult to conduct the interviews outside under the sun and strong smell from the landfill. By the end of the day there was a feeling of exhaustion and headache despite that I did not do any physical work. It was more comfortable in the buildings or garages, but it was impossible to escape from the smell.

In the beginning, it was difficult to comfort people especially when they had to sign the consent forms. However, the interview questions were organized by different sections such as basic information, questions about their work, the attitude of society, general questions about other waste management organizations and their thoughts about scavenging on the landfill. Most of the questions aimed comforting and allowing a participant to talk more about themselves and their feelings, their job, and responsibilities. Sometimes it was important for the participants to know more about the interviewer before they would answer the questions or participate in the research. I had to explain in detail about my research, study program, family background, and even the hometown. Also, there was planned to make focus groups, but it was impossible because they could not stop their work simultaneously.

It was decided to conduct interviews by switching the research sites. For example, I spent two days in the landfill and two or three days in the recycling plant, then two days in the Akimat. I was two days in the landfill then I had to go to other research sites. In June 2018 I

was not in the city and could continue the fieldwork only in July. When I came to the landfill in July, I mentioned that the entrance had changed (see Figure 4). Now there was the name of the organization and it became a private organization<sup>7</sup>. During the one-month period the landfill was transformed due to the privatization process. The main office building had changed inside: there appeared new rooms with new office workers. I noticed that it became more bureaucratic and organized in terms of paperwork. There appeared new positions like economist, human resources manager, head assistant, and an accountant. It became more difficult to approach the head of the landfill because all inquiries were processed by his assistants.



Figure 4. The entrance of the landfill after privatization (own photo).

The privatization of the landfill changed the working days of the landfill employees. In addition, the manual laborers told me that there was some reduction in the labor force, but I could not obtain official statistics on this issue. Most of the landfill workers, especially the manual laborers, were pleased to see me again. It seems like due to my age and gender I was perceived by the landfill employees as a granddaughter or daughter and most of them were

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<sup>7</sup> In Kazakh language “ЖШС” or “ТОО” which stands for Limited Liability Partnership (LLP).

calling me “ҚЫЗЫМ”<sup>8</sup>. During hot summer days, they would invite me to join the lunch and even shared the meal with me. Being a female and younger than your research participants may have both advantages and disadvantages. On the one hand, most of the employees in the landfill were feeling comfortable to talk and share their life stories. They would recall their own grandchildren and try to be helpful, caring and polite. On the other hand, this researcher’s position may limit a study since the participants might not consider the researcher seriously. For example, one day during the lunchtime I witnessed a quarrel between a landfill head and two laborers that work on the landfill mountain. The laborers told me that the migrant citizens from Uzbekistan<sup>9</sup> working illegally on the landfill complained that they sleep during night shifts and the landfill boss was furious. They were helpless because the landfill boss warned them that the next time, he would dismiss them if the situation repeated. I wanted to ask more and record the conversation, but the landfill laborers were afraid to lose their job and asked me not to interrogate them anymore on this topic.

Overall, I completed five in-depth interviews and produced notes on my observations. The fieldwork in the landfill was the most difficult part of my research for several reasons: it was situated far from the city center (approximately 30 minutes on a private car and one hour by public bus with two transfers); there were a lot of insects, scavengers such as birds and aggressive stray dogs and the smell of rotting garbage took some getting used to. During the fieldwork I did not wear any mask or protective clothes. The weather conditions had a huge effect on the working condition in the landfill. When it was hot summer days the smell was very strong, and the insects were flying everywhere. During the rainy autumn days, it was very muddy, but the smell was not so strong as in summer. The best season for the landfill

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<sup>8</sup> In Kazakh traditional way of communication elderly may approach females as “ҚЫЗЫМ” which means “my daughter”. For example, the males can call each other “бауырым” which is usually used between blood relatives. This type of communication facilitates the conversation and perceived as polite, kind and friendly way of calling somebody.

<sup>9</sup> Most of the landfill employees were saying that there work the Uzbekistani migrants who illegally collect the materials from the landfill to sell it. However, I was not able to see and talk to these illegal Uzbekistanis in person.

was during winter because the garbage would freeze, and therefore smell less and attract fewer scavengers and insects.

### *LLP Kaz Recycle Service*

Another research site was a recycling plant which is called LLP Kaz Recycle Service. It is situated near the landfill, but they were two different organizations with different owners. In comparison to a landfill, a recycling plant was a private company that was not so strictly controlled by the government. In comparison to the landfill, a recycling plant had a security guards that check and monitor who enter or leave the organization. I had to show the official letter to the security guards, then it was checked by a safety manager after it was discussed with a person who had a higher position like a director. When my presence at the plant was approved, I was assigned a person who would show me the recycling plant. This person was a safety manager who agreed to make a tour around the plant and explain the company's functions. I was issued a helmet, mask and protective clothing. Since at that moment I thought that my primary goal was to focus mostly on the landfill workers I visited the recycling plant only once.

A safety manager who called himself Farrukh<sup>10</sup> showed me the plant from the entrance and explained the working process: how they receive garbage, sort and then recycle. I was able to enter the plant and see how people work and produce different recycled materials. I noticed that most workers were without masks and some people on the sorting lines did not have protective clothes. Also, it should be noted that the workers in the recycling sections were mostly white Russians or Russian speaking Kazakhs. While on the sorting lines there were Kazakh speaking Kazakhs and other people of Asian origin. It was very noisy inside the plant and it had the same acrid smell as the landfill.

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<sup>10</sup> The real names of the participants of the research were changed to pseudonyms for the purposes of anonymity.



The machines were unloading the garbage on the ground near the entrance to the plant, then the workers were selecting larger objects, such as machine tires, furniture or technical equipment. The large garbage was put aside while all other municipal solid waste was moved by tractor into the recycling plant. It was deposited into a large pit where it was then divided into two sorting lines (see Figure 5).



*Figure 5.* The first two lines that move the garbage into sorting lines in the recycling plant  
(own photo).

The garbage was sorted into different categories such as metal, plastic, organic waste, and paper. Plastic and organic waste was recycled into materials like oil (engine) and recycled plastic in different forms to produce new plastic materials. Paper was sold to another plant in Almaty that recycled paper. Electronic equipment is stored in a different building where 5-6 deaf people dismantle them into different parts to sell or recycle it further. They were hired as an organization's initiative to support people with disabilities.

In comparison to a landfill, people in the recycling plant are always busy and working all the time. There is an atmosphere of constant work and noise. While in the landfill the work pace was slower and calmer. The employees on the recycling plant are younger than in the landfill and there are women who work both in the offices, sorting lines and cleaning outside

the plant. I did not conduct interviews on this stage but tried to observe the working conditions and make notes about the operations and functions of the company.

### *LLP Clean City NC*

The next waste management organization was a garbage collecting company LLP “Clean City NC” that won in a tender competition organized by the Akimat to provide services of collecting city garbage. The company is one of the largest garbage collecting organizations that operate in the city. At first, I visited one of the offices in the city center, but I was explained that they have several offices for the residents to process the complaints or suggestions. The main office was in a different place which was also a garage for the garbage collecting machines. In order to have approval for the interviews, I had to present an official letter from the university. A person responsible for the communication with the press and other outside organizations viewed my letter and allowed me to conduct research.

In the beginning, I was asked to go to the human resources manager who would help me to find the participants for the research. The manager called three workers who came to the main office to give an interview. These three persons were working together in one team and they used one machine to service an area in the city. The interviewees were feeling comfortable and agreed to answer my questions. After the interviews, I made a tour around the organization by myself. The buildings of Clean City were very old and needed repairs, but the garbage machines were new and in good condition. Also, there were yellow containers and they were purchased by the company to install in the cities. The city management was planning to put yellow and green garbage containers in Nur-Sultan so that people could sort their garbage into dry and wet waste. The company invested more in technology and new initiatives rather than their own infrastructure.

In comparison to a landfill and recycling plant, the officials from the Clean City NC were more friendly and less suspicious. The security guards were also friendly and even

allowed me to wait in their building with surveillance monitors and other equipment. The company employed people with different backgrounds and age. There were both young people and the elderly who worked in one team. However, I could not observe communication between different groups, and it may be reasoned by their tight working schedule. During the day all garbage machines were driving in the city and they came to the main office during the lunch time to change the shift and in the evening to put the machines in the garage. The fieldwork in Clean City was done in July 2018. There were collected three in-depth interviews with the workers that collect the garbage in the city.

### *The Akimat*

The Akimat of Saryarka district was responsible for providing garbage collecting services and the infrastructure of garbage containers. The fieldwork in Akimat was conducted in July 2018. The department that controls the waste management system in the city consists of two official workers and one unofficial worker. I had an official letter from the university, but it was not checked or requested in the Akimat. Before entering the Akimat building the security guards required my national identification card and a mobile phone. I left them in the special room and was issued an access card. The staff in the Akimat was friendly and welcoming but it was difficult to take an interview since they were always busy. I could organize the interviews with one official worker and one unofficial member. The third female worker agreed to share with me a report about their work and some accomplishments and plans.

The staff in Akimat was very loyal to their mission in the department since all of them told me that they sort the garbage in their houses. Also, they frequently visit the landfill and organize different events in the city to attract people's attention to waste management and the urgency in sorting the garbage. When I asked about the hierarchy in the waste management system one of the workers replied that they are on the top of this hierarchy. Probably, this was

a turning point in thinking about the importance of hierarchy in the research objectives. All collected data and notes were not proving the strong evidence of social hierarchy among the waste management organizations. However, there was still a feeling of inadequacy of data and knowledge of the system.

In November 2018 it was decided to conduct follow-up fieldwork in order to know more about the privatization in the landfill and working conditions of employees in the recycling plant. The landfill management required an official letter and the sample of my questions before approving my presence in the landfill. Then, they rejected my application for the follow-up research, and it seems like the questions about the privatization were considered as too confidential to share it with me. While a recycling plant agreed to interview its workers but firstly the management of the company viewed my questions. There was an intention to talk to deaf people who disassemble electronic waste, but I was not allowed to talk to them. Also, there was not a chance to interview the workers from Mongolia and other countries. The management of the recycling plant told me that they would not even understand my questions since they speak Russian or Kazakh very poorly. I took the interview from three workers from different sections and one of them was an Uzbekistani migrant who worked in the company on a legal base. All three workers gave different answers to the same questions and probably this is because they feared to lose a job.

After transcribing and translating all the interviews and reviewing the notes, it was evident that the main goal of my research has shifted, and I have collected more information about waste and its value. Most interviewers were giving the answers that reveal their perception of waste and their own identity at the workplace. It became evident that the workers in different organizations in the waste management system do not communicate or even compete among themselves. There is no such hierarchy to consider one organization above another one. None of the workers wanted to change their work to another waste

management organization. Almost all the workers were obsessed about their own professionalism, technical and personal skills, and income level. In addition, most of them were worried about the amounts of garbage and their continuously increasing character. Therefore, it was decided to conduct one more follow-up research to consider the problem from another perspective.

The third follow-up fieldwork was done at the end of January. My goal was to take in-depth interviews from the residents of Astana. The participants were recruited by a snowballing method. I tried to talk to people of different ages to capture the differences or similarities in their perceptions. Also, one of the goals was to include a historical account of how waste was managed in the past times. I have collected seven in-depth interviews with people of different backgrounds and ages. However, almost none of them were aware of the landfill and a recycling plant in Nur-Sultan, but all of them equally wanted waste to be managed properly. The younger participants explained new methods of discarding waste, while the older generations recalled how they recycled waste during the Soviet Union.

There were several limitations during the fieldwork research. Probably, the main one is related to gender and age. In a Kazakhstani society the male researcher aged thirty or older perceived differently rather than a female researcher aged under thirty. It took some time to establish trust in the management of the organizations by showing official letters and information about the research. In addition, there are still many issues to explore in Nur-Sultan landfills such as illegal Uzbekistani workers on the landfill, the working conditions before and after the privatization of the landfill, and the migrant workers in both the landfill and a recycling plant. These issues need more time and research to examine because they have political and economic features. Moreover, the recycling plant has recruited deaf people to dismantle electronic waste. It would be also interesting to interview these people and hear their stories.

The data collection process and analyzing it became a difficult process because people have shared with their life experiences, feelings, emotions, and knowledge. I had a feeling of responsibility because I witnessed what kind of emotions people had while telling their stories. Especially, the interviews with the waste management employees in different organizations made me think about the properties of waste. I felt that there is no social hierarchy since the participants did not have any motivations to work in other waste management organizations and they even did not contact people from other workplaces. They were working in these spheres due to the necessity and inevitability of their life situations, but they adapted and enjoyed their work. However, the way they were talking about waste and the way they were talking about themselves made me think about how people value objects and humans. The concept of value became a prism in understanding the perception of waste.

### **Theoretical framework and research questions**

In order to analyze the new research findings, I was not able to use my previously my first readings on work hierarchies, because the initial literature only partly captured the actual dynamics that was observed during the fieldwork, which had more to do with the social value of waste. The concept of value is better explained by David Graeber (2013) who made a distinction between the idea of economic “value” and moral “values” and the relationship between them. According to Graeber (2013), the economic value of the object can be determined by how it is represented in terms of money. While the moral values cannot be determined by money, but it can be recognized through different means like the tokens of honor or certificates and etc. The most important idea is that both economic and moral notions of value have the same goal of achieving power (Graeber, 2013). The way people assess the object depends on their personal views. The same happens with humans: human labor is exploited and depleted during the creation of economic value. In the capitalistic competition for more resources, people lose their social values (Yates, 2011; Wright, 2006).

The workers in the waste management organizations must endure poor working conditions and justify their social values in different ways such as demonstrating their technical and personal qualities. The population of Nur-Sultan throws away their garbage relying not only on its economic value but also on their individual perceptions of waste. While during the Soviet period people had to think about turning in their waste to recycle. There were fewer things thrown away because of the periods of scarcity and poor economic situations. This is also an indicator of how the values of people have transformed over time: people are throwing more things away because – based on their changing social values – more things are considered to be “trash.” More importantly, this phenomenon has a huge effect on the accumulation of waste in the landfills and perception of waste as something useless and valueless. The perception of waste reflects on the waste management organizations, their working conditions, and the workers as well. As a result, the social phenomenon of deterioration of values create real environmental problems in the form of waste and difficulty in appreciating the labor of waste management workers.

The theoretical framework based on the fieldwork data and analyzing more secondary literature transformed the initial research questions. The purpose of the research is to explore the waste management system of Nur-Sultan by assessing its residents’ understanding of waste and its effect on the waste management workers self-perception through the concept of value. The main goal is to investigate the following questions:

- 1) In what ways working in the waste management sphere affect the self-perception of waste management employees and their working conditions, as well as their perception of the city residents?
- 2) How does the concept of “value” (both social and economic) help to explain the understanding of waste of the residents of Nur-Sultan?

In order to answer these questions, there will be an analysis in three chapters based on the primary data such as in-depth interviews, ethnographic notes and secondary data such as the literature explaining the concepts. The first chapter presents the working conditions of four major waste management organizations that operate in Nur-Sultan. There will be examined how people work, what kind of equipment they use, the infrastructure and the way they adapt to the given working conditions. The second chapter will explore how the concept of value can assist an explanation of the self-perception of waste management workers along with the increasing amount of waste in the landfill. Also, the chapter will cover how the waste workers defend their work choice by demonstrating personal and technical skills and recognition by the city administration. There will be examined the future for migrant workers in waste management organizations. The third chapter will present an analysis of how the residents of Nur-Sultan understand waste and what kind of beliefs they have related to waste. Moreover, in order to show the changing social values due to economic regimes in the country, there will be determined the waste management system during the Soviet period. The three chapters will help us to understand more about the waste management system in Nur-Sultan and the people that live in this city.



## Chapter I

### Introduction

The waste management system Nur-Sultan is a largescale structural system that organizes timely waste collection and its disposal in the territory of the city (see Figure 6). The map below shows that Nur-Sultan is divided into four regions such as Yessil, Saryarka, Baikonur and Almaty and the waste is collected according to the territorial divisions (“Clean City NC”, n.d.).

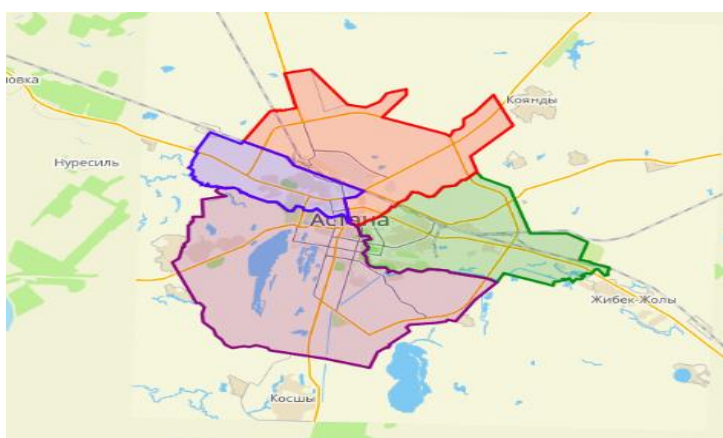


Figure 6. The map of cleaning area of Clean City NC LLP in Nur-Sultan (“Clean City NC,” n.d).

Waste management system is a complex web of interaction between people and waste. In order to have harmonic work of the system there must be mutual understandings and movement in both directions. One of such directions is about considering waste management from human perspective. By considering working conditions of humans, we may deduce multiple ideas about waste and what it represents. Thompson (2017) claims in his *Rubbish Theory* that waste is comprised of the objects with no value. All the objects have either transient value, durable value or no value which is between the former two (Thompson, 2017, p. 4). Different working conditions in four waste management organizations may reveal the relationship between economic and social values in this sphere from the perspective of waste itself.

In this chapter there will be examination and analysis of working conditions in Nur-Sultan Eco-landfill LLP, Clean city NC LLP (garbage collection), Kaz Recycle Service LLP, and the Akimat (municipal government) for Saryarka district. All four of these organizations which are involved in the waste management system try to provide their workers better working conditions depending on their available resources. However, not all of them are equally interested in supplying necessary services for their employees to maintain their health conditions. In this chapter I will analyze some aspects of conditions at work including the presence of security guards, grounds and infrastructure, transportation, medical checkups, uniforms, and the relationships with the employers. I also pay attention to the interaction between employees. Overall, I will argue that working conditions in the waste management system as an economic value may have a negative effect on the social value of its workers. The way how the workers are treated and in what kind of surroundings they work may determine the prestige and status of their work in the society. The reason for this phenomenon may be tightly related with the properties of waste as an object with no value.

### **Workers' health and well-being at the Nur-Sultan Eco-landfill LLP**

Nur-Sultan Eco-Landfill LLP is the major city landfill that is responsible for municipal solid waste and construction waste burial. Depending on the type of work, the working conditions and buildings differ substantially. As a newcomer I found that the workers can be divided into three divisions depending on their main working building. The workers in the office building have different organizational and bureaucratic responsibilities that help to manage all the functions of the landfill. They establish communication and collaboration with governmental and other private organizations, monitor the landfill's human and financial capital, and control environmental issues related to waste management. Another set of workers occupy the garages and this group of people contact waste more often than other employees. They are responsible for keeping clean the territory of the landfill, burying and

ordering the waste on the landfill pit, and controlling all the machines. Finally, there are workers who work in the scale building. They spend the day keeping records of the trucks that enter the landfill territory and measuring the amount of received waste. However, such difference in the work type does not separate the workers from each other because they have a lunch together and share a company's private bus to drive home. Each group of workers had their own small community that worked in the corresponding building. The communication between these group were related to the amount of work they had. Office workers often talk to landfill workers, but scale workers could not talk to them because they could not leave their work places.

The working atmosphere was different in three buildings but there was an impression of an abandoned place because a territory of the landfill was empty and clean. The attitude of all the workers in the landfill to cleanliness and neatness is very significant. It can be noticed from the entrance of the office building. There is a poster<sup>11</sup> on the door of the main building which says “Dirt” and “Please wash and clean your footwear” in Kazakh and Russian languages (see Figure 7).



*Figure 7. The posters on the office building door (own photo).*

<sup>11</sup> After privatization of the landfill the poster was removed.

Despite that this is the landfill which can be perceived as the dirtiest places in Astana, the territory of the landfill is very clean. There is always a person who clean the territory by hand and collect the waste which was dropped from the garbage machines. Also, there were small flower beds near the office building. The flowers were growing in the machine tires (see Figure 8).



*Figure 8.* Flower beds near the office building in the landfill territory (own photo).

In addition, the landfill workers even cut the lawn around the landfill with special lawn mowers. There was a feeling of ambiguity because of the attitude to cleanliness because the neatness of the working place does not mean that it is tidy. It can be seen from these examples that the concept of cleanliness is very ambiguous and subjective. Each person has his own definition and understandings of the cleanliness. Mary Douglas (2010) states that “uncleanness is matter out of place and we should approach it through order. Uncleanness or dirt is that which must not be included if a pattern is to be maintained” (p. 50). Theoretically, the landfill’s main responsibility can be paralleled to Douglas’ abovementioned idea: landfill workers are trying to put all city garbage in a place in order. Physically, the garbage is being put where it must be, but it is still there. It will not disappear and despite that the order is

maintained the place will not become clean. As a firstcomer to the landfill, it was difficult to escape from the feeling of ambiguity and indeterminacy. One had to make clear distinctions for himself what is clean and what is not. On the one hand, logically the landfill was neat because the waste is buried, and the territory was constantly cleaned. On the other hand, a huge mountain of waste was too close, and the odor was too strong that a person may feel dirty even if he/she does not touch anything. The constant smell of waste from the landfill, walking stray dogs, flying gulls, ravens, pigeons and insects may leave an impression that it is impossible to be tidy on the landfill. It seems like cleanliness for the landfill workers was a form of a manifestation about their work. Probably, it was not important for them how much it was clean, but the process itself of constantly keeping neat and clean the area. Roughly speaking, the main responsibility of the landfill workers is to dispose and eliminate waste. Thus, they care about cleanliness of their workplaces to show that they can do their work properly.

The landfill workers care not only about the cleanliness of their workplaces but also their own personal hygiene. There is a shower room in the main office building where the workers can have a shower after work. Also, each worker is given a locker to store clothes and equipment (Fig. 9).



*Figure 9.* The lockers of the landfill workers (own photo).

According to Joshua Reno (2009), there is a “rituals of purification” so that the landfill workers draw a line between their work and home (p. 17). In the case of Nur-Sultan landfill, not all the workers have a shower in the end of the working day. It seems like for Nur-Sultan landfill workers, having a shower in the end of the day is more like being content about the end of a work and accomplishment of the given task. Before the shower they joke, talk to each other and collect their clothes. Also, I had an impression that a ritual of purification can be applied to those people who first came to the landfill, while the landfill workers got used to the landfill odors. Even though the workers were provided with the opportunity to have a shower every day, not all the workers used this service in the office building. Thus, it can be inferred that the landfill workers do not find problematic the odors and dirt from the landfill, and it is something one can get either get used to or overcome if need be.

It seems like wearing protective clothes and facial mask must be obligatory for all landfill workers since this place contains all the municipal solid waste of the city as well as construction waste. One cannot be sure what kind of waste has been thrown away to the garbage container: it can be dangerous or toxic for human health. For example, the landfill for municipal solid waste contains organic waste which after degradation produces leachate. The substance such as leachate is dangerous for the environment and humans (Read, Hudgins, & Phillips, 2001, p. 235). Thus, the workers may wear masks to protect themselves from the hazards. However, none of the workers prefer to wear masks because they find it uncomfortable. The landfill workers are provided with special equipment and machines to receive the city garbage and bury it in the landfill. However, it is difficult to say that the machines are new and do not need any repairs. They are also given special uniform and footwear to protect the body from injuries.

The landfill has its own bus that transport both the office and landfill workers. Almost all the workers live on the right bank of Astana. They live in the outer areas of the right bank

which is closer to the landfill. The transportation to the landfill is difficult for the landfill workers but they do not feel worried about it. Some workers come to the landfill on a private car, while others use public bus by making several transfers. There is also a company's bus that drive in the right bank of Nur-Sultan and transport workers to the landfill. The company's bus driver has a friendly relationship with all landfill workers. It can be also noted that both the workers in the office building and workers on the landfill itself use company's bus to drive home. In the end of the working day they gather in one bus, joke and talk to each other. There was an impression that each person has his own role: one person always tells jokes, one person helps a driver to find the best way, some people keep silence but seem to enjoy the company. All the workers respect each other despite the age, job responsibilities and gender. It seems like providing a company bus was a good idea to keep friendly atmosphere in the collective and to help saving time, money and energy of the workers for transportation purposes. There is no a canteen or cafe in the landfill, but the workers can go to the canteen of the recycling plant which is not so far. However, in most cases they bring food for lunch from home and have a meal in the kitchen of the main office building. The women in the office building take responsibility for the kitchen and they may prepare a tea for the head of the landfill even though it does not seem to be in their job duties. In addition, women can be sent to buy additional furniture or choose technology: I witnessed how a woman from the office was sent to buy a refrigerator for the office workers. She was accompanied by a company driver to transport refrigerator to the landfill. However, there was not any complaints or discontent from the women's side, and they created a friendly and respectful atmosphere in the office by performing such domestic gendered labor on the workplace.

It is also important to note the condition of the buildings because it may have an effect how people feel at their workplaces. There are two main buildings on the grounds of the landfill: an office for paperwork, and a scale building, where manual labor happens. The

office building and the scale building are painted green outside, a color which may be meant to invoke the idea of nature or clean energy. The buildings both look good outside, but the inside interior is not comfortable for the workers. Both buildings require repair works because they are very old, filthy and uncomfortable. The offices in the main building are situated in a chaotic order, and the workers have lunch in poor conditions. All the furniture in the office building is very old. The garages are empty buildings to leave the machines and do some repair works. There are also a small room in the garages where the landfill workers can sit and have lunch. It seems like the office building could be more comfortable and cleaner in comparison to other buildings because people have lunch there and take a shower. The office workers spend the whole day in the building, and they had to work in a very old structure. On the one hand, the owner of the landfill may think that the repair works in the buildings are not needed because it does not increase the efficiency of the landfill itself. On the other hand, there might be a financial reason such as lack of budget for the repair works in the buildings. In any case, the buildings are also a part of working conditions of the landfill workers and they could be better if their owner was willing to do repair works.

Since all sorted garbage of the city is buried in the landfill pit, it becomes a dangerous place where many different toxic elements can explode or leak. During the summer periods, when there is a very hot temperature outside, there can be explosions and fires on the landfill itself. The landfill workers told me that they can extinguish small fires by themselves, but when the territory of fire is large, they must call fire brigade to extinguish it. Also, to minimize such risks of explosions and fire they put pipes inside the landfill pit so that toxic gases may go to the air. The landfill pit is a very dangerous place which may cause harm to workers' health in any moment. Despite all the dangerous effects and toxic gases, the workers do not use masks while working on the landfill pit. During the conversation with the workers they told me that the company does not provide any services to recover their health



conditions. The workers are not economically valued by the landfill employers as a result they are not supplied with better equipment, machines, social insurance and other benefits of the workplace.

Another important point about the working conditions of the landfill workers is related to issuing milk. During the conversation with workers they told me that the company provides each worker with 0,5 liter of milk for each working day. The workers say that the milk is issued because of the toxicity of their working place. This practice is called “*молоко за вредность*” which means “milk for toxicity”. According to the order of Ministry of health and social development (2015), the milk or the same amount of other product is issued for the workers who contact toxic elements in their workplace (Labor Code). This practice of issuing milk was observed during the rulership of Lenin. He signed an order to issue milk for the starving workers of Putilov’s company in 1918 (Izmerov, 2011, p. 761). Since then, this practice has been on a legal level even when Russian and Kazakhstan became independent states. The usefulness of milk in the toxic workplaces is a debatable topic and the workers of the landfill have doubts that it may help to sustain health in such toxic conditions (Izmerov, 2011). Some workers confessed that they do not drink milk. In addition, it has not been proved that milk helps to keep the organism from the toxic effects of the waste. There might be a possibility that it is cheaper and easier to provide milk. However, there could be found some alternative methods to sustain workers’ health instead of continuing such ambiguous practice which has been used since the Soviet period.

Another structural aspect of working conditions that directly effects workers’ health and well-being is about working schedule of some of the workers in the landfill. Before the privatization, the office workers and the landfill workers had six workdays: Monday - Friday from 9 am till 5pm and on Saturday from 9 am till 3pm. After the privatization, all workers have changed their schedule and now they have 5 work days Monday - Friday from 9 am till

6pm. The workers who call their position as “мастер” (“expert”) climb to the landfill and show the garbage trucks where to leave the garbage. The working schedule of the experts is different from rest of the workers because they must work for 24 hours per one shift. Then they have two days to have a rest. During the interviews the experts told me that they work for 24 hours, then they use one of the two days to sleep and have a rest and the other day they can do their daily routines. Considering that the experts had to control the whole territory of the landfill pit alone, it seems to be exhausting and difficult to work for 24 hours without having a rest. They also told that when they have a lunch, the landfill is left unattended and the garbage trucks may unload the machines in any order. The experts do not have a car and they must walk on the landfill pit the whole 24 hours a day. As a result, with the toxicity of the landfill waste and such exhausting working conditions the experts on the landfill are putting in risk their own health. In addition, they cannot change their working schedule because the owner of the landfill can easily find other people who would agree to work in such schedule. It seems like the experts are trapped in their working conditions because they cannot lose a job due to their age. The experts confessed that it is difficult to find a job in Kazakhstan for elderly people because job owners do not hire a worker who will retire soon (Talap, personal communication, July 27, 2018).

According to those who have worked in the landfill for a longer time, their working conditions are also related to the weather in Astana. The experts confessed that during the rainy days it is very difficult to work on the landfill because the garbage mixes with mud and the experts have difficulties in moving on the landfill pit. Sometimes the garbage machines get stuck in the mud. It is also difficult to work on the landfill territory during snowy days because it deteriorates the vision from the garbage machines. Also, snowy weather affects the communication between landfill workers and garbage machine drivers (Talap, personal communication, July 27, 2018). The workers were not complaining on their working

conditions, but they were patiently telling what kind of changes they want to work more efficiently and safe. One of the experts told me that previously he was working as a security guard on the entrance to the landfill. Then he was offered to work as an expert on the landfill pit and he decided to try this job (Talap, personal communication, July 27, 2018). Thus, the experts do not have any formal training and the company does not spend money on training the employees on their professional development or at least security level. It seems like the landfill owner could pay more attention to the company's workers because they work in extreme conditions which is dangerous to their health.

The expert of Nur-Sultan Eco-landfill had the most difficult jobs in the company and the most need for their working conditions to be improved. For example, the owner of the landfill could provide cars for the landfill expert so that they will move around the landfill in the car. Also, there could be a strict regulation of the health condition of the workers and their uniforms. It seems like the workers must be checked whether they wear masks, helmet and protective uniform. In addition, the landfill owner should assign more experts for each landfill because during a lunch time the landfill is left unattended. If there could be more experts for each landfill pit, they could help each other during one shift and back up when they go to lunch or dinner. Also, the expert's work is very risky because they work alone even at night. It is not safe to work alone on the landfill pit during night because there are stray dogs on the landfill that may bite and spread disease. It seems like there must be reorganization of the job responsibilities of the experts on the landfill.

The working schedule of other workers in Nur-Sultan Eco-landfill is not organized in a proper way too. The picture below shows the manipulator which is used to lift heavy objects and transport it (Fig. 10).



Figure 10. Manipulator (own photo).

The driver of the manipulator told me that most of the time he works outside of the territory of the landfill. He has a fixed working schedule, but it depends on when he finishes the task. A driver confessed that sometimes he must do work which is not related to the landfill works. He told me that the head of the landfill may ask him to transport his own private objects for the construction works. Instead a manipulator's driver can ask a day off when he needs it. It is not always the case, but such situation does occur despite the violation of the rules (Bakyt, personal communication, July 27, 2018).

- А манипулятор что это?

— Это машина кран, он грузит, возит. Получается всему начальству возишь, бывает задерживаешься, не оплачивается, но, когда надо берешь отгул. Часы если перерабатываешь, когда надо тебя отпускают. Людям помогаешь, потом, когда надо тебя отпускают.

(- What is a manipulator?

- This is a crane-machine. It loads and carries. Thus, you carry the objects for all your bosses, sometimes you stay late at work, it is not paid but you make take a day off when needed. If you overwork your working hours, they leave you when you need it. You help people, then when you need it you may leave. (Bakyt, personal communication, July 27, 2018)

On the one hand, a driver and a head of the landfill are breaking the rules of the company. On the other hand, they mutually benefit from helping each other. However, the

driver of the manipulator is taking risks by executing the landfill owner's private orders because in case of emergency or health risks the driver will not be able to protect himself.

The landfill is a dangerous working place that needs a good organization of health security and safety instructions. There were some posters in the corridor of the office building about the security measures and instructions in case of injuries, fires and other dangerous situations. However, it seems like the company does not pay enough attention to such safety issues. The manner how the employees talk to other people may be indicative of their working conditions. For example, during the first days of the interviews, even though I explained my research goals when I first came to the landfill, the interviewees were very suspicious and did not want to talk too much. They joked with each other that if they told me something wrong, they would lose the job the next day. The employees often did not want to answer even simple questions that do not have any provocative or ambiguous meaning. Also, their attitude to me depending on the mood of their boss. For example, if their boss was gentle to me, then they were friendly and open with me. If the boss was talking to me nervously, then the employees were trying to avoid a conversation with me and were rude in some cases. There was a feeling that the employees of the landfill had stringent relationships with the head of the landfill. Most of the employees were not feeling themselves secure in their position at work. Thus, it was highly important for them to maintain good relationships with the boss. It is difficult to work in such conditions when the employees try to please their employer all the time because it creates stressful atmosphere in the workplace.

A low quality of working conditions may be correlated with the level of education, wage and age among the landfill workers. During the conversation with an expert who work on the landfill pit, he told me that his wage is 150,000 tenges (Talap, personal communication, July 27, 2018). Most of the workers are elderly people between 55-63 years old. They do not have an incentive to lose or change the job because of their pre-retirement

age. It is difficult to find a job for an elderly people in Kazakhstan because employers are not interested in elderly worker who will leave the working place soon. Also, most of the workers did not attend university. Most of them were in the Soviet army after completing school program. Thus, the landfill owner is not interested in providing better working conditions because he can find many other workers who would agree to work in such conditions. Some landfill workers who drive machines and work with special equipment have professional college education. There might be a difference in the wage level, but they are still treated equally as other workers without formal university education. It was difficult to talk about the education level with the landfill employees and they were trying to avoid the questions about attending the university or college. However, in comparison to workers in garages, the office workers had university degree but still no privileges such as medical insurance or better working conditions.

The main aims of the fieldwork were to find out whether there is a social hierarchy among the waste management workers and what are their self-perceptions. However, when I came to Nur-Sultan Eco-Landfill, I questioned if it is important what people think about themselves and if it is about social hierarchy. Everyone in the landfill was exposed to the same garbage, the same strong smell from it. Most of the employees were working for many years in the landfill. Despite the poor working conditions of the landfill workers, they keep working in this company because their understanding of waste differs from that of others. The waste for the landfill workers is the same as dirt for Mary Douglas. It is “a matter out of place” (Douglas, 2010, p.50). The landfill workers physically organize the order of waste on the landfill. Thus, they dispose waste and make the city clean. Despite the social importance of their work, these people are not valued by their employers as a result they work in poor conditions.

### **Working conditions in Clean City NC LLP**

Clean city is a major garbage transporting company in Nur-Sultan which is responsible for timely waste collection and transportation. The working conditions for the garbage collecting company are completely different. In comparison to landfill workers, the workers of Clean city NC LLP have more controlled and well-established working conditions. For example, the workers are obliged to wear special uniform before starting to work. The uniform consists of a cap, boots, trousers and coat with a company's name and gloves. The boots protect legs from injuries while other clothes protect the skin (Fig. 11).



*Figure 11.* Clean city workers in a special uniform (“Clean City NC”, n.d.)

The uniform is checked because it shows the order in the company and how the company protect the workers from injuries. The garbage collecting firm's workers wear the boots to protect the feet from any physical harm during garbage collection process. After wearing the uniform, they must pass medical check to ensure that their physical and emotional health are in good state. Even a slightly high blood pressure or smell of alcohol may become a reason to fail the medical check. It seems like such procedures show that Clean

city NC LLP is trying to provide good services not only for their own workers but also for the city residents.

*-Теперь давайте перейдем на вопросы о работе. Как вы пришли в эту сферу?*

*- У меня супруга здесь работает, уже давно, около 13 лет, автодиспетчером. Она меня позвала сюда, и я пришел. В принципе, по ее разговорам я знаю эту работу. Условия труда мне нравятся: график работы понравился, поэтому я пришел сюда.*

*(- Let's move on to questions about your job. How did you come to this sphere?)*

*- My wife works here for many years, approximately 13 years. She is machine coordinator. She invited me here and I came. Basically, I knew this job from her. I like the working conditions: I really liked working schedule and that is why I came here. (Zhumabay, personal communication, July 23, 2018)*

Thus, working in the company like Clean city NC LLP becomes more attractive for the newcomers because they provide a good schedule, medical checkups, uniform and other benefits. In addition, the team of workers in Clean city NC LLP like their working conditions because they are structured, and every worker clearly knows his responsibilities. During the interview with one worker, he told me that he likes working in Clean NC LLP because the working day is organized, and each worker has his own task. He likes that each day he comes to work, and he knows what to do step by step. They have a structured schedule to perform each day and if there is something different from the schedule, they contact operator by telephone and resolve the problem.

*-Что вам больше всего нравится в вашей работе?*

*- В первую очередь условия труда. Нас обеспечивают, форменная одежда есть у нас, так как производство вредное, каждый месяц получаем молоко, заработная плата день в день, четкий график, потому что не беспокоиться, утром пришел на работу что делать, куда ехать, уже знаешь свой график, есть у тебя свой район, поэтому вот это все нравится. Четкая организованность. Когда все четко организовано, человек не волнуется, пришел на работу, знает, выполнил свою работу. С другой стороны, выполнил свою работу хорошо тебя никто не дергает лишний раз, не вызывает, вот это мне нравится в работе.*

*(- What do you like most about your job?)*



*-First of all, working conditions. We are provided with company uniform, since we work in a hazardous sphere, we are given milk each month. We receive our wage on time, we have clear schedule. You do not worry, you come to your work in the morning and you know what to do, where to drive and your own schedule. You have your own region. That is why I like this all. Clear organization. When everything is organized, a person does not worry, he comes to work, knows what to do and accomplish his job. On the other hand, when you accomplish your task nobody bothers you all the time, does not call you, this is what I like in my job. (Zhumabay, personal communication, July 23, 2018)*

One shift is considered a work schedule from 6 am in the morning till 2 pm in the afternoon, then from 2 pm in the afternoon till 10 pm in the evening. During one shift each garbage machine drive to the garbage sorting plant two-three times. Their work is coordinated by the operator on the phone when it is needed. It seems like strict schedule and good organization of the working day affect the working attitude of the company's staff. They feel seriousness of their work and responsibility for each task (Zhumabay, personal communication, July 23, 2018). Thus, organization and coordination of a working day is a significant aspect of working conditions for the staff and company's management.

The organization of the employees and distribution of responsibilities ensure efficient working conditions in Clean city NC LLP. The office workers such as a director, economist, accountant, operators, coordinators and many other specialists work in the main office in a different location. There are also small offices in the city that provide services for the people and resolve problems in their assigned territory. The garbage is collected by garbage collecting crews that drive in the city during the whole day (Fig. 12).



Figure 12. A garbage truck in the main office of Clean city (own photo).

Each crew consists of three people: one driver and two workers that move garbage containers. When there is a new worker, he works with a more experienced employee to gain knowledge. The garbage transporting crew spend the working day in the machine and they do not have too much time to have a rest during a working day. The crew may stop in the café which is on the road to the landfill territory and have a meal. During the interview with one of the workers, he told me that he gets satisfaction from completing the work (Aidan, personal communication, July 23, 2018).

*-А что вам нравится больше всего в вашей работе?*

*-...Ну работа не скажу, что она тяжелая, ну хоть какой-то вклад приносишь тому, чтобы, где ты живешь, чем ты дышишь, когда видишь это все хочется конечно же, не такие молодые, семейные, дети есть семья есть, чтоб они тоже держали в чистоте, там, где живут. А не в бардаке, в грязи. Приятно смотреть после своей работы смотришь и просто приятно что чисто и аккуратно...*

*(- What do you like most about your job?)*

*-The work is not so difficult, but you contribute to the [cleanliness] place where you live, what you breath. When you see all this, of course you want that they keep the place where they live clean, not in mess and filth. We are not young, we have families, children. It is pleasing to look after your job that it is clean and neat. (Aidan, personal communication, July 23, 2018)*

It is important for the crew to collect all the garbage from their assigned territory. There is also an additional machine that collects the garbage from the areas where other machines could not access during their shift. Thus, each crew wants to complete their task without leaving the garbage for the additional machine (Aidan, personal communication, July 23, 2018).

The infrastructure of the company also has a positive effect on the working conditions of the Clean city NC staff. The workers who collect the garbage are provided with good machines, medical and technical check-ups, and a good working schedule. The main office buildings, canteen and the garages of the machines are old structures that need renewal. The company buys new garbage trucks and containers. Perhaps the work conditions of the office building are not important for the employees who collect the garbage because they do not spend time there, or perhaps the office building was not prioritized by the owner of the garbage collection company because it did not have a large impact on the efficiency of the garbage collection process. However, there are still office workers who need good working conditions to provide a better coordination for those who are on the road. For example, some workers need to increase their computer literacy and qualifications because all work in the office building is done on the computers. When I first came to Clean City, I was asked to help to type the addresses and contact numbers in Excel by one of the employees in the office. However, there were many employees who tried to help this person, but nobody could fix his problem so that he asked every person who passed by his table. I had an impression that the office workers must be trained to work with basic computer programs to increase their productivity and efficiency.

When I first entered the office building, I had an impression that it was like there was not enough light and air. The walls and floor resembled an old Soviet time building. It seems like the main office building of Clean city NC LLP was a hospital because there was a

window for food distribution in the wall (Fig. 13). The window was closed and has not been used for many years.



*Figure 13.* The food distribution window in the wall of the main office building (own photo).

Like Nur-Sultan Eco-landfill, Clean City company has a private bus that transports employees to the main office and back to their homes. The main office of Clean City is situated very far from the city center. According to security guards of Clean City, once this region was one of the most dangerous places in Nur-Sultan so that no one could walk alone in the evening in this region. However, nowadays it is safe despite that infrastructure such as roads and bus stops are not developed very well. It is very difficult to come to Clean city NC LLP by bus because bus stop is far from the company and you will have to walk some time to reach this place. It is more comfortable to come on a private car or a taxi. There is no asphalt on the road to the company – there are just dirty roads. Thus, during rainy days it is difficult to drive. However, it is not problematic for the garbage machines to drive on the roads without asphalt. There are also four small offices in the city which are situated in different parts. I have visited one these, which was a small office with two workers. They receive calls and meet with people to resolve their problems related to garbage transportation in their areas. According to one of the workers, they receive too many calls and people come to the office almost every day. There is a constant flow of incoming requests and questions that never stops. These office workers have comfortable working places with a computer and desk

but due to the amount of work they were looking very stressful and nervous. Despite that they were not directly working with the garbage, they seem to have emotional stress due to many factors such as amount of work, infrastructure of the main offices, and time pressure.

In the end of the working shift, each crew must return to the main office and wash the garbage machine. They wash the machine and prepare it for the next crew which will use it the next shift. In the end of the working day, approximately after 10 pm all the garbage machines are parked in the garage of the main office building. It should be noted that each crew cares about the machine as if it was their own property. Like employees of Clean city NC LLP, the garbage machines are also checked for any mechanical problems and quickly fixed by the specialists in the company. It is highly important to check the garbage machines and maintain them in good condition because all the work of the company depends on their quality. Thus, the workers clean and repair garbage machines very carefully (Fig.14).



*Figure 14.* A Clean city worker is washing the garbage truck in the end of his shift (own photo).

Despite all the organization and work process working in the waste management sector is very difficult not only physically but also emotionally. During the conversation with a worker from a crew, he told me that to work with the garbage a person should be prepared:

- Вы помните самый трудный рабочий день?

*-Самый трудный день у нас каждый день. Действительно, у нас трудная работа. Работа связана с физическим трудом, работа связана с мусором. Для этого человек должен быть хоть немножечко готов, убирать за кем-то выброшенный мусор. Работа у нас тяжелая.*

(- Do you remember the most difficult day in your work?)

*-Every day is a difficult day for us. Indeed, our job is difficult. The job is related to physical labor, the job is related to garbage. A person should be a little bit prepared at least to clean up someone's thrown garbage. Our job is difficult. (Zhumabay, personal communication, July 23, 2018)*

It can be seen from this excerpt from the interview that despite all the provided technology and machines, collecting someone's garbage is emotionally difficult. It seems like the problem lies not in the garbage itself, but in personalizing it and thinking that it is someone's garbage not just a garbage as an abstract idea. Thus, provision of machines and human capital facilitates only physical part of work process, and there still will be emotional part which cannot be easily supported.

Some people come to work in Clean city NC LLP because of the good working conditions and stability that it ensures. During my fieldwork in this company, I met one person who was applying for a job in Clean city NC LLP. This person has been working by buying meat in Kostanay and selling it in Nur-Sultan. Unfortunately, he lost his job and money because of the fluctuations in dollar-tenge exchange rate. He has a family and out of desperateness he came to Clean city NC LLP to ask for a job. He was motivated by the idea that by working in Clean city NC LLP he would have a stable work and timely wage. This job does not need any previous experience except for willingness to work hard (Bahtiyar, personal communication, July 23, 2018). Another interviewee who has been working in fire department of Nur-Sultan for twenty-three years had the same reasoning. He was on a retirement and decided to work in Clean city NC LLP because of the organization of work and timely wage (Aidan, personal communication, July 23, 2018).

Clean city NC LLP has a good reputation as a company that ensures stability and safety. The workers feel confident about their job because they clearly know their job responsibilities and time schedule. They are sure that if they accomplish the task, they will not be asked to do extra work. The employees of the company are content with such working conditions that it supplies. The company is focused more on a practically useful capital such as new garbage machines, new containers, new technology, and good security guards.

Clean city NC LLP hired a security company that ensures security of the main office and parking for the machines. There were two security guards in the cabin: one head of security and one security guard who had lower position. They had a video surveillance in the cabin where they could see everything happening on the territory of Clean city NC LLP. They did not have guns, but they had clubs to use in case of emergency situations. In the cabin there was a particular “car list” of the office workers who could easily drive onto the territory of the company. Also, security guards were taking records of entering garbage machines and controlling any movement in the entrance. I had my official letter from the university which was checked by both security guards. The head of the security guard accompanied me to the assistant of the head of the company. Entering Clean NC LLP was not problematic for me because of the official document, but without an official document I could not get an access to the company territory. In comparison to the security guards of the Akimat for Saryarka district, Clean city NC LLP had a more trained and professional security staff. In the, the security guards were checking only for the weapons and other dangerous items. They had a metal detector gate and clubs for protection. The only document that was necessary to enter the Akimat building was a national identification card. The security of the private company and governmental organization may show us the difference in the communication level between people and these entities. For the governmental organization it is highly important to communicate with public because they are considered as public servants. By contrast, Clean

city NC LLP is a private company and all the technology, buildings and other equipment belong to one person. Thus, the latter is strictly controlled by the security guards. Also, the existence of such security guards guarantees the safety of the workers in the company and their working conditions.

The employees of Clean city have slightly better working conditions than the landfill workers. They do not have to spend time near the mountain of garbage and feel the strong smell from it. However, their work has its own flaws such as emotional aspect of cleaning. They collect people's garbage, and everyone sees it. It is emotionally difficult to clean someone's waste and there is no way to be prepared for this. It may also imply that waste has a social dimension: it is still someone's waste despite that it has been thrown away long time ago. It seems like cleaning someone's waste may be less emotionally harmful if a society acknowledge garbage collectors work. There must be mutual respect and communication between two sides which can be provided by the Akimat. Despite that working conditions in Clean city is better than in the landfill, the workers confessed that it is physically and emotionally exhausting job.

### **Kaz Recycle Service LLP**

Kaz Recycle Service LLP is the only recycling and sorting plant in Nur-Sultan that receives all the city garbage, sorts it, recycle and then transport it to the Nur-Sultan Eco-Landfill. The working conditions in Kaz Recycle Service LLP are very ambiguous because some workers are provided with some benefits while others are not. For example, the workers on the sorting lines do not have a uniform, masks and special gloves. They wear different clothes and simple gloves to sort the garbage. Their body is not protected from injuries. Also, they do not wear masks despite the toxic and unpleasant odors of the garbage. However, the recycling plant has recycling sectors where workers are better equipped. For instance, the workers in the recycling sector wear special uniform, gloves and helmet. They also have



glasses to protect their eyes from any injuries. In addition, deaf workers who recycle electronic waste do not have any uniform too. They work in their daily clothes and do not wear anything to protect themselves. They are provided with instruments, table and chairs. There are no translators near the deaf people, and it is not clear how other staff communicate with them in the company. The least equipped group of workers were the workers on the sorting lines despite that they are most exposed to garbage and its toxic effects. Before entering the sorting sectors of the plant, I was issued all the necessary equipment such as a helmet, clothes and mask. However, I could not wear mask because nobody was wearing it even the person who was showing me the plant organization. I had an impression that people on the sorting lines would wear mask and protective clothes only if one of them took initiative to wear uniform or it was imposed by the company.

The employees and the owner of Kaz Recycle Service LLP practice religious rituals on their workplace every two or three months. My interviewees told me that the owner of the recycling plant is a religious person who reads Namaz<sup>12</sup>. He makes sacrifices several times during a year and the meat is used to prepare the meals for the workers. Also, the employees of the company gather as one collective depending on the department and sacrifice a sheep on the workplace (Aslan, personal communication, November 5, 2018).

*-Жұмыс орныңызда қалыптасқан дәстүр немесе ырымдар бар ма?*

*...Жақында завод бойынша сойды ғой. Еттен плов андай-мындай істедік. Суымен алады да, обед уақытында балаларға таратады. Құран оқытады. Бұл традиция, постоянно болып тұрады. Жыл сайын 2-3 айда болып тұрады...*

*(-Do you have any established rituals or belief on your workplace?)*

*...They slaughtered for the whole plant recently. We prepared plov<sup>13</sup> from meat. They distribute the meal with water to boys during a lunch time. They read Quran. This is a tradition, it takes place every time, each 2-3 months during a year. (Nurzhan, personal communication, November 5, 2018)*

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<sup>12</sup> In Islam, every Muslim has to pray five times a day which is called Namaz.

<sup>13</sup> A dish with rice and meat.

All these sheep sacrifices are done in belief that worshipping God will positively affect their work process. I had an impression that the workers enjoy having such religious feast at work. It seems like the religious practices of the owner of the plant ingrain trust and respect in his employees. This may also help to establish better communication and relationships between the owner of the plant and his workers. In any case, gathering together and having meal make people closer and more organized since they take part in this ritual.

The main pride of the recycling plant is the technology used to sort and recycle the garbage. The workers are provided with the innovative machines that facilitate their work. Despite that the capacity of the machines is very low and the amount of the garbage is significantly high, all the machines are working in full capacity to sort and recycle the waste. There are also many billboards with instructions and garbage examples on the walls. For example, the workers on plastic recycling machines use different plastic types such as plastic bottles, plastic packages and other depending on the material of the garbage. Some plastic is made of high-density material, while others are made of low-density ones. The workers may sort and recycling by looking at the examples on the walls (Fig. 15). There is also a possibility that these examples are done for the new-comers, journalists and other people who came to see the work of the recycling plant.



*Figure 15.* The examples of the plastic types on the walls (own photo).

The infrastructure of Kaz Recycle Service LLP has many advantageous sides that positively results on the working conditions of the workers. For example, the recycling plant is divided into different separate buildings such as a building for sorting the garbage with a section for recycling organic waste, a building to recycle plastic, a building to store machines and to do repair works, a building to recycle electronic waste, and an office. The workers are protected from the toxic smell of other production processes because they are in different buildings. They can go to the office building to have a meal and resolve any managerial questions. However, the odors of the garbage are everywhere due to the huge amount of waste. The waste is stored outside in the form of briquettes until they are transported to the landfill. There are also many flying birds around the briquettes that search for food (Fig. 16).



*Figure 16.* The building for sorting the garbage (own photo).

Despite the huge amount of waste, the separate buildings ensure a good organization and safety of the working process in the recycling plant. Since Kaz Recycle Service LLP is a private company, it was not easy to access the building. To enter the territory of the recycling plant you must have an official document with a permission. The recycling plant is strictly

controlled by three security guards at the entrance. They were taking records of entering machines and people. Also, they had surveillance cameras which could be seen from the computer monitor in their cabin. In comparison to the landfill securities, it was more difficult to enter Kaz Recycle Service LLP. In Nur-Sultan Eco-landfill LLP there was only one security guard who was sitting in the small cabin without any technological equipment. It was easy to enter the landfill territory just by talking to a security guard and asking his permission. While in Kaz Recycle Service LLP I brought my permission letter and waited when they were talking to their head of security. Then they contacted a company manager who accompanied me to ask permission from the head of the department which is responsible for the secure working conditions in the recycling plant. It can be seen from this example that recycling plant has a good organization of the security of the company because the recycling plant has expensive products such as oil and gas. Also, this example may show us that there is a hierarchy among the workers of the security company because to allow access to one person they had to contact several people and even ask for an official document. In addition, recycling company hired a security providing firm to ensure their safety, while a landfill owner just hired a person who would agree to check the coming machines and people. Thus, there are different attitude to security organization of the private entity which can be demonstrative of the working conditions and amount of budget in two companies.

The working conditions in the recycling plant is different from that of Clean city or Nur-Sultan Eco-Landfill. The workers of the recycling plant understand that they are doing socially and environmentally helpful work: sort and recycle the garbage. They are provided with better equipment and technology. The waste for the workers of the recycling plant is not someone's garbage but also a raw material to produce new goods. That is why their vision of waste completely different from the employees of other organizations.

### **The Akimat for Saryarka district**

The Akimat for Saryarka district is one of the municipal organizations which is responsible for providing public services only for the Saryarka district of Astana. The workers in the Akimat for Saryarka district have better working conditions than those who directly contact with waste. Their main responsibility is to provide communication between private waste management companies and people. They control the development of the infrastructure for the efficient waste management system. Before entering the building of Akimat, all the staff and guests must leave their mobile phones in the security room and take them while exiting the building. Thus, it is supposed to be the case that the workers are not distracted by the mobile phones and they cannot spread confidential information from the building of Akimat. They can use simple mobile phones without the camera and internet connection. On the one hand, it is an ambiguous rule because restricting the use of smartphones does not guarantee security and work efficiency. On the other hand, without the mobile phones the workers of the Akimat distract each other by talking face to face and by many other tasks. It seems like the issue with mobile phones should not be considered as a problem for the governmental officials since it cannot be the only source of leakage and distraction among the governmental workers. Also, refraining from the use of smartphones in the Akimat building does not provide better working conditions for the workers.

The Akimat of Saryarka district needs to increase their number of workers in the waste management sector due to big amount of work per each worker. Despite that there is a big department which is officially responsible for the environmental issues of Astana, only two workers are in the waste management sector. The problems of the whole city about the waste management is resolved by only two official workers. There is also one part-time worker who receives calls from i-Komek hot line. Nur-Sultan residents may call 109 which is the number of i-Komek (literally from Kazakh “i-Help”) and ask for any help that Akimat workers may

provide. One of such services is receiving suggestions and complaints from city residents about waste collection services in Astana. During the conversation with the workers they told me that they must do many extra works which sometimes is not related to their sphere (Nurbolat, personal communication, August 8, 2018). Consequently, it has a negative effect on their work in waste management sector.

The infrastructure of the Akimat building has many positive aspects that beneficially affects work process. For example, the building is secured by the security officers on the entrance. The entrance is strictly controlled and recorded by the manager who also keeps smartphones of the staff and guests. The building is surrounded by a small park with a fountain. The workers are in the comfortable offices with all necessary technology such as computers, telephones, printers and others. It seems like the workers feel satisfied with the infrastructure because they joke, talk to each other from time to time, and walk to other offices despite that they have a huge amount of work. The Akimat workers should not have any problems about the infrastructure of their workplace, but the challenges they face are amount of work and shortage in human capital.

The workers of the Akimat is the group of workers who contact waste the least in the chain of waste management. The Akimat brings ideas, communication and provide management for the efficient waste management. Improving working conditions for the Akimat workers will not ameliorate waste management sector but may positively effects on the efficiency of the Akimat itself. There could be increased the number of workers who are responsible for the waste management sector in Akimat. Also, it would be better if the workers were performing the tasks directly related to their profession without distracting to other tasks of the department.

## **Conclusion**

In conclusion, each company provide different levels of working conditions and there is different quality. Some companies pay more attention on security of the organization, while other companies are interested in the better production process. Nur-Sultan Eco-landfill LLP provide minimum services and working conditions to their employees. The landfill owner is not interested in motivating his workers to work better and more efficiently. Probably, this can be explained by the available budget and resources of the company. While Clean city NC LLP try to develop their working conditions and provide all the necessary equipment, machines, medical checkups, security guards and good organization of working process. However, there is still emotional and psychological aspects that should be considered. The next company is Kaz Recycle Service LLP which pays attention on their security level, organization of the working process and provision of the uniform for some of the workers. The governmental organization such as Akimat is trying to supply their workers the best working conditions in terms of technology, infrastructure and safety. However, the amount of work per each worker is so high that the workers do not have time to enjoy the supplied conditions. All four companies have advantages and disadvantages in terms of working conditions but despite this fact the employees of all four organizations work scrupulously with good intentions to accomplish work. Thus, working conditions may have a substantial effect on the working process but it is more important what kind of people work in the company and what kind of goals and intentions they have.

The main aim of this chapter was to show how people work in the waste management system and what motivates them to work with the garbage. Especially, one of the primary goals were to examine different working environments, people and their attitudes to work. Overall, the waste management system of Nur-Sultan is not well financed area, but the problem of disposing waste is being solved on minimal terms. The workers try to keep working despite that they are provided with minimum working conditions. The factors such as

toxicity, smell and dirt are not important for them. The working conditions in the waste management sector may convey many ideas about waste and its effect on how people work with it. It means that waste with its multiple characteristics have devaluing feature that make the waste management workplaces poorly financed and supplied with necessary equipment and social conditions for people. Since people work in such workplaces, their profession is not perceived as prestigious or attractive. Thus, the lowered economic value of labor as well as working conditions influence the social values of the society making the work in waste management undesired one. In addition, a good financing would be helpful to create better conditions where people would enjoy their workplaces. In addition, there could be changed the work characteristics by focusing more on environmental goals like improving the situation with recycling or keeping the nature green and pure, instead of representing waste management as only cleaning the area from garbage. These kinds of changes would transform the waste management sector in Nur-Sultan by making it more attractive to people.



## **Chapter II**

### **Introduction**

In order to have an objective view of waste management system of Nur-Sultan it would be helpful to consider thoughts and ideas from different perspectives. The employees working in waste management have their own opinion about increasing amount of waste. They have various reasons such as changing value systems, better living conditions and intensifying urbanization. In this section, there will be examined what waste management workers think about waste through (1) changing values among the Nur-Sultan residents, (2) association of humans with waste, and (3) the Uzbekistani labor migrants in the waste management sector of Nur-Sultan. All of these ideas combine into one concept of value that explain many forms of waste and how it is expressed in our society.

The concept of value is very inherent in the discussion of waste management. This section will examine the waste management sector from the perspective of waste workers. There will be evaluated how an increase in waste is seen for the employees in the waste management organizations and what they think about population of Nur-Sultan that produce it. The analysis of these ideas will help to formulate the concept of value and its changing nature. Changing values means that due to improved economic and social well-being of the society people do not keep things and value them. In addition to this, their cultural values have changed that has resulted in the increased amount of waste in the landfill. These ideas will be analyzed from the perspective of waste management workers which will allow the readers to evaluate the situation from the other side of garbage containers.

#### **Changing values from the perspective of waste management workers**

The workers of Nur-Sultan landfill observe the increased amount of waste over years and reason it by the intensified urbanization process. One of my participants is Talap who has been working in the landfill for ten years. In the first three years he worked as a security

guard in the entrance, later he was offered to work as an expert<sup>14</sup> on the landfill. Talap thinks that the amount of waste is increasing due to city growth over time. As he puts it:

*- Ең басында келгенде полигон қандай болды?<sup>15</sup>*

*-Мусор машиналары аз болды. Мусор аз болды. Қала өскен сайын мусор да көбейіп келеді.*

*(-How was in the landfill when you first came here?*

*-There were few garbage trucks. There were less waste. The more city grows, the more waste it generates. (Talap, personal communication, July 27, 2018)*

In the above conversation it can be seen that my interviewee observed how the amount of waste was increasing in comparison to his first working years. When he was a security guard, he was able to see how many machines were entering the landfill and after becoming an expert he could observe how much waste was produced by Nur-Sultan residents. Talap thinks that the city has been growing over ten years and the amount of waste was also increasing respectively. It seems like it is difficult to realize that the accumulation of waste until a person directly and physically contacts it. Later my interviewee explains how the waste problem became tangible to him in terms of its continuity and volumes.

Despite the fact that waste management may seem only about burying the garbage, there are many peculiarities that facilitates or hinders the work process. For example, Talap explains that their work difficulty depends on the weather conditions in Nur-Sultan. He answers to the question about his most difficult day at work in the following way:

*-Жұмыстағы ең қиын күн есіңізде ме?*

*-Ауа райына байланысты, жазда жаңбыр көп жауса, қыста боран болса, сол кезде машинаны кіргізу қиындау. Машиналар көп келеді, жолды тазалап үлгере алмай қаламыз.*

*-Do you remember the most difficult day at work?*

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<sup>14</sup> An expert or “мастер” (literally master) is a person who shows the garbage trucks where to unload the garbage in the landfill. Also, they are responsible for cleaning the road on the landfill.

<sup>15</sup> Nur-Sultan as a capital of Kazakhstan attract many people with different backgrounds and nationalities. I have prepared my interview questions in three languages: English, Kazakh and Russian. The Uzbekistani and some Kazakhstani employees have chosen to answer in Kazakh language since they feel more comfortable to speak in Kazakh. While other workers have chosen to answer in Russian. There might be no direct relationship, but the Russian speaking employees had slightly better working conditions, some college education and were more open during the interviews.

*- It depends on weather. If there are too much rain in the summer or snow storms in the winter, then it is difficult to let enter the machines. There are too many garbage trucks, we even do not have time to clean the roadsю (Talap, personal communication, July 27, 2018)*

From the above interview excerpt there can be understood that the experts have difficult and responsible job since they assist garbage trucks in the landfill. Their work depends on the weather conditions that cannot be affected or manipulated. They do not use cars at work and the weather like rain and snow storms prevent them from properly cleaning the road for the garbage machines. Previously, Talap was an outside observer who only was watching entering machines, now he is an insider and accompanies the machines through their road to the landfill pit. The work experience of the waste management laborer is another perspective on the increasing waste problem that clearly demonstrates the accumulation process, change and despair. The closer a person works with the waste, the more he understands about its nature and it shapes his/her vision about the changing habits, values and lifestyle of the people who produce waste.

In addition to urbanization process, there is also the attitude of residents to waste that affect the amount of garbage in the landfill. Another interviewee Marat, who has been working twelve years in the landfill as an excavator driver has his own explanation for the increased amount of waste. He blames Nur-Sultan residents' attitude towards waste. Also, he thinks that there must be a cultural approach to waste so that it would be easier for the landfill workers to bury it. During the conversation he answered:

*-А что вам не нравится [в вашей работе]?*

*-Не нравится то, что город много сорит, у нас мусора много, вот это вот одна из проблем. Были бы люди попроще, относились бы культурнее к мусору может быть и у нас меньше мусора разлеталось бы.*

*(-What do you not like [in your job]?)*

*-I do not like that the city litters too much. We have too much waste. This is one of the problems. If people were simpler, their attitude to waste was more cultural<sup>16</sup>, then maybe we would have less flying waste. (Marat, personal communication, May 23, 2018)*

It can be seen that it is important for Marat that people behave in a more cultural way. Probably, he implied that it would be more efficient if people could throw away their waste more deliberately and thoughtfully. In addition, it can be a reference to their work: the waste makers should be conscious that other people will work with their waste. Thus, by recognizing this fact, Nur-Sultan residents must change their attitude and be more accurate with their garbage. Marat also mentioned flying waste<sup>17</sup> on the landfill territory and indirectly pointed to the problem of widespread use of plastic bags. The reduction of plastic bags could help to decrease flying waste in the territory of the landfill. In addition, reusable bags could be the most useful alternative for the plastic bags. According to Karmarkar and Bollinger (2015), the decision to replace plastic bags to reusable bags positively influences the shopping behavior of the consumers. The authors found that once people choose to use reusable bags, they try to buy environmentally friendly products and keep caring about the ecology (Karmarkar & Bollinger, 2015). Therefore, it would be more useful to teach the residents of Nur-Sultan to use reusable bags instead of the plastic bags so that they will become more aware of the environmental problems and their everyday habits.

Increasing amount of waste is reasoned not only by the attitude of people towards garbage, but also due to their improved economic and social conditions. In further discussion interviewee Marat expressed his opinion on this issue:

*-Как работа на мусорном полигоне влияет на ваше мировоззрение, взгляды?  
-Я не скажу, что что-то во мне изменилось, позиция и взгляды, я же изначально сказал, что мусора МНОГО, я не знаю или от того, что народ так хорошо живет, или от того, что не ценят.*

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<sup>16</sup> The participant implied more respectful attitude towards waste.

<sup>17</sup> Here flying waste means flying plastic bags.

*(- How does work in the landfill affect your views or perceptions?  
 - I would not say that something has changed in me, position or views, as I said in the beginning, there is TOO MUCH waste, I don't know, either people live so well, or they do not valueio (Marat, personal communication, May 23, 2018)*

In the conversation with Marat he was astonished by the amounts of waste. He reasoned it with the improved economic well-being of the residents of Nur-Sultan that negatively affected their social norms and perception. The landfill employee suggested that people do not value things. In order to understand this social phenomenon a close examination of the concept of value would be helpful. David Graeber (2013) claims that it is important to distinguish between two different notions such as value and values. A value is an economic term that stands for measuring the quantity in money terms. While values are regarded as the “ideas about what is ultimately important in life (“values” such as truth, beauty, justice)” (Graeber, 2013, p.224). The author suggests that anthropology as a field can link these terms to one idea. In both cases the concept of value represents how an object or phenomenon “generate the power it embodies” (Graeber, 2013, pp.224-225).

The link between value and values is better explained in the *Chicago value theory* which consists of five principles. Firstly, it is stated that labor is the form of action that can produce value or wealth. The labor itself is itself assessed through wages. While the form of labor like housework cannot be assessed and it produces values. However, it does not mean that the importance of housework is decreased because it should be treated as a “real value-producing labor” (Graeber, 2013, p.224). Secondly, both terms are tied through the notion of symbolism. For example, the value of any object can be determined by the money. Thus, the money has symbolic importance. The values are determined by different symbolic objects. The author mentions the tokens of honor that represent the values such as “honorable conduct” (Graeber, 2013, p. 226). Symbolism allows to determine the significance of both value and values. Thirdly, since the concept of value is comparative, it needs an imagined form of public like society. People living in one society create the value and provide the

conditions for its materialization in different forms. Fourthly, Graeber (2013) analyzes the values in terms of cosmologies. There are different universes that have agents who possess the powers. All agents seek the values whatever they do while exercising their power. This kind of theorization show that the value is the eventual goal of any relationships. Finally, there are presented “metavalues” and “infravalues” (Graeber, 2013, p.233). Metavalues is the concept that used to identify values between the universes. While infravalues represent the values within one universe. It is always possible that infravalues become metavalues at some point (Graeber, 2013, p.233).

Kathleen Millar (2018) exploits Graeber’s notion of value in her book about the waste pickers in the landfill of Rio de Janeiro which is called Jardim Cramacho. *Catadores* are the waste pickers in the Brazilian dump. Millar (2018) explains that linking economic and moral characteristics of value may be applied to how the *catadores* understand the idea of living a good life. One of the heroes of her book worked seven days a week on the dump and rarely had a rest. He saved money and built a house but later died of cancer without being able to enjoy his new house. Most of the *catadores* could not save money and spend it very quickly for multiple purposes like debts, urgent family situations and poor living conditions. Thus, the economic and moral notions of value explain that the *catadores* had no choice but to find ways to live well in the conditions of extreme poverty (Millar, 2018).

While during the better economic conditions people do not appreciate things and the value of goods and products are diminished. Any good or product can be easily substituted by another new good or product. Thus, there is no need to keep it or appreciate so much. This also demonstrates how people changed socially and how their values have changed. In addition, Herod, Pickren, Rainnie and McGrath-Champ (2013) claim in their article that people should distinguish between devaluing and devalorising things to understand the concept of value. According to the authors, an object is devalued “when a commodity is

replaced with a newer model and yet it is either still functioning and/or its constituent parts may be reused (either by taking them out and putting them unchanged into another commodity or by processing them and turning them into raw materials for new products)”, while devalorised object is “when a commodity literally wears out and its constituent elements cannot be used for anything else” (Herod et al., 2013, p. 379). Thus, the landfill worker Marat was talking about devaluing the products by Nur-Sultan residents due to either their improved economic well-being or poor appreciation of goods or both.

It is difficult to say whether this social and economic change is a positive or negative phenomenon, but from the environmental and anthropological perspective it is deteriorating the nature and the mind of people. Hence, the concept of value is very deep rooted in the waste management sector because depending on the changing values among people the amount of waste is increasing in the landfill of Nur-Sultan. There is not only personal qualities and attitudes that have changed but also how people evaluate the objects. Most things are losing their value and are thrown away easily. However, along with the objects, humans are also losing their value and are associated with waste. Therefore, the concept of value may reveal how humans can be regarded as waste in the contemporary world.

### **Becoming humans-as-waste and its expressions**

The association of humans with waste is tightly connected to the concept of value since people working with waste may also be considered as waste. Thus, in this section there will be examined how waste management employees frequently confront negative public opinion and disapproval of their occupation choice. In order to defend their occupation and identity they search for social recognition that can be expressed in many forms. For example, some workers need social recognition in the form of acknowledging technical skills, while others feel proud of receiving certificates of honor from the government and workplace. Other group of people gain social recognition by reasoning that waste is the source of income and some

workers are supported by their friends and families due to inevitability of the situation. All of these forms of relating humans to waste and their ways of defending their own identity challenge the concept of value. There is an ambiguity of relating humans to waste. On the one hand, it would seem to be unethical and inhumane to relate human beings to material object by associating them with the properties of these objects. On the other hand, it may also be natural and social process of association and labeling people. It may happen not only in the waste management sector but also in other occupations. Thus, it is important to expand the discussion of value and values in order to understand human nature and their decisions.

The concept of value is further expanded by Michelle Yates (2011) who has theorized the relationship between waste and humans in the age of capitalism. The author thinks that capitalistic regime necessitates people to produce “surplus value” (waste) and to increase “surplus population” (people as waste) (Yates, 2011, p. 1681). She implied that due to capitalism people are exploited and their body is used to produce more goods and services. When the worker loses his job and becomes unemployed, he/she is considered as human-as-waste. The author thinks that theorizing in this way expands a discussion of waste because waste is perceived as something produced by humans but there was not any examination of when humans become waste themselves (Yates, 2011).

The relationship between humans and waste can be also examined in terms of the waste management workers’ job features. It would seem that the negative perception of waste workers may arise due to their work with waste. In particular, if waste is considered as something without value and needless, then waste management workers are working with valueless objects and they are not creating the value either. Thus, since they are not producing value, their workplace specificity reflects on their identity as something negative and worthless. On the other hand, production of value does not guarantee that there will not be association with waste. Melissa Wright in her book “Disposable Women and Other Myth of



Global Capitalism” examines (2006) how Chinese and Mexican female workers in the factories are regarded as waste. She explains that these women’s body is used to produce goods so that later they become disposable until the factory hires a new worker. In Wright’s words they become “a form of industrial waste” that are no longer valuable (Wright, 2006, p.2). These women are making valuable goods and their own value is high in the beginning. However, over time the worker women lose own value as an employee and are easily replaced. Thus, under capitalism people may be regarded as waste and exploited even if they produce value.

In search of value the waste management workers search for “social buffers” (Ashforth and Kreiner, 2014, p. 90). They define social buffer as “individuals or groups who insulate against stigma threat” (Ashforth and Kreiner, 2014, p. 82). One of the ways of establishing social buffer is searching for recognition by the society. The employees that work with the clients may need recognition and support from the clients as a social buffer to protect themselves from the social stigma<sup>18</sup>. A belief that an occupation is considered by a society as dirty, polluted or corrupted may negatively affect the work process so that the employees will not think about their job valuable and significant (Ashforth and Kreiner, 2014). Thus, the waste management workers need support of the society to buffer from the stigma of dirty occupation.

Social buffers can be expressed in terms of seeking recognition of the society through acknowledgement of skills. For example, one of the interviewees Marat was proud of his certificates of honor for his good performance at work. In the following conversation he emphasizes how his work was evaluated by the city governor and management of the landfill:

*-А вот самый лучший день [в вашей работе]?*

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<sup>18</sup> A concept of stigma was proposed by Erving Goffman in 1960s. Social stigma can be defined as inability of an individual or group of people to conform with the social standards accepted in a society to satisfy its moral stance (Kleinman & Hall-Clifford, 2009).

— Это когда первый раз меня наградили почетной грамотой. Это было посвящено, что-то проводилось в Астане, но мы были участниками поневоле. В прошлом году у нас было ЭКСПО, не с ЭКСПО связано, до этого было мероприятие. Азат Сартаевич вызвал меня и вручил грамоту, она была подписана Акимом города Астаны. Но это была одна из знаменательных дат, но вообще если считать таких знаменательных дат, то их очень много. У меня таких грамот штук 5 лежат.

*(-What about the best day [in you work]?)*

*-This is when I was awarded by certificate of honor. It was dedicated to, something was happening in Astana, but we were the involuntary participants. Last year we had EXPO, not related to EXPO<sup>19</sup>, there was an event before it. Azat Sartaeovich called me and gave the certificate, it was signed by the akim<sup>20</sup> of Astana. But it was one of the memorable dates, but if we count such memorable dates, there were many. I have 5 such certificates (Marat, personal communication, May 23, 2018)*

Marat is pleased to have many certificates since this is one of the ways how his work is valued and appreciated at least by the city government. He collects these official documents that praise his work and they morally and socially support his identity as a waste worker. These certificates of honor make him feel valuable and needed for a society despite that it is not clear how they might be practically helpful. Anyway, this kind of recognition from the city government is needed to support waste workers and express the gratitude for their work.

Another way of establishing social buffer is to be recognized through gaining trust. For example, one of the workers in Clean City whose name is Aidan responded that he gained trust of the company's management by proving his technical skill in repairing machines:

*-А вообще, как вы пришли в эту сферу?*

*- Я пришел, увидел по телевизору бегущую строку объявление, по объявлению пришел сюда, был набор водителей, пришел сюда как бы посмотрели, дали машину, но не на ходу, я ее начал собирать и заметили что есть способности, эти 12 лет я работал и на камазе и на ивеке, и на мане. За 12 лет брал 4 новых машин.*

*- How did you come to this sphere?*

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<sup>19</sup> EXPO is an international exhibition that took place in Nur-Sultan between June-September 2017. The topic of the exhibition in Nur-Sultan was called "Future Energy" that aimed sharing international experience and innovations in energy conservation. More details can be found: <https://www.bie-paris.org/site/en/2017-astana>

<sup>20</sup> Akim is a person who holds a position of a governor of the city or region in Kazakhstan.

*- I came, I saw an advertisement on the rolling ticker on television. I came here by an advertisement. There was a recruitment of drivers. I came here and they looked at me, gave me a car but it was not working. I started to repair it and they noticed that I have skills. These 12 years I worked on Kamaz, Iveca and on Man<sup>21</sup>. I took 4 cars in 12 years. (Aidan, personal communication, July 23, 2018)*

From the above conversation it can be seen that Aidan feel proud of driving four cars in twelve years. A garbage machine is a technical vehicle that requires technical skills and experience (see Figure 17). The more cars are given to a waste collector, the more responsibility is demanded. In addition, the waste worker is recognized as a worker who has appropriate level of skills and experience. Thus, Aidan was exceptionally satisfied for being trustworthy and skillful worker in the company.



*Figure 17. Garbage trucks in the main garage of Clean City (own photo).*

Moreover, personal qualities are also valued as well as technical skills. Some workers in the landfill are recognized as good workers due to their personal qualities such as punctuality, healthy lifestyle and conscience. For example, Bakyt who works in the landfill as a driver of a manipulator with four-year experience expressed his opinion:

*- У вас бывают сложные дни?*

*- Стараемся как-то не придавать значения таким дням. Я когда уходил, они своего водителя наняли. А мне сказали садись на Камаз. Я никаких плохих действий не совершал, не спросив меня переводят на другую машину. Вот я просто заявление написал и ушел отсюда. Полтора года меня не было здесь, другой пришел. Наш директор опять позвал, я сел обратно на свою машину.*

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<sup>21</sup> Kamaz, Iveca and Man are types of machines.

*Просто видели, что я добросовестно отношусь к работе. Водку не пью, работу не пропускаю.*

*(- Do you have difficult days?*

*- We try not to mention such days. When I left [the work], they hired their own driver. And told me to sit on Kamaz. I did not do anything bad, they transferred me to another car without asking me. Then I wrote a resignation letter and left. One and a half year I was not here, another man came. Our director invited me again, I sat on my own car again. They just saw that I work conscientiously. I do not drink vodka, I don't miss work. (Bakyt, personal communication, July 27, 2018)*

Thus, the waste workers defend their own rights in front of the management, and this is also one way of making other people to acknowledge one's value as a human and worker. In most cases the value of waste management workers as a labor force is decreased because they can be easily substituted by another new worker. Consequently, the waste management workers are vulnerable and cannot properly defend their rights and working conditions. The only way to stay on the workplace is by proving to the management the skills and personal qualities which again demonstrates that they are trying to acknowledge their own value.

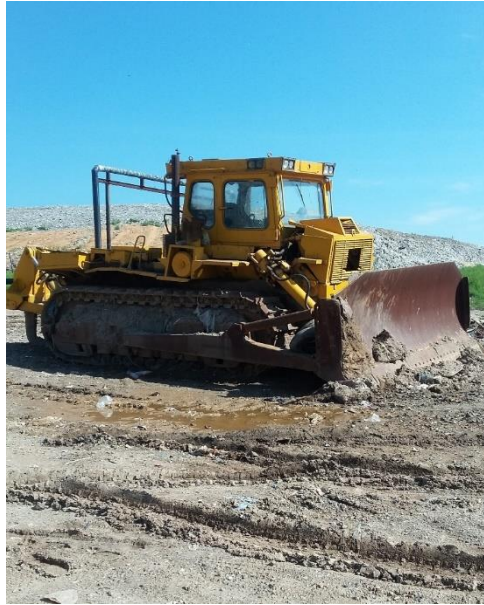
Stigmatization of waste management workers sometimes happen through direct challenge of their job choice. Some workers prefer to reason their occupation by earned salaries. For example, an interviewee Marat who work as a wheel loader driver (see Figure 18) confront public opinion in the following way:

*-Знают ли ваши родственники, где вы работаете? А соседи?*

*-Знают. Так как я живу в благоустроенном доме, соседей не знаю если честно. Родственники все знают. Я же иногда держу такую позицию. Иногда бывают что здесь проездом проезжают и сразу чувствуют, что здесь полигон. Я говорю «зато деньги не воняют». Если вы такие принципиальные что я где-то там работаю, тогда деньги не берите с меня.*

*- Do your relatives know where you work? What about the neighbors?*

*- Yes, they do. Since I live in the apartment complex, to be honest I don't know my neighbors. All the relatives know. Sometimes I hold such position. Sometimes people pass by and feel that there is a landfill. I say, "but money does not smell". If you are so principled that I work somewhere then do not take money from me. (Marat, personal communication, May 23, 2018)*



*Figure 18.* Wheel loader in front of the garbage mountain (own photo).

In the everyday life money is described as something dirty and negative. However, Gustav Peebles (2012) examined that from the anthropological perspective the attitude towards associating money with filth must be changed. The economists consider money from its quantity and from the positive side, the anthropologists should collaborate and study filthiness of money from the qualitative perspective as accumulating fertility and wealth. The author thinks that dirt should be linked to productivity and fruitfulness. Thus, when people say “dirty money” they have to understand it as this association implies money productivity, fertility and wealth (Peebles, 2012). When Marat was saying that “money does not smell”, he tried to assert the productivity of the money earned from the work in the landfill. Despite that people tend to transfer the landfill’s smell and dirt to people and objects they possess, there must be seen the core purposes and motivations. The interviewee Marat in his attempts to defend his workplace showed the hypocritical attitude of people such as holding arrogant views about the landfill’s features (e.g. smell, dirt and filthiness) but still using the money came from the work in the landfill.

Sometimes the waste management workers are supported by the public. For instance, Zhandos who work in the Clean city as a garbage collector explained that his friends and relatives never disapprove his occupation choice but try to understand him and support. However, their support is more like accepting the situation as if it is something inevitable:

*-Знают ли ваши друзья, члены семьи, родные о вашей работе?*

*- Да, конечно, знают, все знают.*

*-Что они говорят?*

*- Никто не осуждает, это мой выбор, с другой стороны, говорят «да, кто-то должен убирать за нами, если мы не можем».*

*(- Do your friends, family members, and relatives know about your work?)*

*-Yes, they all do.*

*-What do they say?*

*-Nobody criticize me, this is my choice. On the other hand, they say “yes, someone must clean after us, if we can’t.” (Zhandos, personal communication, July 23, 2018)*

It can be seen from this discussion how waste management workers may be stigmatized in a friendly manner. It seems like when people say that someone must clean after them, they are dividing and isolating those working in the waste management sector like “us” and “them”. However, it is not a criticism but a polite way of acknowledging someone’s choice and expressing support. There is still persist a sort of association with waste and separation of identity as if some group of people may litter, while other group must clean.

The association of human with waste is not only depend on their occupation but also on the territory, ethnicity and character. Emily McKee (2015) examined Bedouin group and Jewish group on the south part of Israel and found that people may be associated with waste in terms of these features. An ethnic group may be isolated from the rest of society due to their character and ethnicity because they are considered as dirty, lawless, and filthy. The way how Bedouins live made Jewish people to live apart from them and exclude from their society (McKee, 2015). Thus, it is not necessarily that only occupation such as waste worker may affect a person’s identity but also the way of life and community. The more waste and dirt are

accepted in the community, the more people keep distance and isolate from these groups. The association of humans as waste may be determined by their attitude and social norms related to waste or filth.

The association of humans with waste is a phenomenon emerged from capitalistic regime that exploit humans and throw them away as waste. People working in the waste management sector frequently associated with waste because they work with waste. They experience social stigma that only decreases their value as a labor force. To confront social stigma the waste management employees, search for recognition in different forms such as demonstrating their personal qualities, technical skills, collecting certificates of honor and even by earned amount of wage. In some cases, they are not openly criticized but supported by the families and friends. Therefore, waste management workers face pressure from the society and their example challenge the concept of value. Humans are regarded as waste not only because of their occupation, but also due to the inability to find a good job in their homelands. The labor migrants can be also stigmatized as waste, especially in the waste management sector, because they were not valued in their own country and came to Kazakhstan in search of better life.

### **Labor migrants in the waste management sector**

As an extension of Michelle Yates ideas (2011) about surplus values and surplus population created under capitalistic regime, it would be useful to examine the labor migrants in the waste management sector. It would seem that labor migrants are also surplus population that could not find a job in their own country. They have been forced to move to another country to find a job since they are not valued as a labor force in their homeland. Thus, labor migrants can be also considered as “humans-as-waste” but in a larger scale: between different countries. In this section there will be a brief analysis of how the labor migrants from Uzbekistan work in the waste management sector both legally and illegally. The examples

will prove that the Uzbekistanis who work legally may succeed in their workplaces by integrating into the society or getting a promotion at work. Also, there will be an examination of illegal Uzbekistanis' occupation in the landfill territory. Finally, it will be examined how the cultural values of labor migrants from Uzbekistan differ from that of local population. The main idea of the section is to show how the Uzbekistani migrants are valued in the waste management sector and examine their challenges and different fates.

The waste management organizations such as recycling plant and landfill employ people of different nationalities that came from Uzbekistan, Mongolia, Kyrgyzstan and other countries. Labor migration from Uzbekistan is a widespread phenomenon in the territories of Russia and Kazakhstan. According to Alisher Ilkhamov (2013), during the Soviet period and after its collapse there was not so intensive Uzbekistani migration. The population of Uzbekistan mostly moved within their country and emigration to another country was not popular. By the end of 1990s the situation has changed, and people started to leave Uzbekistan. The author claims that this is due to governmental reforms in Uzbekistan that changed the trade patterns in the country by limiting bazaars and trade on the borders. Most of the population involved in trade lost their source of subsistence and were forced to leave the country due to such economic and political factors. In addition, Kazakhstan and Russia's economies were expanding during that period that attracted labor force from other countries. Emigration to Kazakhstan and Russia was the optimal choice for the Uzbekistanis to find a job because it does not need any entry visas. Moreover, there were no language barrier since most Uzbekistani citizens could talk in Russian and could easily communicate with the citizens of Kazakhstan and Russia (Ilkhamov, 2013, pp. 259-260).

During the research fieldwork it was found that most of the Uzbekistani workers settled in Kazakhstan many years ago. There were only Uzbekistani interviewees during the fieldwork, and they spoke well in Kazakh rather than Russian. All of the interviewed labor



migrants did not have higher education and came from poor rural areas. The landfill employees told that there were the Uzbekistani workers that collect metal and other materials on the landfill itself. Their work is prohibited and considered as illegal, but they frequently come to the landfill. There was no chance to have a conversation with these illegal migrant workers because the landfill employees explained that they will refuse to talk to anybody. However, the Uzbekistani migrants that were legally employed by the landfill and recycling plant agreed to have an interview. One of such workers is Zharas who is feeling integrated in the collective of the landfill:

- *Алғашқы жұмыс күніңіз есіңізде ме?*
- *Есімде. Бәрі жақсы болды, Қабылтаймен таныстым. Жұмыс істеп көңілді өтті күн. Басқа жерге ауыстырғым келмейді оны да жазып қой.*
- *Сіздің жұмыстағы ең жақсы күн есіңізде ме?*
- *Жұмыста отырыстар көп болды. Грамоталар алдым. Премия беріп тұрады. Барлық мейрамдарда премия беріп тұрады.*
- *Бұл жұмыста сізге не нәрсе ұнайды?*
- *Маржангүл ұнайды. Әңгіме айтамыз.*
- (- *Do you remember your first work day?*
- *Yes, I do. Everything was good. I got acquainted with Kabyltai. The work day passed joyfully. Write that I don't want to change my workplace.*
- *Do you remember the best work day?*
- *There were many gatherings at work. I received certificates of honor. They give bonuses. They give bonuses on all holidays.*
- *What do you like on your workplace?*
- *I like Marzhangul. We have conversations. (Zharas, personal communication, May 23, 2018)*

Zharas was a laborer in the landfill who has been working there for eight years. He was 55 years old at the moment of interview. During the interview he was laughing and joking with other laborers and it was evident that he was feeling relaxed in his collective. Zharas is an example of how a labor migrant is well integrated into host community. However, the Uzbekistani migrants like him usually work in the low-paid and physical intensive jobs such as construction sites, waste management and other. These kinds of jobs do not require any specific knowledge and the Uzbekistani workers are employed as a low-cost labor force. The value of the labor of the Uzbekistani workers are low due to factors like (1)

the landfill manual work does not need specific skills and (2) the Uzbekistani workers are socially perceived as low paid labor force.

Despite that the Uzbekistanis in the waste management system are paid low wages, there are still some prospects to grow professionally. One of such examples is Mahmud who has been working in the recycling plant since 2013. Mahmud is 40 years old and he has moved to Kazakhstan in 2008. In the beginning he was employed as a laborer for various tasks. Now he is promoted as an operator who controls the sorting line and workers. It was evident why recycling plant's management promoted Mahmud because he was talking about his duties with interest and enthusiasm (Mahmud, personal communication, November 5, 2013). This is an example of how a good and diligent worker may improve his position in the company without university degrees. The value of a labor force is evaluated through his working performance and personal qualities.

While some Uzbekistani migrants work legally on the landfill, some of them work illegally by collecting different materials. Probably, they choose to work illegally due to higher levels of earnings despite its riskiness and illegality. These illegal migrant workers became a sort of waste pickers on the landfill. According to Joshua Reno (2016), the difference between “waste makers” and “waste workers” is the “inability to see or smell anything but waste” (p. 58). The official workers on the landfill do not scavenge on the landfill, while for the illegal workers the garbage mountain is the source of wealth. The landfill employee Bakyt briefly explained the situation with the illegal Uzbekistani workers on their territory:

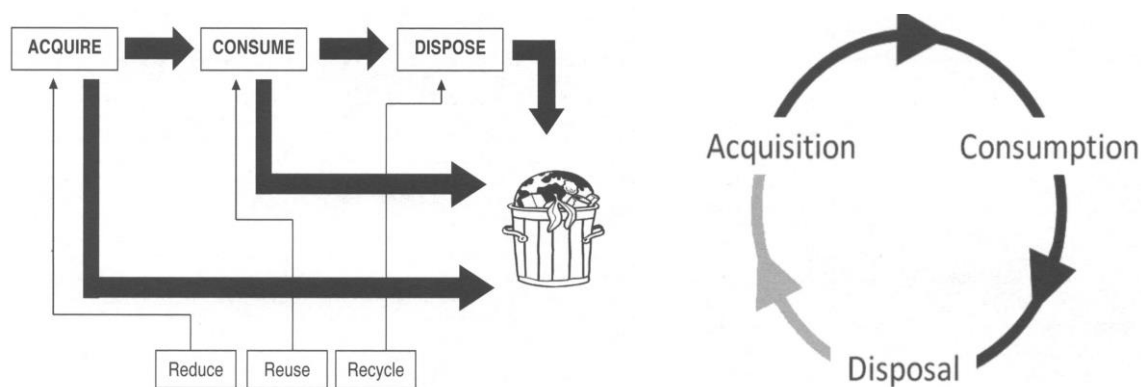
*-А Узбеки есть?*

*-Узбеки есть на полигоне, они там собирают, а так на нашей работе их нет. Их гоняют, полиция гоняет, но они там работают, целлофан собирают и тд.*

*(-Are there the Uzbeks?)*

*- There are the Uzbeks on the landfill. They collect there but they do not work for us. They are driven out, police chase them, but they work there, collect the cellophane and etc. (Bakyt, personal communication, July 27, 2018)*

Despite that scavenging considered as illegal and prohibited, there some positive aspects of this phenomenon. According to Brosius, Fernandez and Cherrier (2013), scavenging of “inorganic waste” changes the linear perception of consumption cycle into a circular (p. 286). In the linear consumption a product goes to the garbage after acquisition or consumption phase (see Figure 19). While in the circular model after acquisition and consumption, there is disposal and again acquisition stage which implies scavenging process. A circular model may seem to be more environmentally friendly way of disposing waste, but scavenging may also entail diseases, injuries and other risks. It is not safe to scavenge in the landfill since the containment of the landfill garbage as well as any garbage may not be sanitary. The landfill in Nur-Sultan is considered as a private organization and that is why it is prohibited to scavenge on the territory of the landfill. In many countries of the world such as Argentina, Egypt, India the waste scavengers work as waste pickers (Chronopoulos, 2006; Hayami, Dikshit, & Mishra, 2006; Kuppinger, Hourani, & Kanna, 2014). They have different social status but their contribution to the well-being of the society is significant (Kuppinger, Hourani, & Kanna, 2014). In Kazakhstan, waste picking in the city and in the landfill is unacceptable and not widespread like in the abovementioned countries.



*Figure 19. Linear (on the left) and cyclical (on the right) views of consumption (Brosius, Fernandez, & Cherrier, 2013, p. 287).*

Despite their occupation that decreases their value as a labor force, the Uzbekistani workers possess strong cultural values. These cultural values can be seen from their attitudes to food thrown away in the landfill. When population of Nur-Sultan throw away food due to different reasons (e.g. expired shelf life, rotten or spoiled, sanitary rules, inefficient food consumption habits), the Uzbekistani migrants on the landfill cannot justify the reasons for wasting food. For example, in the conversation with the landfill worker Marat, he expressed it in the following way:

*-Какие вещи обычно люди выкидывают?*

*-Все подряд. Здесь узбеки удивляются, они поражаются удивляются почему вы хлеб выбрасываете?*

*(-What kind of things do people throw away?*

*-Everything. The Uzbeks here astonish, they are amused “why do you throw away bread”? (Marat, personal communication, May 23, 2018)*

The interviewee mention that the Uzbekistanis working in the landfill are astonished about bread being thrown away. Food waste is a common thing in the landfill, but it seems like the products such as bread is valued differently. In most cases Kazakhstani people respect food made from wheat such as bread, cookies or pies. It is culturally unacceptable to throw away bread and when a person sees a piece of bread or cookie on the ground, he quickly puts it somewhere higher. When it is needed to throw away stale or expired bread Kazakhstani people put it in the bag and hang on the garbage container. There also might be historical reasons such experienced food deficits during wars and famines that drive former Soviet Union citizens to respect bread. Therefore, this metaphor attributed to the Uzbekistani workers is an important one, because it expresses disapproval, of a level of waste that has become extremely disrespectful and out of line, with certain cultural values.

It can be seen that the Uzbekistani migrants in the waste management sector have different experience and fates. Those working legally relatively succeed by integrating into local community and gaining more friends. Also, legally working Uzbekistanis may be promoted at work by proving their personal qualities and devotion. While those working illegally may be chased by the local police, but they keep scavenging on the landfill to sell different materials and earn for life. All of these people came to Kazakhstan to search better life and be objectively valued as a labor force. They were forced to leave their own country due to unemployment and low wages as humans-as-waste. That is why they astonish to a thrown away bread on the landfill: they can see value in things that other people could not (Reno, 2016). Therefore, the concept of value is deeply rooted in the waste management sector that define their work in theoretical terms.

## **Conclusion**

In conclusion, this section shed light on the thoughts of waste management workers and their work experience. A constantly increasing amount of waste reveal the economic and social conditions of the population in Nur-Sultan. The waste management workers express their concerns that people in Nur-Sultan throw away too many things and believe that there should be changed attitude to waste. This phenomenon can be explained by employing the concept of value. The value of many goods and products are deteriorated due to changing values of the society. Better living conditions make people to value less the objects so that their own perceptions and personal qualities are affected. In addition, the concept of value is applicable to humans because the waste management workers may be regarded as people with no value. This may lead to association of humans with waste that result in the stigmatization and isolation of people working in this sphere. Stigmatized workers in the waste management sector developed many forms of defending their identity such as searching recognition through collecting certificates of honor, acquiring technical skills or proving personal

qualities. They can be also supported by the society but there are still signs of disapproval. In comparison to local workers, it is even more difficult for the labor migrants from Uzbekistan, Kyrgyzstan and other countries working in the waste management organization of Astana. They are forced to work in Nur-Sultan due to their diminished value of labor in the homeland. They can be also associated with waste because of the migration due to desperate economic and social situation in their own country. Therefore, from the perspective of waste management workers this field is closely related with the concept of value and how people understand it. The value of goods and humans became accountable and that is why there is not only environmental degradation, but also of the perceived degradation of society and culture.

### **Chapter III**

#### **Introduction**

Upon analyzing the thoughts and ideas of waste management workers it is now important to consider the ideas of the population that produce waste in order to have a full picture of how the concept of value might be used by the society. This chapter will investigate perception of the population in Nur-Sultan about waste. The ideas of people are presented in three sections such as (1) Nur-Sultan residents' perception of waste, (2) different beliefs and superstitions related to garbage and (3) a historical account of the waste management during the Soviet period. Thus, evaluation of waste from the perspective of population may be useful in exploring how people value the objects and make decisions to throw away something into trash.

#### **Nur-Sultan residents' perception of waste**

Providing a definition of the concept could be a useful of understanding people's attitude and perception of any object. There are eight participants interviewed for this section that have different backgrounds in terms of their age, occupation and gender. All of them live in Nur-Sultan and their names were changed with the pseudonyms. During the interviews with my participants, I asked them to define "waste" and their understanding of the word. However, for most of the interviewees determining the waste as a concept was a difficult task and they were surprised to hear such questions. There were different answers that reveal how residents of Nur-Sultan perceive waste. For some people it was important to have an emotional attachment to an object to determine whether it is waste or not. While other people make categories such as needed or not needed for the livelihood. In addition, waste may be defined as a solely human produced object which cannot be observed among the animals or other living organisms. Thus, different perception of waste may indicate different ways of valuing the object and the patterns of how things are discarded.

One of my participants is Asiya, who is 28 years old and works as a chief accountant in one of the well-known Kazakhstani company. When I asked to define waste, she replied as following:

*-Что для вас значит "мусор"?*

*-Мусором может оказаться любая вещь, которая не приносит счастья в использовании. После очистки дома от мусора чувствуется облегчение и прилив сил.*

*-То есть любая вещь, которая не приносит счастья изначально или после использования? А как же другие ориентиры, например, новая или старая вещь?*

*- Старый или новый не важно. Он принес тебе удовольствие в момент покупки, покупка не была зря в любом случае. Если она тебе не особо нравится, то можно выкинуть и новое или отдать. Мари Кондо говорит возьмите предмет в руку и почувствуйте, как реагирует тело. Если вас тянет вниз и тяжесть такая в теле и на душе, значит не то. Я, конечно, прям так кардинально все не выкидываю. Но почему-то согласна с этим подходом. Если вещь не удовлетворяет, она жрет твою энергию, а не пополняет. Порядок в доме и когда окружен всем тем, что тебя наполняет [энергией], то ты становишься эффективнее и успешнее по жизни.*

*-What does "garbage" mean for you?*

*- A garbage can be anything that does not bring happiness while using it. After cleaning home from garbage, there is a feeling of relief and burst of energy.*

*-Do you throw away the object that does not bring you happiness from the beginning or after using it? What about other features like new or old thing?*

*-It is not important whether it is old or new. It brought you satisfaction when you purchased it, your purchase was not for nothing in any case. If you don't like it so much, then you can throw away new thing or give it someone. Marie Kondo<sup>22</sup> says hold an object in your arms and feel how your body reacts. If it pulls you down and there is heaviness in a body and soul, then it is wrong. Of course, I do not throw away everything cardinally. But I agree with this method. Neatness at home and when you are surrounded with things that fill [you with energy], then you become more effective and successful in life. (Asiya, personal communication, January 24, 2019)*

Asiya thinks that any object should bring happiness. Her classification of objects depends on her emotional attachment to these things. She throws away an object as a garbage when this emotional attachment disappears or does not exist at all. It is also notable that she reads literature on cleaning and organizing the objects at home. Her choice of literature is

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<sup>22</sup> Japanese author of a bestseller "The Life-Changing Magic of Tidying Up" which tells about methods of organizing and cleaning at home. More information can be found at <https://konmari.com/pages/about>



tightly related to garbage because everything that does not bring joy or energy is thrown away. It seems like garbage distance her from being more energetic, successful and happy. Thus, garbage is any object that does not induce positive emotional or psychological feelings. This kind of relationship to waste may also imply that people's attitude towards waste is not defined only within their society but also on a larger worldwide scale. It means that waste is both a local and global phenomenon.

It became popular to discard things and empty house from unnecessary objects in order to free up space for new things. As it was mentioned by Asiya, she uses the principles of Marie Kondo which is known as Konmari method. Marie Kondo is a Japanese author of the book "The Life-Changing Magic of Tidying Up" and a professional in tidying, cleaning and organizing the objects in the house. She is also the star of a new Netflix series, where she helps families organize their homes. Kondo offered a new method of tidying the house which is based on six principles. She explains that it is needed "to commit yourself to tidying up", then a person draws a clear picture of his lifestyle. After, a person may start to discard the objects by analyzing whether it brings happiness or not. Then, in order to finish the cleaning process, it is important to put things in order and organize by categories ("Marie Kondo. About", n.d.). This method of tidying is based on the emotional and psychological attachment of people to objects. The absence of this attachment makes the thing to fall in the category of "unnecessary" objects. Therefore, anything which does not pleasure may be easily thrown away.

Marie Kondo teaches to throw away things with the feeling of appreciation and thankfulness. She believes that any object has its meaning in life that teaches a person a lesson. It is important to thank the object for the lesson before it has been discarded. For example, Kondo put a salt on the objects considered as waste in order to clean them and purify. This is a Japanese ritual of purification. Throwing away objects into a garbage bin

with gratitude and thankfulness will influence on the quality of the further life ("Let Go with Gratitude – All Things Konmari'd", 2019). It was mentioned in Chapter 2, a driver of an excavator in the landfill wanted that Nur-Sultan residents would change their attitude and as he put it *"their attitude to waste was more cultural"* (Marat, personal communication, May 23, 2018). Probably, Kondo's method of discarding objects is the way how a landfill worker sees a proper way of behaving with a garbage. Both cases instruct that there is a relationship between humans and the objects that surround them. They are based on different feelings and emotions that have an impact on lifestyle.

The emotional aspect of the objects relates humans to their things through the senses. Nicole Boivin (2011) articulates this idea in the following way:

Sensual experience is closely entangled with emotional experience, and considerations of experience must acknowledge both. The senses often assume a pivotal role in eliciting emotional feelings, while emotion itself acts back on the senses, and can heighten sensory awareness. (p.106)

It is possible that people's decision to throw away things may be linked to the same process that Boivin describes. An object considered as garbage may evoke different senses which are expressed in terms of emotions. Marie Kondo's method is a practical representation of Boivin's ideas because Kondo thinks that a person should hold an object and try to understand his/her senses. If the object brings happiness and joy ("Marie Kondo. About", n.d.). Both authors explain that discarding the objects is not only a rational decision, but also based on the emotional and sensual experience.

Waste cannot be determined only by the livelihood of humans but also include the leftovers of other living organisms. For example, another participant Gulim who is 28 years old and works in the grocery store as a cashier had her own definition of waste. Gulim responded in a more practical way:

*-Сіз үшін қоқыс деген не?*

*-Мусор деген отход. Отходы жизнедеятельности человека.*

*-What does “garbage” mean for you?*

*-The garbage is waste. A waste generated from the livelihood of humans. (Gulim, personal communication, February 6, 2019)*

She relates human activity to a production of waste. From this conversation it should be noted that people may respond in a very precise term without recognizing it. Out of many forms of living organisms living on the planet, only humans produce waste. While animals and other organisms do not produce garbage that may pollute or damage the environment. It may also imply that garbage is by definition something unnatural and not alive.

The connection between animals’ and humans’ waste is made in Joshua Reno’s analysis (2014) of semi-biotics and animal feces. Usually, waste management discussion begins with the analysis focusing on filth. Therefore, waste is regarded as solely human-made phenomenon, anthropocentric. This way of seeing waste makes clear distinction between humans and animals. While semi-biotic approach blurs this distinction by focusing on animal feces. Animals do not produce the same waste as humans, but they leave the feces as a symbol of their livelihood. According to Reno (2014), animal feces are also a point of connection between humans and animals. People take responsibility for their pets and the feces of their pets considered as humans’ themselves. Moreover, animal feces are not an end point, but it can be further used to fertilize the soil. Animals themselves use the feces for multiple purposes like a place to keep eggs. Thus, animal feces connect different organisms like humans and animals. By making analogy between feces and waste, it can be said that “wastes are signs of a living thing” (Reno, 2014, p. 24). This new definition of waste derived from the analysis of animal feces using the semi-biotics. It can be seen that in this definition there is no distinction between humans and animals’ waste. Also, it shows that waste is not only something rejected or discarded without value, but it shows the livelihood and connection among the living organisms.

Sometimes defining waste depends on how people categorize the objects in their life. In a broader sense, the categories can be such as the necessary and unnecessary objects for humans. Those in the latter category is regarded as waste and thrown away since a person may not see the purpose of possessing it. For example, another participant named Sagimbay who is a security guard in one of the universities of Nur-Sultan, was a little bit stricken when asked the definition of waste but shared with his thoughts on this matter:

- Как вы думаете, что можно считать мусором?
- Мусором можно считать все что не нужно человеку.
- У вас бывают ли сожаления, когда вы что-то выбрасываете?
- У меня когда-то были такие сожаления. Теперь уже их нет. Я это преодолел. Если что-то тебе не нужно от этого нужно избавиться. Это моя позиция.
- How do you think what can be counted as a garbage?
- A garbage can be everything that is not needed to a person.
- Do you ever feel sorrow when you throw away something?
- I had such feeling of sorrow before. Now there is no such feelings. I overcame it. If you do not need something, you need to eliminate it. This is my position. (Sagimbay, personal communication, January 25, 2019)

Sagimbay as well as a cashier Gulim unconsciously relate garbage to the livelihood of human beings. However, for Sagimbay a garbage is the object that does not have shape or characteristics, and everything may become a garbage if it is not needed for humans. Also, there is some similarities in ideas with Asiya because both can easily throw away an object as garbage. Sagimbay's comments also imply that people keep what is important or necessary to them, but it seems that what people might consider 'important and necessary' keeps growing and changing. Capitalism creates all conditions for constant consumption. Consumption can be defined as "a complex social phenomenon in which people consume goods or services for reasons beyond their basic use-value" (Firat, Kutucuoğlu, Arikan Saltik, & Tunçel, 2013, p. 182). Nur-Sultan has clearly become the city of "consumer society" where people constantly buy new things for different purposes (First et al., 2013, p. 182). As a result, increasing consumption levels may have a negative effect on the generated amount of waste.

Waste is defined differently depending on their individual perceptions. The categorization of what is waste and what is not waste may rely on various characteristics. People pay attention whether there is an emotional and psychological attachment. There is also a rigid idea that waste is only a human produced object. In addition, there is also categorization of what is needed and not needed. Thus, it can be inferred that the value of any object is not only its economic price but also a social perception based on individual experience. It is also important to understand the underlying reasons for such definitions of waste. Waste is associated with something negative, dark and energy consumptive, a point to which I turn to now.

### **Beliefs related to waste**

Different beliefs and rituals are shaped by the practical experience of people with the phenomenon or object. There are many superstitions, beliefs or rituals about the garbage. Almost all the participants have negative beliefs related to waste and they explain it by religious or spiritual reasons. This negative relationship between waste and people's beliefs may also determine the role of the waste in the society. People realize that they themselves produce waste but there is still strong belief that waste is something that should be abandoned and not touched. There is also association of waste with darkness, evil or bad energy that hamper progress, success or development.

My participant Asiya has a belief that old things keep the energy of the past. It is important for her to throw away old things to move forward and develop. She expressed her opinion about keeping things and beliefs in the following way:

*-Знаете ли Вы людей, которые любят хранить вещи? Какие есть суеверия или приметы, связанные с мусором?*

*-Верю, что вещи хранят в себе энергию прошлого. Поэтому чтобы двигаться вперед нужно почаще избавляться от старого и в общем не захламлять жильё новыми вещами без острой необходимости.*

*-Do you know anybody who likes to keep things? What kind of rituals or beliefs related to waste do you know?*

*-I believe that things keep the energy of the past. That is why to move forwards we need to eliminate old [things] and do not litter house with new things without urgent necessity. (Asiya, personal communication, January 24, 2019)*

A belief that old things may hold people and distract from the progress drive my participant to quickly eliminate them from the house. It means that waste is not created right away, it may become anything with long history. There is a time feature of waste which shows that waste is associated with the past, backwardness and contrasting to development.

Especially in politics, garbage is associated with the past practices and backwardness. Hodges (2013) in her article about medical waste management in Indian city Chennai explores how the problem can be solved. She explains that Indian medicine was progressing and improving but as it became more sophisticated, the more medical waste was generated. Inability to regulate waste was equaled to inability to govern the city. It was also related to colonial thinking that the city officials could not manage their own waste. Hodges (2013) claim “garbage retains its “backwardness” and serves as a marker of the past” (p. 114). The same association was expressed by Asiya, who feared that waste negatively affects progress and it is a sign of backwardness. On a city level, waste is not only about backwardness, but related with colonial thinking and inability to self-rule.

The association of waste with the past is not always negative but can be related to hesitation to forget the past and memories of the past times. For example, a participant Liliya (38 years old) who works as a freelancer expressed her opinion about keeping things:

*-Знаете ли Вы людей, которые любят хранить вещи? Что Вы думаете по этому поводу?*

*-Знаю людей, которые хранят дорогие сердцу вещи. В них, по-моему, нежелание отпустить прошлое.*

*-Do you know people who love to keep things? What do you think about that? What kind of beliefs or rituals do you know related to waste?*

*-I know people who keep things that are warm to their hearts. I think there is reluctance to let go the past (Liliya, personal communication, January 26, 2019).*

She thinks that people keep things because they may have memories with these objects. It is difficult for them to throw away these objects as a garbage because it may also mean that they have to forget about their memories of the past. There is a strong sense of attachment between material and immaterial and it is not necessarily a negative or bad phenomenon. Liliya's ideas correspond to Asiya's practice of Konmari method. Both participants explain that the objects which bring energy, joy or good memories can be saved.

In addition, sometimes a waste may be undamaged and reusable object, but people may hesitate to take it because other people has already classified them as a garbage. For example, a participant Gulim explained this situation in the following conversation:

*-Сіздер қоқыстарға байланысты ырымдар мен сенімдерге сенесіз бе?*

*-Біреулер болады ғой кейде мусорға тастап кетеді, но это нормальная вещь. Не сломанная, не поломанная просто выкинули. Оны алуға да болады, бірақ ойлайсың ғой, жаман оймен тастаған болар деп. Наверно и верим.*

*-What kind of superstitions or rituals do you believe related to waste?*

*-Some people leave in the garbage, but it is a normal thing. It is not broken, not damaged just thrown away. You may take it, but you think, what if it was thrown away with bad thoughts. Probably we believe. (Gulim, personal communication, February 6, 2019)*

From this conversation it can be seen that waste may be related to negative beliefs such as mistrust, suspicion and insecurity. Even the appearance of the object that has already been classified as waste may not change a person's attitude. The better the appearance of waste, the more suspicion arise. There is already an established idea that nobody throws away a good thing, and if it has been thrown away then there must be at least something bad about it such as ill thoughts of the previous owner.

The same ideas can be found in Kathleen Millar's (2018) book about the *catadores*<sup>23</sup> in the Brazilian dump Jardim Gramacho. The author explains that the *catadores* perceive money earned from working on the dump as "cursed" (Millar, 2018, p. 102). Like in the case of the participant Gulim, money earned from the dump and objects taken from the garbage containers are both believed to be a bad fortune. Thus, in the case of money, it is almost difficult to save it or invest it. The money from the dump is spent quickly and for fixing the poor living conditions. The belief that the nature of such money is bad make the *catadores* to use it accordingly. While in the case of Gulim, the belief that the objects on the landfill may bring unhappiness make her discouraged to take them. Consequently, people's belief about the object that surround them affect the way how they act (Millar, 2018).

There are also religious beliefs related to waste. For example, a participant Galym (33 years old) who works in one of the national companies of Kazakhstan shared with his thoughts on this topic:

*-Сіздер мусорға қатысты ұстанымдар мен сенімдерге сенесіз бе?*

*-Әртүрлі ғой, дінге байланысты. Мысалы, түнде оның қасында жын-шайтан жүреді дейді. Түнде мусор шығармауға тырысу керек дейді.*

*-Do you believe in superstitions or rituals related to waste?*

*-There are different related to religion. For example, it says at night jins and shaitans go around it. (Galym, personal communication, February 6, 2019)*

In Islam waste is associated with evil and demonic creatures. There is also mentioned nighttime which also shows the relationship with something dark and bad. The Muslims believe that there is a world of jinns or spirits and shaitans are those jinns that do not have faith in Allah. It is believed that shaitans suggest evil ideas to human beings so that the latter will do sin (Britannica, "Shaitan", 2019). Shaitans live everywhere but they choose dirty and dark places like the bathrooms, dumps, cemeteries and bazaars. In these places there is a high

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<sup>23</sup> Waste collectors that collect different materials (eg. paper, plastic, glass) on the dump and sell it.



possibility that human beings will behave not in a proper way (“Spiritual Administration of the Muslims of Kazakhstan,” n.d.). This is the reason why a participant Galym tries to keep distance from the garbage containers during night time. Therefore, avoiding dark, messy and dirty places is another way of protecting human beings from doing sins and bad deeds.

Almost the same practice was described in Nancy Munn’s (1986) book about the Gawan society in Papua New Guinea. In her book, Munn (1986) analyzes how the Gawan society establish political and moral orders in the community through the value transformations. Value means “a particular potency” and it denotes to the possibilities of extending the relationships between local community and the visitors from overseas (Munn, 1986, p.11). It is differentiated into positive and negative terms depending on how these visitors were treated. When the guests are treated well and given food to consume a positive value is generated because it means that Gawans established good relationships and they may expect reciprocity from their guests. If the guests were treated poorly and the food was consumed by the local community then the value takes a negative form. Here, food consumption without sharing it with the guests means the expression of greed and selfishness. It demonstrates the inability of a person to extend the agency beyond his/her own agency and to establish good relationships.

It is believed that those people who did not share food with the overseas guests will be killed or cursed by the witches. Then, a witch will eat his/her body. Munn (1986) argues that the witch appears not only to punish the person but to demonstrate the negative value of his/her deeds. Therefore, a negative value takes form of a witch eating a body of a person who did not respect the moral and political order of the community. Munn’s analysis of the value transformations can be paralleled to Islamic religious ideas. If the Muslims associate the garbage with jinns and shaitans, the Gawans associate the negative value with the witches. In

both cases, the monstrous creatures and spirits are employed to refrain human beings from sinful and bad deeds.

In Kazakhstani society a cultural and religious beliefs are sometimes interrelated in terms of their goals and main functions. For example, the idea “obal bolady” is frequently used in Kazakhstan and the word “obal” means harm and destruction (Kurmetuly, 2011). This phrase warns people not to do harm to nature, other people and all living organisms. It is easier to understand the underlying meaning by examining the situation with throwing away bread that was discussed in previous chapters. For example, in Kazakh culture when someone wants to throw away bread, it is said “obal bolday” to stop the person. In Kazakhstani blog platform *Tamshy*, there are several explanations to this phrase (Kurmetuly, 2011). For example, throwing away bread is considered as obal because it is “ysyrap”<sup>24</sup> in Islam to neglect and disregard food (Kurmetuly, 2011). Also, it means disrespect to the labor of people who worked to produce this bread. Finally, it does not match the main goal of producing bread. People should eat bread, not to throw it away. Therefore, the phrase “obal bolady” is used among the Kazakhs to explain that it is important to understand the value of all things made by Allah<sup>25</sup> and not to do sin by disrespecting and discarding it without any serious grounds (Kurmetuly, 2011). It connects Kazakh cultural and religious beliefs by explaining that any object, animal or human being should be valued and respected.

From the previous examples, it can be seen that people throw away waste not only due to their physical properties but also due to negative associations and beliefs connected to it. The concept of waste is tightly related to something backward, old, dark, evil and bad in people’s mind. Thus, they avoid contacting waste and try to eliminate it as quickly as possible. From the conversations with the participants it was inferred that sometimes people

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<sup>24</sup> The idea of wasting, squandering or misusing something in Islam.

<sup>25</sup> The creator in Islam.

rely on religious, spiritual and modern beliefs while assessing the value of an object. The beliefs are not necessarily true claims or based on someone's experience, but they are mostly dictated by the intuition and feelings. People do not have strong attachment to the objects because they can substitute it any time. The economic value of the objects is lowered. Thus, the social (moral) values of the residents can be considered low as well. It does not mean that valuing things by relying on emotional, religious or spiritual beliefs are wrong or immoral, but it determines that the objects are not scarce so that people have an option not to keep them. The opposite situation may be observed during the Soviet period when people had adapted their economic and social values to a state regime.

### **Recycling and waste management during the Soviet period**

The accumulation of municipal solid waste is mainly conditioned by human everyday production and consumption. It means that it has always been here and existed as long as people live on the Earth. The only difference is that the methods of waste disposal and consequently its amount has changed over time. When I asked my respondents about waste management 20 years ago or 100 years ago, the younger generation could not directly answer to this question but could only guess about the volumes of waste. It is reasonable for the young people aged 30 and under not to know about the waste management methods of the past. While older generation aged 55 and over could easily recall their Soviet past and easily answered to this question with a little bit feeling of nostalgia. It is notable that most of them mentioned that during the Soviet period waste was not a problem. They have given almost the same answers why there was no waste and why people did not perceive it as a problem during that period.

There is a belief that during the Soviet period there were less wastes because the population sorted their own garbage before depositing it in allocated drop-off points. The garbage was sorted such as glass, paper, metal, bones and old clothes. For example, a

participant Galiya who is 57 years old and works in one of the governmental organization states:

*-Знаете ли Вы как управляли твердыми бытовыми отходами, например, 100 лет назад? А 20 лет назад? Как думаете, что изменилось с тех пор? Какие вещи раньше не выбрасывали в мусор?*

*-Не знаю как 100 лет назад, а 40-50 лет назад мы стеклянную тару сдавали за 12 копеек. Макулатуру и старое тряпье, кости домашних животных, металлолом принимали в пунктах приема за определенную сумму. И можно было купить дефицитные по тем временам товары, литературу. Поэтому все это не выбрасывали в мусор. С тех пор технология и техника шагнули далеко вперед. Решая вопрос мотивации, можно решить и вопросы переработки мусора и экологии окружающей среды.*

*-Do you know how the municipal solid waste were managed 100 years ago? 20 years ago? How do you think what have changed since that time? What kind of things were not thrown into garbage?*

*-I don't know how it was 100 years ago, but 40-50 years ago we turned in glass containers for 12 kopeks<sup>26</sup>. Paper and old clothes, bones of the livestock, metal were taken in the special reception points for a particular price. And you could buy goods or literature in deficit during that times. Thus, all these things were not thrown away. Since that time technology and machines has stepped far ahead. By solving the question of motivation, it can be solved the questions of recycling the garbage and the ecology of the environment. (Galiya, personal communication, January 23, 2019).*

According to Galiya, waste management during the Soviet period was efficient for two reasons: because people simply produced less garbage, and because people could get material compensation for turning in their waste. She thinks that to recycle the garbage people must be motivated. Despite many years have passed, my participant still remembers the price for glass containers.

Recycling and collecting the materials were not an old practice during the Soviet Union because it appeared only in the beginning of 1970s. For example, according to Tsekov (1974), during this period Moscow started to recycle paper and there were 400 recycling points in its suburban territories. However, it was found that these recycling plants do not recycle considerable amount of paper. For example, on a daily basis they received 1.5 tons of

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<sup>26</sup> The currency in the Union of Soviet Socialist Republics (USSR) was ruble. 1 ruble was equal to 100 kopeks. More information can be found at <http://www.e-allmoney.com/coins/eur/ussr-c.html>

paper but if we compare it with printing facilities of *Pravda* newspaper that produced 300tons every day, this number becomes very small and insignificant (as cited in Pryde, 1991, p.109).

During the Soviet Union, there were different types of payment for turning in the material. Even the children were involved in this process. For example, my participant Neila is 48 years old and currently she is a housewife. She recalled how they gave different materials during her childhood:

*-Сіз бұдан жүз жыл бұрын немесе жиырма жыл бұрын қоқыстармен не жасағанын білесіз бе?*

*-Біздің бала кезімізде сүйектерге дейін лақтырмайтынбыз, сүйектерді жинап алып сабын жасайтын едік. Сосын біздер сүйектерді тапсырамыз да бізге шариктер беретін еді... Мысалы, стеклоны дүкендерде қабылдайтын еді. Үш бутылка тапсырамыз, біздерге бір лимонад беретін еді. Ал, макулатураны мектепке, иә, мұғалімдер организовать етеді. Айтады: мына күні біз макулатура тапсырамыз, мына күні метал тапсырамыз. Сосын біз үйдегі қағазды жинап, килограмдап өлшетіп тапсырамыз. Қай класс көп тапсырса, сол класқа вымпел беретін еді. Мақтау грамотасын береді көп тапсырды деп.*

*-Do you know what have been to waste 100 or 20 years ago?*

*- During our childhood we even did not throw away bones. We collected bones and made soap from it. Also, we turned in bones and received balloons instead...For example, the glass was received in the grocery stores. For three bottles we could get 1 bottle of lemonade. Paper was given to school, yes, the teachers organized it. They say: we will submit paper this day, this day we will submit metal. Then we collected all paper at home and turned it in kilograms. The class that turned in the most could get a small flag indicating their achievement. Also, they gave the certificate of honor. (Neila, personal communication, January 29, 2019)*

It can be seen from the conversation, that children during the Soviet Union were encouraged to give paper, plastic, metal and other goods to get some benefits such as sweet beverage, balloons, certificates or small flags. It seems like the recycling during this period was politicized since even the schools were involved in it.

The collapse of the Soviet Union and its further political and economic consequences have substantial effect on the waste management system in Kazakhstan. As it was mentioned previously, the recycling plants were located in major big cities such as Moscow and others (Tsekov, 1974). In Nur-Sultan, the new waste management facilities such as a recycling plant

and eco-landfill were constructed by the local government and entrepreneurs. The change of the economic regime has triggered social transformations in the waste management habits of the residents of Nur-Sultan. Now people do not have Soviet type waste sorting and collection methods. They are given more freedom to discard waste as it was discussed in the previous sections. There appeared new modern trends related to waste disposal. Also, now people are more flexible in terms of their perception of the value of objects and there is no need to keep the objects due to the abundance of the substitute goods. Therefore, a change in the economic and political regimes have changed the infrastructure of the waste management system and the social perception of waste as a result.

Not all members of the older generation share the same idea and some of them responded differently. For example, Sagimbay replied that 100 years ago and during the Soviet period the waste was managed poorly, and he characterizes the situation as “total debauchery” (Sagimbay, personal communication, January 25, 2019). He is disappointed about the nature and environment. Sagimbay is sure that there is no well managed landfill in Kazakhstan. He wants Kazakhstani people to learn from the Americans and Japanese how to live, behave and progress. He thinks that Kazakhstan has not made any progress in 100 years (Sagimbay, personal communication, January 25, 2019). It seems like my participant Sagimbay determined waste management system in Nur-Sultan as overindulgence because of the waste accumulation on the landfill. It would be more appealing to him to adopt foreign experience in any sphere.

When I interviewed a cashier Gulim she was with her mother Zhamal who is 59 years old. In the beginning of the interview Zhamal was listening to our conversation and keeping silence. When I asked Gulim about how waste was managed 100 or 20 years ago Zhamal could not keep silence and joined our conversation:

*-Сіз бұдан жүз жыл бұрын немесе жиырма жыл бұрын қоқыстармен не жасағанын білесіз бе?*

*-Жоқ білмейді екенмін. Наверно они просто брали и выкидывали.*

*Жамал:*

*-Жоқ жоқ жоқ, мен айтып берейін. Ондай кездерде былай болған. Малы барлар, картошка, капуста, овощной отходтарды малға берген. Нанды да, басқаны да. Ал, мысалы қағазды отқа жаққан. Басқа нәрсе болмайтын. Ол кездері одноразовый пакеттер болмайтын. Ол кезде пластмассовый нәрсе болмаған. Посуданың бәрі стеклянный болған. Стеклянный өзінде де, бутылканы, банкені, заводтар принимать еткен. Ал железо тоже принимали. Ал пластмассаны қайтадан жуып тазалап қажетіне жаратқан. Біздің заманда сондай болған. Никакой расход, мусорды лақтыру деген болмаған.*

*-Do you know what have been to waste 100 or 20 years ago?*

*-I don't know. Probably they just threw it away.*

*Zhamal:*

*-No, no, no. Let me tell you. Here is how it was during that time. Those who had livestock, they gave potato, cabbage and other waste from the vegetables to the livestock. Even bread and others. For example, the paper was burnt. There were no other things. There were not disposable plastic bags<sup>27</sup>. There wasn't anything from plastic. All dishes were made of glass. Even the glass, bottles, glass jars were received by the factories. The metal was also turned it. A plastic was washed and used for other purposes. This is how it was during our time. There was no waste, there was not such idea to throw away the garbage. (Zhamal and Gulim, personal communication, February 6, 2019).*

Zhamal could not even recall that they had the same amount of waste like nowadays. She explained that all objects were classified (such as glass, paper, metal and food waste) and turned in to factories or used to feed the livestock. On the one hand, this attitude towards waste may be reasoned by economic situation in the country. During some periods of the Soviet Union, most goods were scarce, and people tried to save or reuse the objects. Nothing was thrown away because there was not substitutes for those things. Also, people were motivated by small material compensations from turning in their materials (Zhamal, personal communication, February 6, 2019).

On the other hand, the living conditions such as an apartment or house may also influenced the amount of discarded waste. Zhamal's story may indicate that people living in

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<sup>27</sup> Here she implied plastic bags that can be used only once.

the rural areas have livestock to process food waste and use some type of waste for the household purposes. Also, Gulzhan has supported this idea by telling that nowadays the same methods are practiced in some rural areas of Kazakhstan (Gulzhan, personal communication, February 6, 2019). Thus, the amount of increased waste and recycling methods may be conditioned not only by the change of the economic regime of the country but also the type of living area such rural or urban. However, the economic regime may have changed the lifestyle of those living in the rural areas and their waste processing methods as a result. Therefore, the economic regime may be considered as a strong factor influencing the waste recycling habits.

People lived in the communist period have adapted to the economic regime by reusing and remaking things. The social and cultural change in Kazakhstan may be compared to those in Cuba when the latter experienced scarcity due to its political and economic situation. According to Sarah Hill (2011), after the revolution and rise of the communist party in Cuba, the country has changed its economic goals. It was supported by the Soviet Union and during that period the population experienced a scarcity of goods. Such economic and political conditions forced people to save, remake, reuse goods and shape their attitudes towards the value of goods. Hill (2011) points out that people living in Cuba tried to remake everything they consume. For example, plastic water containers could become flowerpots or containers for feeding pets. The author mentions that the Cubans valued not only the good itself but also its package. Susan Strasser (1999) called this phenomenon as “the stewardship of objects” when the objects are remade due to scarcity (as cited in Hill, 2011, p. 4). The same practice is recalled by the participants of present study. People have generated the habit of reusing and remaking goods and as a result prolonging their lifespan. In contrast to capitalist society where people have more opportunities to substitute things, in communist society the objects are more valued and as a result reused and remade for further consumption.



In addition, a research participant Zhamal expressed her opinion about the current situation in the waste management sector. She thinks that the root of the problem is the plastic bags and plastic package.

*...Честно говоря, қазір бәрі пластмасса болып кетті ғой, пакет болып кетті. Мен айтар едім, пластамассың қажеті жоқ, мынадай пластмасса посуда, баклашка, пакеттің қажеті жоқ. Сосын мындай химиядан жасалған пластмасса ыдыстардың қажеті жоқ деп айтар едім. Барлығы өзіміздің баяғы социализм кезіндегі, қайтадан қолданатын болсақ қайтадан ұстайтын болсақ, мынадай лишний расход болмас еді. Мусор болмас еді...Біздерде баяғыда сары қағаз болған. Соған сал. Онда жақсы сақталады біріншіден. Екіншіден оны отқа жағасын. Ол отқа жанғанда жерге ешқандай зияны жоқ. Ал мынаның бәрі у, химикат мынаның бәрі.*

*...To tell the truth, nowadays everything is made of plastic and plastic bags. I would say, there is no need in plastic, plastic dish, baklashka<sup>28</sup>, plastic bags are all useless. Then I would say that we do not need such dishes made of plastic. If everything was like in our socialist time, if we used everything again, then we would not have extra waste like this. There would not be a garbage...Previously we had yellow paper<sup>29</sup>. Put it there. Firstly, it is well stored in it. Secondly, you can burn it. When you burn the paper there is no harm to earth. While these things are all poison, these things are all chemicals. (Zhamal, personal communication, February 6, 2019).*

On the one hand, Zhamal's concerns about wide use of plastic is understandable since plastic package is made of different chemicals. On the other hand, probably she understands that the economic regimes as well as technologies have changed, and plastic materials are the cheapest way of packaging for the businessmen. There is a kind of tradeoff between eliminating deficits and scarcity and harming the environment to reduce the costs of production. Zhamal as well as other research participants express social values when they respond about waste. In this section, it was examined how the modern global ideas make people to believe that the objects at home should bring joy. More importantly, there are environmental concerns underlying these social transformations. The residents of Nur-Sultan could reduce their consumption levels and think more about the ecology. Their consumption behavior and environmental activism could be rewarded by the government in order to stimulate more care for the nature.

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<sup>28</sup> Jargon word for plastic bottle.

<sup>29</sup> During the Soviet Union food was wrapped in yellow paper.

The socialist and capitalist approach to waste is analyzed in Zsuzsa Gille's (2007) book "From the Cult of Waste to the Trash Heap of History: The Politics of Waste in Socialist and Postsocialist Hungary". The author determined three periods in Hungary's history which are called "the metallic, the efficiency, and the chemical regimes" (Gille, 2007, p.203). A metallic regime can be characterized as a period when waste was not considered as a serious issue but a resource. It was important to recycle it and use in industry. In the command economy, the government had a plan and many industries had to satisfy the requirements in the amount of produced goods. Therefore, using waste as a material for plan execution was a necessary procedure (Gille, 2007). While during the efficiency regime the attitude towards waste has changed. It was believed that waste hold the production and efficiency of industries was prioritized. The efficiency regime determined was as "a monetized concept" (Gille, 2007, p. 204). The government used economic methods to increase waste management activities. The efficiency regime may resemble the waste management system in the Soviet Union described by the participants of the present research. For example, the interviewees said that they were motivated to turn in the materials such as metal, paper or glass for financial compensation.

The third regime is the chemical regime which can be defined as a period when waste is perceived as hazardous and environmentally dangerous. It is dated from 1985 and onwards (Gille, 2007). The author argues that during this period the public generated the awareness of the toxicity and danger of waste. When Hungary became part of the European Union, there appeared new perspective on understanding of cleanliness and "being civilized" (Gille, 2007, p. 209). Being European citizen was associated with purity, modernity and cleanliness, while socialism was imagined as backwardness, filthiness and impurity. It would seem that younger participants from Nur-Sultan have the same beliefs because global capitalist ideas dictate that

waste is backward and opposite to being modern, successful and happy. The economic and political regime had an influence on people's perception of waste.

## **Conclusion**

In conclusion, it was important to analyze the perception of Nur-Sultan residents about waste and different beliefs and rituals related to it. There was also examined historical account of waste management during the Soviet period. The participants of research expressed different opinions about their understanding of waste. Some of them defined waste as something not bringing joy and happiness, while others classified it as the objects no longer needed for human livelihood. Waste is associated with backwardness, sin, darkness and dirt. This kind of relationship lower the economic value of objects since people have access to a variety of goods. Different religious, spiritual and modern beliefs influence the value of objects as well as strengthening consumerism in the society. As a result, the lower economic values lead to lower social values. That is why people throw away bread despite that they know it is "obal".

The older generation that have seen the Soviet period have different understanding about waste. They recalled that during the Soviet time people had an opportunity to recycle their waste and get financial compensation. There was no need to throw away the garbage because most people had livestock to process food waste and for other waste types, they had collection points. However, it does not necessarily mean that there were less waste or more efficient recycling system. It is important to understand that people lived in the command economy and they had different social values due to scarcity and poverty. The economic regime had substantial effect on how the objects were valued. The economic and social value had the same directions in both regimes: either high or low. Therefore, an idea that the value(s) have the same meaning, or the same feature can be implied from the examination of waste treatment in different time periods.

## Conclusion

The analysis of working conditions in Chapter I shed light on the operations and functions of the waste management system of Nur-Sultan. There were included four main organizations such as Nur-Sultan Eco-Landfill LLP, Clean City NC LLP, Kaz Recycle Service LLP, and the Akimat. The municipal solid waste of the city residents is collected by Clean City as well as by other smaller private garbage collecting companies. Clean City is responsible for the transportation of the garbage to the recycling facility. Kaz Recycle Service is the only recycling facility that receives waste and sorts it. After the garbage is sorted and recycled it is delivered to the landfill of Nur-Sultan. Finally, the professionals in the landfill bury the garbage. The Akimat of Nur-Sultan coordinates the process and controls communication between these actors. Currently, only the Akimat is the governmental organization while others are the private ones. The landfill of Nur-Sultan was controlled by the Akimat until it was privatized in March-April 2018 and sold to private owners.

The main aim of the chapter was not only to examine the working conditions but to analyze how the practical and operational functions of the waste management organizations may influence the prestige and status of the waste worker profession. The concept of value was a useful tool in determining this relationship and exploring its implications. Since waste is considered as an object with no value, the employees in the waste management sector experience many difficulties both emotional and physical (Thompson, 2017). Except for the Akimat, waste management workers contact waste every day and they endure the odors, dirt, uncomfortable working conditions and emotional pressure from cleaning someone's garbage. Even though the Akimat workers do not experience the same level of discomfort as other waste management employees, they confront their own difficulties such as bureaucracy, lack of human capital and excessive work. Therefore, different level of discomfort in the working

conditions of the waste management employees only lowers the economic value of their labor making the contributions of the profession undervalued and not reputable for the newcomers.

Poor working conditions and unprestigious profession of the waste worker attract people with low or no qualification into the sphere. Most of the employees in the waste management sector do not have formal higher education and the majority is male workers waiting for retirement or already retired. Also, there are many immigrant workers that came from poor regions and with no specific training. As a result, the employees are not interested in providing better working conditions and paying high wages because there will be always other workers who would agree to work in such terms. Thus, the economic value of labor is lowered and the social value such as reputation or prestige is lost. As it was explained by Michelle Yates (2011) it might be also possible that the capitalistic regime creates the rules so that people are exploited to maximize profits. Thus, the employers are interested in collecting, recycling, and burying waste of the city with low cost of production. One of such profiting methods was the privatization of the landfill which plays a major role in the waste management chain of Nur-Sultan.

The landfill's privatization can be considered as a way of creating value from working with the objects of no value. Privatization has reconstructed the landfill from the municipal facility to a private company. It can be seen from the new positions, new working schedule, change in the number of workers, new financial regulations and many other adjustments. If before the privatization the landfill operated with no strict control, after the privatization it was evident that the new owner has changed the management process. The private ownership of the landfill may mean that the owner can set his prices for waste burial. If before the fees were regulated by the government, now the new prices may be considerably higher. Thus, it implies that the same waste costs more expensive and may create more economic value than before. It is not the intrinsic value has changed but the economic value that increased due to

transformations within the organization. However, the privatization does not ensure the better working conditions for the workers and their problem as undervalued professionals remains.

The waste workers perspectives on waste management system were analyzed in the second chapter. There were examined what the workers think about the amounts of waste generated every day. The waste workers expressed their opinions that the amounts of waste are increasing every year and the residents of Nur-Sultan could change their attitude towards the way they throw away garbage. The main concern was that people do not value things and easily discard everything they do not need. Another concern was about how the waste workers perceive themselves in this sphere. Working in the waste management sector involves the social stigmatization of waste workers. Therefore, they create social buffers to confront social stigma and defend their job choice (Ashforth & Kreiner, 2014). The employees collect certificates of honor, demonstrate their technical and personal qualities, try to earn higher wages as a way of reasoning their choice. Thus, the waste management workers experience not only lowered the economic value of their labor but also lowered social (moral) value of their profession. In other words, they feel themselves as waste or human-as-waste.

Another major concern is that the waste management sector is attractive for migrant labor force from other countries such as Uzbekistan, Kyrgyzstan, and Mongolia. These migrant workers came from poor regions and they do not have higher education as other local workers. Some migrant workers successfully integrated into society and even got a promotion at work. While there also another group of migrant workers who work illegally on the landfill by collecting different materials. The migrant workers can be also considered as humans as waste because they could not find a better-paid job at their homelands. Both local and migrant employees in the waste sphere suffer from the stigmatization of their profession and low social value.

In chapter three there was examined the perception of waste management sector by the residents of Nur-Sultan. The population of Nur-Sultan perceive the garbage differently and base their decision on emotional, spiritual, religious, and cultural beliefs. In the age of capitalism, people do not try to keep things or remake them as much as possible. The most common belief is the association of waste with backwardness, darkness, sin, and dirt. Something is thrown away as garbage because it does not bring happiness, or it may be related to bad thoughts of the owner. Some people try to avoid garbage containers during nights due to their religious beliefs about evil and demonic nature of darkness and waste. There are also cultural understandings such as “obal” when doing harm to other objects, people or living organisms is prohibited. Thus, the food waste such as bread is not thrown away directly into a garbage container but hanged in the plastic bag near the container. In any case, capitalism created conditions so that people do not keep things or can consume any time they wish.

The older generation participated in the research expressed their opinion that during the Soviet period the attitude towards the objects was different. The economic and political regime of that period allowed people to turn in their waste for recycling. Most people had livestock to process food waste. Things were not easily thrown away and always were reused or remade for other purposes. The scarcity of goods and products forced people to think twice before discarding something into the trash. In both periods there can be implied that the concept of value plays a significant role in understanding the phenomenon. If nowadays the economic value of goods is lowered due to the availability of goods, during the Soviet time the economic value of goods was high because of the shortage of goods. The social values are also different during these periods. It is difficult to say which waste management scheme was more efficient or which society was more wasteful. However, there can be observed the social

transformation in terms of how people generated beliefs and ideas about waste and how they make decisions to discard things.

The main aim of the present research was to explore how working in the waste management sector affect the self-perception of the waste workers and their working conditions as well as the perception of the city residents. Also, the second aim was to determine the usefulness of the concept of value (economic and social) in understanding the waste by the residents of Nur-Sultan. From the obtained data analysis, it can be inferred that working in the waste management sector affect the self-perception of waste workers by lowering their economic and social values so that they defend their choice by proving their personal and professional qualities. The working conditions are also determined by the nature of their job so that working in the waste management sphere is considered as not reputable and esteemed. The understanding of waste of Nur-Sultan residents conditioned by the economic and political system of the country. Due to the capitalistic regime, the population of Nur-Sultan does not keep or recycle the garbage as it was done during the command regime of the Soviet period. Therefore, the economic value of the objects is lowered because of the abundance of goods in the economy. Cultural, religious and spiritual beliefs about waste also determine the changed social values among the population. More importantly, the concept of value is a defining idea that helps to understand the social and cultural processes in the waste management sector. As it was argued by David Graeber (2013) both the economic and social (moral) values mean the same thing to “generate the power it embodies” (pp.224-225). It can be seen from the present thesis that economic and social values have the same directions and are interrelated. Therefore, both notions come up with a single result at the end of any process or phenomenon.

This ethnographic study of a waste management system of Nur-Sultan may contribute to the development of anthropological studies of environmental issues in the context of



Kazakhstan, Central Asia, former Soviet Union and expanding cities. Since Nur-Sultan is the capital of Kazakhstan, it has a defining role in the development of the waste management system in the country. The technologies and waste management facilities in Nur-Sultan are unique in Kazakhstan and that is why they set the directions for other cities for development. Different cultural and religious (especially Islamic) beliefs in the waste management sector are common for the Central Asian states. For example, the attitude towards throwing away bread or Islamic beliefs about different dirty or impure places. Since the Soviet legacy is the historical past of Kazakhstan some of the practices during that period will remain. For example, issuing milk in the waste management organizations was first implemented during the Soviet period and it is still being applied by the Kazakhstani government. Nur-Sultan as an expanding and urbanizing city needs to develop its waste management system by adopting effective practices of other big global cities in the world. Therefore, this study contributes to an understanding of the waste management from an anthropological perspective that allows analyzing environmental, cultural and social processes in the system.

There are also many ways how the waste management sector can be studied further. For example, there could be made a research on the deaf people working in the recycling facility of Kaz Recycle Service. It would be interesting to explore whether the company gets any subsidies for employing these people and what are the motivations for this employment. Also, there could be determined the ideas and thoughts of deaf people, their life stories and work benefits. Moreover, it could be useful to study entrepreneurs in Nur-Sultan that provide environmental services. For example, some young businessmen recycle plastic bags and produce beautiful jewelry. There are also environmental groups such as “Rocketplastic Astana” or “Ecoclub Sparta Astana” that organize different events in the city to clean the areas. Despite that environmental groups and entrepreneurs do not process a huge amount of

waste in the city, they still contribute to the rise of environmental awareness among the population.

Ultimately, this study examined the waste management system in Nur-Sultan from the perspectives of waste workers and the residents of the city. The main contribution of this study is that it is qualitative ethnographic research that allowed seeing a deeper and broader picture of the waste management sector from people engaged in the process. Both the waste workers and residents of Nur-Sultan have shared their personal experience of contacting waste every day and what kind of social and cultural transformations it entails. The study also involved governmental and private organizations and even explained how the transition from state control to private ownership may change the working conditions and main functions of the organization. Moreover, it was determined how people make decisions about what to throw away and what happens to it after being discarded.

## Appendices

### **Nur-Sultan Eco-landfill interview guide for a research project entitled “What to Throw Away? Perspectives on Waste Management in Nur-Sultan.”**

#### Basic information

- Can you tell me about yourself?
- How old are you? Where did you come from? Where did you study?
- How long have you been working here? What was your previous job?
- 

#### Questions related to work

- How did you come to this job?
- Do you remember your first working day?
- Do you remember the worst and best working day?
- What do you like most about your job?
- What is the worst thing about your job?
- How would you characterize your relationships with your colleagues?
- Do you have traditions or rituals related to your job?
- Do you celebrate the birthdays, holidays and other events on your workplace? How does it happen?
- Do you gather with your colleagues outside the workplace?
- What are your relationships with your boss?
- Are there many newcomers? How often people come and quit this job?
- Does working in the landfill affect your personal attitudes about consumption, waste accumulation or dumping?

#### Questions about the attitude of the society

- Do your family members/relatives/friends know about your workplace?
- What do they think or tell about it?
- Do your neighbors know about your work?
- Do you live far or close to the landfill?

#### Questions about other waste management organizations

- What do you know about the other waste managing organizations?
- Do you visit the Akimat, garbage collecting firms or other organizations related to waste management?
- Do you have friends or acquaintances in these organizations?
- Would you like to change your workplace to another waste managing organization?

#### Questions about scavenging

- Do you use the objects from the landfill for your own purposes?
- Do you bring stuff from the landfill to your home?
- What kind of things people throw away? What do you think about it?

## **Nur-Sultan Akimat interview guide for a research project entitled “What to Throw Away? Perspectives on Waste Management in Nur-Sultan.”**

### Basic information

- Can you tell me about yourself?
- How old are you? Where did you come from? Where did you study?
- How long have you been working here? What was your previous job?

### Questions related to work

- What are your major job responsibilities?
- Why did you choose to work in this particular department?
- Do you feel that working in Akimat affect your personal attitudes and lifestyle?
- Do you visit other organization in the waste management sector?
- Do you visit the landfill?
- Do residents of Astana come with the questions related to waste management?
- Do you have colleagues or friends in other waste managing organizations?
- What kind of issues do you confront in waste management sector?
- What kind of issues there are in the landfill?
- Would you like to change your workplace to another one in waste management sector?

### Questions related to waste management

- How would you characterize waste management system of Astana?
- What would you change this system?
- Do you know any advantages or disadvantages of dumping waste in the landfill?

### Questions about the waste management & society

- Do your family members/friends/relatives know that you work in the waste management sphere of Akimat?
- What do they think about it?
- Do you work with the society in resolving waste management issues?

## **LLP Clean City NC interview guide for a research project entitled “What to Throw Away? Perspectives on Waste Management in Nur-Sultan.”**

### **Basic information**

- Can you tell me about yourself?
- How old are you? Where did you come from? Where did you study?
- How long have you been working here? What was your previous job?
- 

### **Questions related to work**

- How did you come to this job?
- Do you remember your first working day?
- Do you remember the worst and best working day?
- What do you like most about your job?
- What is the worst thing about your job?
- How would you characterize your relationships with your colleagues?
- Do you have traditions or rituals related to your job?
- Do you celebrate the birthdays, holidays and other events on your workplace? How does it happen?
- Do you gather with your colleagues outside the workplace?
- What are your relationships with your boss?
- Are there many newcomers? How often people come and quit this job?
- Does working in the garbage collecting firm affect your personal attitudes about consumption, waste accumulation or dumping?

### **Questions about the attitude of the society**

- Do your family members/relatives/friends know about your workplace?
- What do they think or tell about it?
- Do your neighbors know about your work?
- Do you live far or close to your workplace?

### **Questions about other waste management organizations**

- What do you know about the other waste managing organizations?
- Do you visit the Akimat, Astana Eco-Landfill or other organizations related to waste management?
- Do you have friends or acquaintances in these organizations?
- Would you like to change your workplace to another waste managing organization?

**LLP Kaz Recycle Service interview guide for a research project entitled “What to Throw Away? Perspectives on Waste Management in Nur-Sultan.”**

**Basic information**

1. What is your name? How old are you? Where do you come from? Where did you study?
2. How much time have you been working here? What was your previous job?
3. How did you come to this sphere? How did you find this job?

**Questions about work**

4. What is your working schedule?
5. What do you like most about your work? What are the advantages?
6. What do you not like about your work? What are the disadvantages?
7. Do you receive any material or non-material support from the company?
8. What kind of working condition does your company provide?
9. What do you think of the effect of municipal solid waste on human health and environment?
10. How has your life changed since you started working here?
11. What do you think of the waste that you sort?
12. How are your relationships with the colleagues?
13. Do you meet with your colleagues outside the work?
14. Do you have something like traditions, rituals or something that you do every day at work?
15. Do your family/friends/relatives know about your job? What do they think about it?
16. Do you have plans about your job?

## **Nur-Sultan population interview guide for a research project entitled “What to Throw Away? Perspectives on Waste Management in Nur-Sultan.”**

### Basic questions

1. Hello! Could you please tell me about yourself? How old are you? Do you study or work?
2. What is your home routine like? How do you get rid of garbage? Do you separate your garbage (e.g. for food or recycling) in any way?
3. What do you think about the garbage containers in your area? Are they clean, comfortable and safe?
4. How would you describe the sidewalks and streets in your neighborhood and city? Are they clean, do you ever see trash? Why or why not? Are there areas that are ‘dirtier’ than others?
5. What do you know about the company who transport the garbage of your house?
6. How do you resolve any problems related to garbage containers or timely waste transportations? Do you know whom to contact?
7. Do you know where the waste treatment plants in Astana are located? Would you ever visit there?
8. How often do you have questions or suggestions about the waste management of your living area?
9. What are your thoughts about the methods of reducing everyday household waste?
10. Who usually throws away trash in your family? Why?
11. What kind of things count as ‘garbage’? Are you ever sorry to throw something away? Can you think of something that you threw away, that you regret?
12. What do you know about recycling, and do you support this idea? What happens to recycled materials? Would you/do you buy products made from recycled materials?

### Historical questions

13. Do you know how garbage used to be carried away for example 100 years ago? 20 years ago? Are there any differences or similarities?
14. What kind of objects you would not throw away in the past times? How does this change or not change over time?
15. Do you know anybody who likes to keep things, that you might throw away? How do you feel about that?
16. What kind of beliefs or rituals do you have related to waste? After a meal (or a toi), how do you distribute or store all the food?
17. How would you interpret Kazakh saying “obal bolady”?
18. Which people or groups are most different from each other, in terms of what they keep or throw away?
19. Do you know in general where waste is stored in Nur-Sultan and Kazakhstan?

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