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**“The Waste of Society as Seen through
Women’s Eyes:”
Waste, Gender, and National Belonging
in Japan**

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Table of Contents

List of Tables	iv
Acknowledgements.....	v
Note on the Text.....	vi
Introduction	1
Waste: Unwanted and Undefinable	3
Studies of Waste and Gender.....	5
History and Current State of Waste Management in Japan	8
Gender Roles and Household Waste in Japan	18
Gendered Citizenship and Waste	21
Sources, Methods, and Structure of the Dissertation	25
Chapter 1 “Our Mission as Women:” Technology, Policy, and Women’s Rights in the 1933 Tokyo Garbage Campaign.....	32
The Beginning of Modern Japanese Waste Management and the Rise of Incineration	32
Waste Management in Tokyo: Incineration and Inequality.....	37
The League for Women’s Suffrage and the 1933 Tokyo Garbage Campaign	41
“A Hell of Smoke:” The Fukagawa Garbage Crisis	42
“Miss Oharu’s Dream”	44
“Our Mission as Women:” The Garbage Campaign as a Step Toward Civil Rights.....	48
The Legacy of the Garbage Campaign	52
Chapter 2 “Uncovering the Waste of Society:” Women and the Japanese State in Wartime Waste Campaigns, 1937-1945	55
Mobilization of Women in Peace and War in the Early Twentieth Century	58
Women’s Organizations in Wartime	61
Wartime Waste Collection Campaigns	64

National Waste Collection Campaigns	65
Neighborhood Associations and Waste Campaigns	67
Women’s Associations and Waste Campaigns	70
Wartime Mobilization and Women’s Agency	71
The “Finding Waste in the Streets” Campaign	72
The Significance of the Campaign.....	77
Chapter 3 Household Waste Work and Gendered National Belonging: Garbage in Tsukuba City.....	81
Waste and Gender in Tsukuba City	83
Tsukuba City.....	85
Waste History	87
Waste Management in Present-Day Tsukuba.....	89
Waste Work in the City	90
Waste Work in the Community: Neighborhood Associations.....	93
Waste Work in the Home.....	95
Household Waste Work and Daily Life.....	98
Waste, Gender, and National Belonging.....	105
Chapter 4 Waste Reduction, Citizenship, and the Housewife Identity: Recycling Volunteers in Tsukuba	
.....	109
Creative Recycle: Tsukuba’s Volunteer Recycle Shop	112
Fieldwork at Creative Recycle.....	117
Aims and Activities of Creative Recycle: Building Community by Reducing Garbage	119
Tsukuba Recycle Market: A Housewife’s Effort to Reduce Waste.....	126
<i>Mottainai</i> : A Passion for Reducing Waste.....	135
Housewife Volunteers, Waste, and Citizenship in Japan.....	138
Conclusion	141
Bibliography	149
Appendix 1. List of interviews and fieldwork observations of Tsukuba waste and recycling organizations	
.....	167
Appendix 2. List of interviews with Tsukuba residents and household observations	169

Appendix 3. Interview guide used for institutional interviewees.....	170
Appendix 4. Explanation sheet provided for household interviews	171
Appendix 5: List of fieldwork interactions related to NPO Tsukuba Creative Recycle	172
Samenvatting.....	173
Curriculum Vitae	178

List of Tables

Table 1. Selected waste-related legislation by year	9
Table 2. List of “waste” discovered in the “Finding Waste in the Streets” event, July 22, 1938	75
Table 3. Waste separation categories in Tsukuba City	95

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This dissertation is dedicated to my mother, Carolyn Colombo Tompkins (1955-2018).

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Note on the Text

In this dissertation, Japanese personal names are rendered in the Japanese order with the family name first (except in the case of citing Japanese authors writing in English). Japanese words are transliterated using the modified Hepburn system, with macrons indicating long vowels. All translations from Japanese to English are my own unless otherwise noted. Citations and footnotes follow the *Chicago Manual of Style* (17th edition) Author-Date citation system. The names of all informants and interviewees mentioned in this dissertation are pseudonyms. All photographs that appear in the text were taken by the author, and those that depict the interiors of private homes are included with permission of the resident.

Introduction

“I will contentedly tie my fate to garbage. It is by this [garbage] that Japan moves, that women move.”

Kaneko Shigeri, “Seisō angya kikō” (Record of a cleaning pilgrimage), 1934

“It’s mostly women. Men also have this feeling [of wanting to prevent waste], but, actually, practically, they don’t participate vigorously, proactively. They don’t. Right? Because even if they have awareness [of wastefulness] it’s only women who are doing the activities themselves. ...”

Shōno Takako¹, recycling volunteer (interview by the author, April 1, 2015)

The first time I visited Japan, as an undergraduate studying abroad for a year from 2009-2010, the strongest culture shock I encountered was garbage separation, referred to in Japanese as *bunbetsu*. In my hometown of Hendersonville, Tennessee, in the southeastern United States, there is no curbside recycling – essentially all unwanted items go in one big black trash bag, which is put out for street collection once a week and never heard from again. Voluntary recycle centers exist for the environmentally minded, but you have to transport your recyclables to the center yourself, using your car, of course, as there is no convenient public transportation, so they are not often utilized. Growing up, my family collected bottles and cans in big bags in the garage and brought them to the center only a few times a year. At college in Hartford, Connecticut, I became familiar with single-stream recycling: a single container for plastic bottles, aluminum cans, paper, and cardboard recyclables. The addition of an extra container for recyclables presented no difficulty and made intuitive sense: all the recyclable things would presumably be taken to a recycling center where they could be sorted out and, somehow, “recycled.”

In Japan, things are very different. Trash bins in public areas like airports and train stations tend to have at least three options – “Cans/Bottles,” “Newspapers/Magazines,” and “Other.” Other public or semi-public waste bins such as those at convenience stores or supermarkets may have other options – “Burnable Garbage,” “Plastic,” “Glass Bottles,” “Styrofoam Trays.” The breadth of garbage disposal

¹ All names of interviewees and informants used in this dissertation are pseudonyms.

options can be confusing for the casual visitor, and perhaps even more so for a foreigner newly arrived for a long-term stay in Japan, as I quickly discovered.

During an information session for study abroad students at my university, we students were warned to separate our garbage carefully, but as each municipality has different regulations for trash sorting, the instructions were not very specific. I found out from my landlord that I would need to buy designated trash bags for my burnable waste (which includes kitchen scraps, non-recyclable paper, and other burnable materials) and divide plastic containers and packaging, plastic (PET) bottles, aluminum and steel cans, and glass into ordinary plastic bags for separate collection on designated days. At first I was overwhelmed by all these regulations. What was I supposed to do if the paper and plastic packaging were stuck together?

I tried to follow the rules as well as I could manage, but I often made mistakes. On one occasion when my landlord was in my apartment for a minor repair, he noticed that I had placed a piece of packaging consisting of both paper and plastic together in the burnable garbage bag. He took it out of my trash, pulled the two components apart, and put them back in the correct bags. I was considerably embarrassed, and from then I redoubled my efforts to separate my trash properly. By the end of my study abroad year, variously labeled public bins no longer mystified me, and I felt proud of the ease with which I could identify, separate, and dispose of garbage and recyclable materials. When I returned to the United States, I found that the lack of recycling made me uncomfortable, and I was much more aware of the items I was discarding.

Since that first year of study abroad, I returned to Japan several times for work and study, and lived in several different cities. Each time I had to learn the garbage separation rules of a new city, none quite the same as the last, I became more curious about waste management in Japan. Why were there so many categories for separate collection? Why were citizens asked to separate the garbage, rather than employees at a recycling facility? My interest in feminism and gender studies prompted me to look at the issues from a gendered perspective: was the work of household waste separation performed by women or men, or both, and why? Were there gender differences in the way Japanese women and men dealt with or viewed household waste? How did waste fit into the construction of gender roles in Japan in a historical context? With these questions in mind, I began my study of waste in Japan in 2013 as a member of the Garbage Matters research project at Leiden University.²

The purpose of this study is to explicate the relationship between waste, gender roles (in particular the role of women), and citizenship in modern Japan. Waste represents an ideal site to examine

² “Garbage Matters: A Comparative History of Waste in East Asia,” funded by the Netherlands Organisation for Scientific Research (NWO Vici Grant, 2013-2018, grant number 277-53-006).

the relationship between women and the nation-state³ because of its connection to both the home (where municipal waste is generated, and where socially constructed gender norms and ideals like “good wife, wise mother” [*ryōsai kenbo*] have placed women) and the state (due to the state’s legal responsibility, from the late nineteenth century, to manage municipal waste). The Dirt Removal Act of 1900 assigned responsibility for waste management to local governments, and the law’s revision in 1932, after years of technological progress in waste management techniques, mandated that municipal waste should be disposed of through incineration whenever possible. The predominance of incineration in the waste management system necessitated more thorough separation of waste materials (those that could be burned and those that could not) than other methods, such as landfilling. The Japanese state conferred a large part of the responsibility for this separation onto citizens, who were required to separate waste before its collection. As a task related to the maintenance of the household, the work of waste separation generally fell to women. By examining women’s interactions with waste, whether in the home or through their involvement in waste campaigns or local waste management policies, we can gain a more nuanced understanding of the processes that have shaped women’s relationship with and place in the Japanese state.

Waste: Unwanted and Undefinable

What is *waste*? The term evokes a wide variety of definitions, classifications, and interpretations. In English, “waste” can refer to anything from a banana peel in the kitchen garbage can to an unused tract of land to a missed opportunity. In common English usage, waste has a variety of near-synonyms with slightly different nuances, which may differ depending on the speaker’s dialect or culture: garbage, trash, rubbish, filth, refuse, and so on. As Zimring (2012) notes in the Introduction to the comprehensive *Encyclopedia of Consumption and Waste*, these terms often have pejorative connotations: “Worthless. Rejected and useless matter of any kind. Unimportant” (Zimring 2012, xxv).

While the meaning of waste and its synonyms are usually straightforward and clear in context when used in everyday life, determining a technical or scientific definition of waste is a trickier prospect. Experts in technical and policy-oriented fields may classify waste according to its material composition in order to study or regulate it for a specific purpose. Theorists in the social sciences and humanities tend to focus more on the intangible qualities that make waste *waste*, or on waste’s relationship to human society. In this vein, Mary Douglas, in her seminal conceptualization of waste *Purity and Danger*, famously defined dirt as “matter out of place” (Douglas 1966). The book focuses on the role of pollution and ritual

³ The concept of the “nation-state” will be defined and explored further in Chapter 2.

in “primitive” cultures, in which dirt, “matter out of place,” is managed and purified through taboos and rituals. Although Douglas’s work is invoked by many more recent scholars of waste, the book’s scope is limited to the worldview of the examined cultures, and offers little commentary on the role of dirt in contemporary Western society; as O’Brien (2008) points out, for Douglas, dirt is an abstract concept, and its materiality is largely ignored in *Purity and Danger*: “the *stuff* of dirt and the material, as opposed to symbolic, places it occupies in the systematic organisation of life, is left unexplored” (O’Brien 2008, 128). O’Brien also notes that those authors who draw on Douglas typically do not accept her ideas uncritically: “Ironically, in this intellectual arena, the very thesis that Douglas pursued, and the lessons she thought the book might teach, have been discarded” (O’Brien 2008, 127).

Since Douglas’s day, researchers have defined and theorized waste in a variety of ways, often highlighting disparate aspects of this complex topic. These studies touch on a variety of themes: policy and management (e.g., Gille 2007, 2010, Bulkeley and Gregson 2009, Lybecker et al. 2012); the culture of waste, or the relation between waste and culture (e.g. Douglas 1966, Perry et al. 2010, Reno 2009, Gregson et al. 2007); the materiality of waste (e.g. Bennett 2004, Hawkins 2011); geographies of waste (e.g. Lepawsky and Mather 2011, Crang et al. 2013); food waste (e.g. O’Brien 2012, Evans 2012, Metcalfe et al. 2013); and waste history (e.g. Strasser 1999, Melosi 2005), among others. A wide variety of definitions of waste have emerged from these studies.

Explaining her theory of “waste regimes,” Gille (2010) defines waste as “any material we have failed to use” (Gille 2010, 1050). This definition avoids creating a dichotomy between waste from production and post-consumer waste, and furthermore leaves open the possibility for an object categorized as waste to leave that category or become a different type of waste as it “it traverses the circuits of production, distribution, consumption, reclamation, and ‘annihilation’” (Gille 2010, 1050). She describes waste and society as fundamentally interconnected: “waste is not a residue of but constitutive of the social” (Gille 2010, 1060). O’Brien (1999) defines waste similarly, as “simultaneously a production resource and a consumption good: a bipolar object of political regulation and economic exchange” (O’Brien 1999, 271). For O’Brien, “wasting, as a social process of value-transformation, [is] a counterpoint to the analysis of waste, as an excess or surplus of production and consumption” (O’Brien 1999, 271). Employing Gille’s concept of the waste regime, Oldenziel and Weber (2013) focus on waste as the distinction between what can (or will) be used and what cannot (or will not), noting that this distinction is indeterminate; the difference between waste and not-waste depends on who is doing the determining: “Implied in the practice of recycling is a definition of what comprises ‘waste’. Waste to some (households) is a ‘resource’ to others (industry and the state). In this sense, recycling brings us to the core of a waste regime’s policies and ideologies” (Oldenziel and Weber 2013, 357).

As these varied definitions of waste show, waste is a singularly indeterminate concept: its properties and classifications shift according to the needs, beliefs, cultures, or aims of the persons or groups defining it. For this research, I will avoid presenting a single, rigid definition of waste, and instead focus on the waste identified as such by sources and informants. However, in order to limit the scope of the study, I chose to look primarily at the solid “waste” generated by households – the type of waste called *gomi* in colloquial Japanese and defined more technically as *kateikei ippan haikibutsu* (lit. “household-type general waste”) – rather than human waste, sewerage, industrial waste, or business waste. Taking this waste as a starting point, this dissertation examines one aspect of waste that has been too often overlooked: the connection between waste and gender. Specifically, I will use waste as a conceptual lens to analyze the processes underlying and constituting women’s gendered citizenship in modern Japan.

Studies of Waste and Gender

One of the earliest works to link gender and waste is Thompson’s *Rubbish Theory: The Creation and Destruction of Value* (1979). In his chapter on the transfer of Stevengraphs from the category of “rubbish” to that of “durable,” he notes that this transfer was also one of ownership, from women to men: “It seems probable that women were excluded from durability by a double mechanism. Items controlled by women were transferred to the durable category by transferring control to men and, when this transfer of control did not occur, nor did the transfer from rubbish to durable” (Thompson 1979, 33). Another study that explicitly examines women’s role in waste and recycling practices (and which also involves a transfer of waste material from women to men) is Weber’s (2013) article on women and waste recycling in wartime Germany. Noting that “domestic waste ... has traditionally been defined as a female responsibility,” Weber documents women’s self-mobilization of food waste recycling during the First World War (Weber 2013, 371). These successful salvage drives organized by women and women’s groups on behalf of state authorities in some German cities set the stage for the national socialist salvage drives of the Second World War. The latter, however, coopted women’s labor under state planning rather than allowing for individual initiative: “In contrast to the earlier situation, however, women’s activism now largely supported centrally implemented recycling policies and mobilised fellow women for these instead of establishing individual local waste collection campaigns” (Weber 2013, 394). A similar phenomenon occurred in Japan during the war, which is discussed in more detail in Chapter 2.

Oldenziel and Veenis (2013) describe the history of the first glass recycling system in the Netherlands, which was organized through the activism of two housewives from the city of Zeist, Babs Riemens-Jagerman and Miep Kuiper-Verkuyl. These women met through a class on environmental

leadership run by Elisabeth Aiking-van Wageningen, a woman whose environmentalism was based in Christian ideals of stewardship of the Earth, and who believed that “middle-class women, in their role as household managers, were best positioned to turn the tide” of environmental degradation (Oldenziel and Veenis 2013, 457). Oldenziel and Veenis suggest that Aiking’s “belief in women’s moral compass and special role in helping social change” had its roots in nineteenth-century notions of “civic housekeeping,” “the belief that women had a special moral role to play in stemming the excesses of industrialization” (Oldenziel and Veenis 2013, 457). This idea informed the goals of the Netherlands’ largest women’s organizations, many of which took an interest in environmental pollution. Aiking, Riemens, and Kuiper represented the conservative side of women’s movements, favoring a collaborative approach to social change rather than the disruptive political tactics favored by the younger progressive feminist activists at the time. Oldenziel and Veenis identify three main factors that contributed to the success of Riemens and Kuiper’s recycling initiative in 1972: first, they “appealed to women’s responsibility as in charge of running the household;” second, they “successfully involved key stakeholders: local authorities, business players and women volunteers;” and third, they were able to capitalize on the glass industry’s flagging profit margin, as “[glass] producers were keen to apply the more cost-effective methods of reusing glass waste as an alternative to the bottle deposit system” (Oldenziel and Veenis 2013, 473). From this initial grassroots success, more cities in the Netherlands began to implement recycling programs, most of which involved collaboration with local authorities. However, as the authors point out, “the success ultimately rested on Dutch women’s willingness and eagerness to collect empty bottles and jars separately on behalf of the environment without the benefit of the older deposit system’s financial reward” (Oldenziel and Veenis 2013, 474). This case is one example of the way that gender (or the perception of gender roles) can affect recycling and waste management policies, and hints at the importance of women’s unpaid labor in supporting recycling systems, an issue of high relevance to the case of Japan’s waste management system.

Strasser’s (1999) social history of waste in the United States has a particular focus on the lives of women. Before industrialization, American women made and remade clothes, selling the rags to traveling peddlers, and fed kitchen scraps to livestock. With industrialization came urbanization and its attendant trash problems; sanitary reformers in local government took on the challenge of cleaning up the cities, bolstered by women activists motivated by the idea of “municipal housekeeping” (Strasser 1999, 121). She notes that many women writers and sanitary activists “concurred with the idea that women’s sphere went beyond the borders of their households” (Strasser 1999, 123), and that the housewife had a duty to keep not only her own household but also her community as clean as possible. Later, women would become the primary targets of advertising for new consumer goods and disposable products that made housekeeping much less time-consuming and unpleasant.

The research examined in this section so far has focused on historical connections between waste and gender, but many contemporary studies of waste in developed nations suggest that household waste management remains a highly gendered practice.

Evans's (2012) study of food waste practices in contemporary Britain notes the important role that food provisioning – and often its corollary, food wastage – plays in the performance of family: “it is well understood that those who assume responsibility for this activity (typically women) enact familial relations by giving consideration to the preferences and tastes of others within the household” (46). In his two examples of married couples, it is the wife who assumes primary responsibility for food provisioning, preparation, and wasting. This suggests that wasting can sometimes be seen as a gendered performance: the loving wife or caring mother ensuring that her family will have enough, even if it means that some food will end up in the garbage. Similarly, Metcalfe et al. (2013) found aspects of gender performance in their interviewees' conversations about the new food waste bins introduced in a suburb of south London. One married couple presented contrasting opinions about the appearance of their food waste bin, which Metcalfe et al. analyzed in terms of the couple's perceived gender roles:

One possible reason for this difference between their answers is that even though John is the one who takes care of this, Gabriela still feels that she may be seen as the one responsible, as the one who will be judged by others – here by the interviewer – and so she tells the interviewer how the box ‘should’ be managed. John, in contrast, tells how it is managed in practice, something that has fewer consequences in terms of how he might be judged. There is an issue of gendered respectability at play here. This gendered talk *about* the bin demonstrates a further point that the household is a far from ubiquitous ‘unit’ with one, unified approach to waste; instead it is a space in which individuals may perform different, sometimes conflicting, sometimes complementary, practices. (Metcalfe et al. 2013, 147)

Gabriela's assumption that the interviewer might think she, as a woman, is supposed to be in charge of the waste bin, as well as the fact that it is her husband who actually manages it, indicates her awareness of culturally specified gender roles which have in this case broken down.

Further evidence for gender differences in waste behavior is provided by Takahashi et al. (2013) in their survey of waste separation practices in Sweden. The authors find a striking gender difference in the separation of food waste: while over 90% of single female households and households with both a male and female adult reported separating food waste (when containers for this purpose were provided), not one single male household reported doing so. Takahashi et al. attribute this finding to “differences in lifestyles rather than attitudes” (Takahashi et al. 2013, 16), speculating that single males may be less

likely to prepare food at home, thus generating less food waste; they also acknowledge the possibility of gender differences in beliefs and values relating to waste and the environment.

Fredericks (2009) provides a valuable account of the connection between waste and the devaluation of women's labor in her study of "the gendered politics of trashwork" in Dakar, Senegal. She found that the women trash workers who had been core members of the youth movement that took over garbage pickup duties in Dakar during the city's garbage crisis in the 1990s were pushed out and laid off in large numbers once those jobs became salaried and sought after by men; in some cases the reason given for firing the women was explicitly that bosses thought "they needed the jobs less than their male counterparts" (Fredericks 2009, 133). This study provides valuable insight about the gendered valuation of public and private waste labor, an issue with great salience to household waste management in Japan. The next section will provide the necessary historical and policy background for understanding these issues in the case of Japan.

History and Current State of Waste Management in Japan

In Japanese as in English, there is a plethora of words for waste: the commonplace *gomi*, the formal *haikibutsu*, the archaic *jinkai*, and more specific words for various types of waste – *kuzu*, *boro*, *nama gomi*, *obutsu*, and so on. Waste in more abstract terms can be expressed as *muda*, meaning something that is useless or pointless, while *mudadzukai* refers to squandering something or using something wastefully.

In Japan, waste has primarily been studied as a technical problem to be solved, and Japanese research on waste is concentrated in the natural sciences and policy-focused social science fields. According to Tasaki (2009), research on waste and recycling in Japan in the 20th century was largely focused on "end-of-pipe" methods (i.e., focusing on how to manage and dispose of the waste already produced, rather than focusing on ways to limit the production of waste), and was heavily oriented toward technological advances in waste treatment methods. In recent years, and especially since the enactment of the Fundamental Law for a Sound Material-Cycle Society (*Junkangata shakai keisei suishin kihonhō*) in 2000, the focus shifted toward reducing waste, including systems to encourage citizens to cooperate in waste reduction and recycling programs. (As Tasaki et al. [2011] acknowledge, although current policy places priority on reduction and reuse, in practice official measures still tend to focus on recycling.) Some major themes of current Japanese waste research include: citizen participation in sorting and recycling (e.g. Maeda and Hirose 2009, Matsui et al. 2001, 2007); waste-related consciousness and behavior modeling (e.g. Nishio and Takeuchi 2005, Takase et al. 2006, Matsumoto and Nakajima 2013, Kanzaki and Terakado 2001); environmental education (e.g. Doi 2011); and international material cycles (e.g.

Hosoda 2007, Terazono et al. 2004). There are relatively few English-language works focused on the cultural impact of waste in Japan. One of these rare works is Kirby’s (2011) *Troubled Natures: Waste, Environment, Japan*, which provides valuable insight and examples of contemporary views on waste and the environment in Japan, although it has been criticized for its overemphasis on the role of an essentialized Japanese “culture” in Japanese environmental policies (Tamanoi 2012).

A very recent monograph fills much of the gap in English-language analysis of waste in Japan. Eiko Maruko Siniawer’s (2018) *Waste: Consuming Postwar Japan* is an insightful history of postwar understandings of waste in Japan. From the emphasis on not wasting even a scrap as a means of survival in the immediate post-war period, to the contemporary focus on decluttering and minimalism as a means to achieve happiness, the book demonstrates how ideas of waste and wastefulness in Japan have shifted through the postwar period, rejecting the idea of a fundamental and unchanging Japanese view of waste: “What becomes apparent when we think about waste more capaciously [...] is that different and often contradictory understandings of waste and wastefulness have existed in Japan at the same time” (Siniawer 2018, 9).

Scholars of modern Japanese waste history generally divide it into three periods based on the major policy concerns of the time: first, a focus on hygiene and urban sanitation (approximately 1900-1960s); second, a focus on environmental pollution (1960s-1990s), and the current period focusing on sustainability (1990s-2010s) (Tanaka 2007; Hezri 2010). The first, during which the policy goal was public health and sanitation, lasted from 1900, with the passage of the first waste management law, to approximately the 1960s. During this period, environmental protection was not a concern, and waste management was carried out in order to maintain a clean living space for residents. The second, which can be categorized as the period of environmental safety, lasted from the 1970s to the 1990s. This framework of waste management emerged from Japan’s era of rapid economic growth, which was also an era of rapid environmental degradation and industrial pollution, prompting a fundamental shift in environmental policy. The third period, from the 1990s to the present, is based in a global understanding of the importance of ecological conservation, and prioritizes recycling, the reduction of waste, and the creation of a sustainable society.

Table 1. Selected waste-related legislation by year

Year	Law
1900	Dirt Removal Law (Obutsu sōji hō)
1954	Public Cleansing Law (Seisō hō)
1967	Basic Law for Environmental Pollution Control (Kōgai taisaku kihonhō)
1970	Waste Management and Public Cleansing Law (Haikibutsu no shori oyobi seisō ni kansuru hōritsu)

1991	Resource Recycling Promotion Law (Saisei shigen no riyō no sokushin ni kansuru hōritsu)
	Amendment of Waste Disposal and Public Cleansing Law
1995	Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging (Yōkihōsō ni kakaru bunbetsu shūshū oyobi saishōhinka no sokushin tō ni kansuru hōritsu)
1998	Law for the Recycling of Specified Kinds of Home Appliances (Tokutei kateiyō kiki saishōhinka hō)
2000	Law Concerning Recycling of Materials from Construction Work (Kensetsu kōji ni kakaru shizai no saishigenka tō ni kansuru hōritsu)
	Law for the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Kuni tō ni yoru kankyō buppin no chōtatsu no suishin tō ni kansuru hōritsu)
	Fundamental Law for Establishing a Sound Material-Cycle Society (Junkangata shakai keisei suishin kihonhō)
	Law for Promotion of Recycling and Related Activities for the Treatment of Cyclical Food Resources (Shokuhin junkan shigen no saisei riyō tō no sokushin ni kansuru hōritsu)
	Law for the Promotion of Effective Utilization of Resources (Shigen no yūkōna riyō no sokushin ni kansuru hōritsu)
2002	Law for the Recycling of End-of-Life Vehicles (Shiyōzumi jidōsha no saishigenka tō ni kansuru hōritsu)
2012	Small Electrical and Electronic Equipment Recycling Law (Shiyōzumi kogata denshi kikitō no sai shigenka no sokushin ni kansuru hōritsu)

Sources: Tanaka 1999, Yamamoto 2003, Ministry of the Environment 2013.

Public regulation of waste in modern Japan began with the Dirt Removal Law (Obutsu sōji hō) of 1900. This law was part of a series of hygiene regulations intended to halt the spread of cholera and other infectious diseases that were becoming epidemic in Japan at that time; it followed the Infectious Disease Prevention Law (Densenbyō yobō hō) in 1897 and the Harbor Quarantine Law (Kaisō ken'eki hō) in 1899, and was promulgated concurrently with the former Drainage System Law (Gesuidō hō; this law was retired when the current Drainage System Law was enacted in 1959) (Yamamoto 2003).

The Dirt Removal Law mandated that the landowner, in the case of private land, or the city, in the case of public land, had an obligation to clean up filth (*obutsu*) and maintain hygiene, and that the municipality had the further obligation to dispose of the accumulated filth, preferably by incineration. This law established a precedent of municipal responsibility for waste management⁴ (Matsufuji 2003).

⁴ The Drainage System Law, enacted concurrently, dealt only with liquid waste. Because night soil had a high value at the time as fertilizer, that area of waste management was left under individuals' control until the Taishō period (1912-1926) (Yamamoto 2003).

Prior to the law, waste management had been carried out on an individual basis, or by trash pickers who collected and sorted garbage, and made their living by selling valuable materials found in it (Yamamoto 2003).

The next major waste management regulation was not enacted until 1954, after the end of both the war and the occupation. The Public Cleansing Law (*Seisō hō*) was promulgated for the purpose of “improving public health by sanitarily disposing of waste and cleaning the living environment.” The law differed from the Dirt Removal law in that it excluded “waste water” (*osui*) from the definition of waste (*obutsu*). Unlike the 1900 law, which dealt only with generalities and left specifics up to individual municipalities, the Public Cleansing Law mandated specifically that municipalities coordinate collection and disposal of waste, perform large-scale public cleaning at least once a year, and not merely deal with waste but manage it hygienically. It established a national and prefectural responsibility for waste management, and the obligation of citizens to cooperate in waste management (Yamamoto 2003).

The next phase of Japanese waste management policy appeared against the background of Japan’s rapid postwar economic growth. The boom in manufacturing and consumption led to a concomitant increase in waste: in the late 1960s, the volume of per capita waste generation increased roughly 6% per year, and production of plastics grew by as much as 25% per year (Ministry of the Environment 2006). Before the 1970s, the majority of waste was disposed of in unlined landfills or simply dumped in unpopulated areas; the resulting “secondary pollution” from the stench and the vermin these uncovered landfills attracted created a waste crisis in many urban areas (Matsufuji 2003).

As a stopgap measure to combat the burgeoning waste problem, the Emergency Measures Law for the Development of Living Environment Facilities was passed in 1963. The law mandated that the majority of waste in urban areas was to be incinerated, with the residue being disposed of in landfills. This measure was designed to reduce the burden on urban landfills, many of which were filled to capacity (Ministry of the Environment 2006).

This situation is exemplified by the case of the “Tokyo Garbage War,” which occurred from 1966 to 1974. At the time, Koto Ward received garbage from all of Tokyo’s 23 wards into its incineration plant and landfill. Koto had been a site of landfilling and garbage incineration since the Edo Period (1603-1867), due to its proximity to Tokyo Bay (Ishii 2006). With the rapid increase in waste generation in the 1960s, incoming waste began to exceed the facilities’ capacities, to the extent that the Ward began dumping combustible waste directly into Tokyo Bay (Funabashi 2011). In response to Koto residents’ demands that more facilities be built elsewhere, in 1966 the Tokyo Sanitation Bureau proposed a plan for a new incinerator to be sited in the Takaido area of Suginami Ward. Residents of Suginami, who had not been consulted, protested vehemently, and landowners at the proposed incineration site refused to sell their land. These protesters organized the Association Against the Construction of the Suginami

Incineration Plant in the Takaido Area (Suginami Seisō Kōjō Kami-Takaido Chiku Kensetsu Hantai Kiseidōmei) (Ishii 2006).

Negotiation between the Sanitation Bureau, Suginami Ward officials, and residents reached a deadlock; no progress was made for years, as alternative sites were considered and rejected. In September 1971, the Koto Ward Assembly passed a resolution threatening to deny the other wards access to its waste disposal facilities if a timely solution to the garbage problem wasn't reached. In response, Tokyo Governor Minobe declared a "war on waste" in a speech before the Tokyo Municipal Assembly, proclaiming, "The imminent garbage crisis is imperiling the daily lives of Tokyo residents" (Ariyama 2011). Ishii (2006) interprets this declaration of "garbage war" as expressive of the Governor's desire to forthrightly confront the difficulties caused by the garbage problem in all of Tokyo, but notes that it can also be thought of as encompassing Koto Ward's opposition to the other wards, the conflict between the municipal government and Takaido residents, the confrontation between Koto and Suginami, and potentially also the conflict within Suginami between Takaido and other areas considered as candidate sites for the construction of the incinerator.

The Tokyo Metropolitan Government proceeded with planning in cooperation with officials from Suginami ward, but as this process still did not include input from residents, the Takaido group remained unmoved, and some threatened to use force if the metropolitan government expropriated Suginami land for the incinerator (Funabashi 2011).

As the situation was still unresolved in December 1972, the government made plans to deal with the expected increase in waste during the New Year holiday by constructing temporary garbage collection sites at eight points around the city, one of which was near a public park in Suginami ward. On December 16, local residents organized to block the construction of the temporary facility. In response, the head of the Koto Ward Assembly organized a physical blockade of waste entering Koto Ward from Suginami. A swift response from the metropolitan government promising the construction of new facilities very soon persuaded Koto to remove the blockade that afternoon (Shibata 2001).

Still dissatisfied about the lack of resident involvement in the planning process, on May 15, 1973, Suginami protestors intruded on a planning meeting and forced it to adjourn. The following day, Koto Ward responded with another brief blockade of trash from Suginami. When Suginami residents again interrupted a meeting on May 21, Koto Ward organized not only another blockade, but furthermore enlisted the aid of the Tokyo Waste Management Union, which suspended garbage collection in Suginami. The incineration facility planning committee consisting of ward and metropolitan officials quickly issued an official statement promising a resolution by September, and Koto lifted the blockade on May 25 (Shibata 2001).

As no statement of progress with construction plans had been issued, Koto ward sent an official letter of inquiry to the committee on October 1, implying that they might block the delivery of trash from all the wards to the landfill if no solution was found. In November, the planning committee again decided on Takaido as the designated site, which decision was rejected by residents. Governor Minobe announced his decision to reopen procedures to forcefully expropriate the land for the project, and called for a vote on the subject. Takaido residents filed a lawsuit with the Tokyo District Court to stop the expropriation procedures. Twelve Takaido landowners and 516 residents were listed as plaintiffs in the suit, and 4,222 other residents entered their names as auxiliaries (Ishii 2006).

On November 21, 1974, the District Court issued a settlement of the case. The Court ruled that the incineration plant was to be built at the Takaido site, but that planning of the construction must involve the participation and agreement of residents; the facility was to employ state-of-the-art pollution controls; the garbage to be managed at the incineration site was to be limited to 600 tons per day, and the garbage was to be transported only along designated roads; community facilities were to be built to serve area residents; and financial compensation was awarded to the plaintiffs (Ishii 2006). Construction of the incinerator began in 1978, and was completed in December 1982.

The case resulted in the adoption in Tokyo of the waste management philosophy of “waste disposal in one’s own ward” (*jikunai shori no gensoku*), and in Tokyo governance more generally the right of residents to have a say in urban planning that might have negative environmental consequences (Funabashi 2011).

Partly as a result of the Tokyo Garbage War, efforts to create cleaner waste management technology flourished in the 1970s. The semi-aerobic landfilling method, sometimes called the Fukuoka Method, was developed by researchers from Fukuoka University and the city of Fukuoka in 1975; compared to anaerobic landfills, semi-aerobic landfills “quickly stabilize landfill sites after the land has completed its role as landfill”⁵ (Ministry of the Environment 2012b). This technique is widely used in Japan today, and is one example of waste management technology that is exported to developing countries as part of overseas development assistance (Matsufuji 2003; Ministry of the Environment 2012b).

In addition to rapidly increasing waste volume, Japan’s postwar economic growth also resulted in severe environmental and health problems related to industrial pollution. The so-called “Big Four”

⁵ According to the Ministry of the Environment, semi-aerobic landfilling technology works by the following method: “A leachate collecting pipe is set up at the floor of the landfill to remove leachate from the landfill, so that leachate will not remain where waste is deposited. Natural air is brought in from the open pit of the leachate collecting pipe to the landfill layer, which promotes aerobic decomposition of waste. This enables early stabilization of waste, prevents the generation of methane and greenhouse gases, which make it effective technology in the prevention of global warming” (Ministry of the Environment 2012b).

industrial pollution cases – mercury poisoning in Minamata and Niigata, bronchial asthma in Yokkaichi, and cadmium poisoning (known locally as *itai itai byō*, or “ouch-ouch disease”) in Toyama, all of which resulted in judicial victories for the victims at the Supreme Court – and the grassroots victims’, environmental, and anti-pollution movements that emerged from them generated domestic and international media attention, as well as widespread public anti-pollution sentiment (Almeida and Stearns 1998). This surge of outrage culminated in a special session of the National Diet held in December 1970 known as the “Pollution Diet.” Fourteen environmental laws submitted by the cabinet-level Central Pollution Countermeasures Conference were passed in this session, transforming Japan’s environmental regulations from barely effectual token measures⁶ to some of the strictest checks on industrial pollution in the world (Rosenbluth and Thies 2002).

One of these laws was the Waste Management and Public Cleansing Law (*Haikibutsu no shori oyobi seisō ni kansuru hōritsu*, abbreviated *Haikibutsu shori hō*), which replaced the 1954 Public Cleansing Law. This act separated waste into two categories, industrial and general (defined as all waste that does not fall into the category of industrial waste), and was the first to provide a legal definition of industrial waste. The law emphasized “preservation of the living environment” in addition to the hygienic disposal of waste, which had been the primary target of the 1954 law. Furthermore, the legal term for “waste” was updated from *obutsu* (filth, dirt), which had been used in the 1900 and 1954 laws, to the more technical *haikibutsu* (waste matter) (Yamamoto 2003). The industrial waste regulations introduced in the Waste Management and Public Cleansing Law, like the regulations in many of the pollution laws that were passed simultaneously, were based on the “polluter pays principle,” placing the responsibility for waste treatment and proper disposal on the corporations producing the waste.

After these laws were passed, industrial pollution in Japan decreased drastically, although environmental problems, especially illegal dumping, remained (Ministry of the Environment 2006). Public consciousness of environmental problems faded as environmental groups grew less active, and economic growth once again came to the forefront of public policy and public discourse until the mid-1980s (Rosenbluth and Thies 2002).

In the 1980s, environmental degradation, waste, and climate change became important topics for public policy across the globe. The World Commission on Environment and Development, established by the United Nations in 1983 to develop concrete proposals for sustainable development, held its final meeting in Tokyo in February 1987. The Chairman of the Commission, former Norwegian Prime

⁶ The 1967 Basic Law for Environmental Pollution Control (*Kōgai taisaku kihonhō*) was an attempt to respond to popular demands for pollution regulation without alienating large corporations; it famously recommended that environmental protection be undertaken “in harmony with the healthy development of the economy,” effectively ruling out strict pollution controls where they would interfere with industrial production (Rosenbluth and Thies 2002).

Minister Gro Harlem Brundtland, credited Japan with providing the impetus for the formation of the commission: “It was on the initiative of Japan in 1982 at the Special Session of UNEP’s Governing Council that our independent Commission was called for by the General Assembly in the fall of 1983” (Brundtland 1987).

At the same time, Japan was experiencing its “bubble economy” period: “a rapid rise in asset prices, the overheating of economic activity, and a sizable increase in money supply and credit,” which led to a brief period of increased wealth for nearly all levels of Japanese society (Okina et al. 2001, 397). This burst of affluence caused a corresponding slight increase in the generation of waste. These factors converged to prompt the Japanese government to enact the first of its recycling laws, the Resource Recycling Promotion Law (Saisei shigen no riyō no sokushin ni kansuru hōritsu), also known as the Recycling Law (Risaikuru hō) (Matsufuji 2003). This law was based partly on the German Waste Avoidance and Management Act of 1986, which “introduced the principle that the avoidance and recycling of waste were to be given precedence over waste disposal” (Schnurer 2002, 4). Japan’s Recycling Law similarly aimed to “promote the use of recycled resources as raw materials,” based on the idea that only materials which could not be reused should be managed as “waste” (Yamamoto 2003, 59). In the same year, the Waste Management and Public Cleansing Law was amended to reflect the newly acknowledged importance of reducing waste generation. The amendment also designated hazardous, explosive, and infectious waste as specially controlled waste material, and strengthened their regulation (Yamamoto 2003).

The concept of extended producer responsibility (EPR), in which manufacturers are responsible for their product’s post-consumption management, gained traction in European public policy in the early 1990s. Germany’s 1991 Packaging Ordinance, the first practical implementation of EPR in Europe, “assigned sole responsibility to retailers to take back product packaging from consumers and established refundable deposits on some types of packaging as a consumer incentive to return the packaging” (Sachs 2006, 68). Following the German Packaging Ordinance, the European Union enacted the Packaging Waste Directive in December 1994, which required member states to achieve 25-45% total recycling and 50-65% recovery of packaging materials by 2001, with a minimum of 15% recycling in each category of material (Bailey 2002). The purpose of the directive was to remove trade barriers between countries (Germany’s Packaging Ordinance had the effect of forcing non-German manufacturers to transport used containers long distances for recovery) and promote sustainable waste management.

These developments in European recycling policy, combined with domestic criticism of the Resource Recycling Promotion Law’s lack of efficacy in promoting source reduction of waste, as well as statistics indicating that packaging comprised 60% of Japanese household waste by volume in 1995, prompted the Japanese government to enact the Law for the Promotion of Sorted Collection and

Recycling of Containers and Packaging (Yōkihōsō ni kakaru bunbetsu shūshū oyobi saishōhinka no sokushin tō ni kansuru hōritsu), abbreviated as the Containers and Packaging Recycling Law (Yōkihōsō risaikuru hō), in 1995. The law, explicitly based on a policy of extended producer responsibility, established a system in which waste plastic, glass, and paper containers and packaging are collected from households by municipalities and retailers, and are then delivered to the Japan Containers and Packaging Recycling Association (JCPRA) for recycling. The JCPRA is a government-designated organization charged with managing packaging recycling; manufacturers of products that entail packaging waste are obliged to pay an annual fee to the JCPRA, which contracts recycling companies to process and recycle the waste. The recycling companies are then paid out of the manufacturers' fees after the JCPRA confirms that the recycling has been completed properly (Japan Containers and Packaging Recycling Association 2008). The 1995 law targeted glass containers, PET bottles, and paper cartons for recycling; a 2000 amendment expanded the law to include non-PET plastic packaging and non-carton paper packaging (Ministry of the Environment 2012b).

Japan's recycling policy was extended in 1998 with the Law for the Recycling of Specified Kinds of Home Appliances (Tokutei kateiyō kiki saishōhinka hō), known as the Home Appliance Recycling Law (Kaden risaikuru hō). The law was established "in order to reduce household appliance waste and contribute to the effective use of resources," and requires manufacturers of air conditioners, televisions, refrigerators and freezers, and washing machines to recycle these products; retailers are responsible for receiving the used appliances from consumers and delivering them back to the manufacturer for recycling (Ministry of the Environment 2006). Consumers wishing to discard their used appliances are obliged to pay a recycling fee. In 2012, the recycling rates for all types of appliances exceeded the standard set by the law (Ministry of the Environment 2013).

In 2000, the Japanese government announced the establishment of a "Sound Material-Cycle Society," defined as "a society that is realized by reducing the generation of waste from products, suitably utilizing waste as resources whenever possible and appropriately disposing of waste that cannot be used in any way, thereby controlling the consumption of natural resources and reducing the environmental load" (Ministry of the Environment 2007, 56). The year 2000 was declared the "First Year of Sound Material-Cycle Society," and the Fundamental Law for Establishing a Sound Material-Cycle Society (Junkangata shakai keisei suishin kihonhō) was passed in June. The law and its subsequent policies specify the hierarchy of waste management in a Sound Material-Cycle Society, based on the 3Rs (reduce, reuse, recycle), as the following five steps: 1) restraining waste generation, 2) reuse of materials, 3) regeneration of materials (through recycling, etc.), 4) heat recovery (generating energy through waste incineration, and 5) correct disposal of waste (Ministry of the Environment 2010).

The Fundamental Law was accompanied by four other pieces of legislation dealing with recycling and environmental issues in 2000. The Law Concerning Recycling of Materials from Construction Work (Kensetsu kōji ni kakaru shizai no saishigenka tō ni kansuru hōritsu), known as the Construction Material Recycling Law (Kensetsu risaikuru hō), requires businesses that undertake construction work meeting certain conditions to engage in sorted demolition and recycling of construction waste. The Law for the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (Kuni tō ni yoru kankyō buppin no chōtatsu no suishin tō ni kansuru hōritsu), abbreviated Law for Promoting Green Purchasing (Guriin kōnyū hō), obliges government entities, including local governments, to take ecological considerations into account when making official purchases or contracting services, and requires government entities to formulate and publish a green purchasing policy based on the policies of the law. The Law for Promotion of Recycling and Related Activities for the Treatment of Cyclical Food Resources (Shokuhin junkan shigen no saisei riyō tō no sokushin ni kansuru hōritsu), or Food Waste Recycling Law (Shokuhin risaikuru hō), promotes recycling by food-related businesses (manufacturing, distribution, sales, restaurant operation, and catering) and sets numerical targets for food waste recycling (as compost or animal feed). The Law for the Promotion of Effective Utilization of Resources (Shigen no yūkōna riyō no sokushin ni kansuru hōritsu) was enacted as an overhaul of the 1991 Resource Recycling Promotion Law. It targets specific industries, manufacturing sectors, and products for recycling, and imposes recycling and reuse obligations on corporations engaged in these specific industries or in manufacturing the designated products⁷ (Ministry of the Environment 2006, 2010, 2013).

These laws were followed by the 2002 Law for the Recycling of End-of-Life Vehicles (Shiyōzumi jidōsha no saishigenka tō ni kansuru hōritsu), which was enacted to address the growing problem of illegal dumping of used automobiles (a problem attributed to the increasing costs of proper disposal of vehicles' component parts) (Ministry of the Environment 2006). It requires automobile manufacturers to recycle airbags and other valuable materials and destroy remnant Freon, and sets

⁷ The law targets the following categories of businesses and products: “1) business[es] that should control the generation of or recycle by-products (specified businesses in which resources are saved: steel business, paper and pulp manufacturing business, etc.), 2) business[es] that should use recycled resources and recycled parts (specified reuse business[es]: paper manufacturing business, glass container manufacturing business, etc.), 3) products for which raw materials, etc. should be made rational use of (specified products for which resources are saved: automobiles, electric home appliances, etc.), 4) products for [which] the use of recycled resources or recycled parts should be promoted (designated reuse-promoting products: automobiles, electric home appliances, etc.), 5) products that should have labels for promoting sorted collection (products with designated labels: plastic containers and packages, paper-made containers and packages, etc.), 6) products that should be collected and recycled by their manufacturers (designated recycled products: personal computers, small rechargeable batteries), 7) by-products the use of which is promoted as recycled resources (designated by-products: coal ash generated by the electricity industry)” (Ministry of the Environment 2010).

numerical recycling goals for the targeted materials.⁸ Most recently, the Small Electrical and Electronic Equipment Recycling Law (Shiyōzumi kogata denshi kikitō no sai shigenka no sokushin ni kansuru hōritsu) was enacted in 2012 and came into effect April 2013; this law, which applies to about 100 types of small home electronics, requires local governments to collect the designated electronics and electronics businesses to promote their recycling (Yagai 2015).

Waste management in Japan today is characterized by a focus on management technology, including semi-aerobic landfills for disposal, highly efficient waste incineration facilities, and streamlined recycling centers. Despite prioritizing the first two of the “3Rs,” reducing and reusing, in its policy framework, Japan’s efforts have focused mostly on recycling, both of materials and of energy in the form of waste-to-energy incineration treatment (Tasaki et al. 2011). This tendency was acknowledged in the Third Fundamental Plan for Establishing a Sound Material-Cycle Society, accepted by the Cabinet in May 2013; nevertheless, most of the concrete proposals set forth in the document involve the recovery of materials from waste rather than efforts to limit the use of resources (Ministry of the Environment 2013).

The technological developments and policy changes described here have had a lasting impact on the way household waste is dealt with by municipalities as well as within Japanese homes. Household waste work is deeply connected to gender roles and the division of household labor between women and men. The next section will provide background information about the connection between gender roles and waste in Japan that contextualize the findings of this study.

Gender Roles and Household Waste in Japan

As discussed in a previous section, the idea, expressed by women activists in both Europe (Oldenziel and Veenis 2013, 456-459) and the United States (Strasser 1999, 121-123) during industrialization, that women in their role as housekeepers had a moral responsibility to ensure the cleanliness of the outside world was shared by middle-class women in Japan in the early twentieth century. Tamanoi (2009) examines two related sets of public discourse in which early activists for female suffrage engaged, democracy and purity (*jōka*), through the lens of two plays written by activist Kaneko Shigeri and published in the League of Women’s Suffrage (Fusen Kakutoku Dōmei) official publication, *Fusen (Women’s Suffrage)* in 1931 and 1933. Tamanoi shows how women’s suffrage activists embraced the idea that women, as the “purer” sex, were uniquely qualified to cleanse both the world of politics (through political activism) and the city itself (through proper waste management). The rhetoric of

⁸ This law was passed two years after the European Union’s End-of-Life Vehicles Directive in 2000, which similarly set recycling targets for automobile manufacturers (Sachs 2006). Accordingly, this law was likely designed to ensure the continued competitiveness of Japan’s automobile manufacturers in the European market.

“purification” (*jōka*), encompassing both moral purity and physical cleanliness, was frequently employed in these women’s political discourse (Tamanoi 2009, 816). Members of the League of Women’s Suffrage collaborated with local authorities to raise awareness about proper household waste disposal, and “Members of the League often visited the office of the Tokyo sanitation department (in uptown Tokyo) with flowers” (Tamanoi 2009, 827). This collaboration between women’s group and state authorities on issues of waste continued during the war, when “members of such women’s organizations as the Japan Women’s Patriotic Association (*Nippon aikoku fujin-kai*) and the Great Japan National Defense Women’s Association (*dai-Nippon kokubō fujin-kai*) began eagerly sorting trash and reducing its volume, not for the people of Fukagawa but for Japan to win the war” (Tamanoi 2009, 828). The topic of women’s groups’ cooperation with state and local authorities for garbage reduction and disposal efforts will be explored further in Chapters 1 and 2.

Turning to more recent times, Ben-Ari’s 1990 study of the newly implemented waste separation system in the town of Otsu analyzes the system, which called for residents to separate waste into five categories with separate bags, and bring their garbage to the designated collection point at the designated date and time, in terms of a co-production system (cooperation between citizens and authorities to carry out municipal services). After pointing out cultural differences that set the Otsu waste separation scheme apart from similar schemes in the United States, he concludes that “the Otsu garbage disposal scheme cannot be understood apart from the Japanese model of social authority and hierarchy of social units” (Ben-Ari 1990, 486). In particular, he points out the feature of requesting residents to write their family name on the bags before depositing them, and its attendant threat of social, rather than (or in addition to) official, sanction, as characteristic of the Japanese style of communal responsibility. Interestingly, he highlights city officials’ apparent assumption that, as “trash-related matters belong almost exclusively to the domain of women,” Otsu’s “professional housewives” would conform to the new rules as part of their “self-conception” as wives and mothers: “That is, city officials expected the new arrangements – involving the public presentation of the household and the kitchen – to become an aspect of housewives’ self-valuation and valuation by others” (Ben-Ari 1990, 484).

Buckley (1996), drawing on Ben-Ari’s study, expands on this, noting that “Garbage is treated by the professional housewife as a serious opportunity to be judged by her peers” (Buckley 1996, 448). She echoes Ben-Ari’s point about city officials’ awareness of the important role housewives would play in this new system: “The institutional rechanneling of women’s management of the outward flow of consumer waste from the household, functioned equally as a channel for the management of the women themselves – organizing dis-orderly desires and energy” (Buckley 1996, 450). Here she suggests that the situation in Otsu was one of direction and control imposed by authorities on the women themselves,

rather than at least a partial collaboration, as might be expected given the historical cooperation of women with waste management officials described by Tamanoi (2009).

Though he phrases it in terms of a threat of social sanction from the women's group toward other citizens, rather than as the women's group actively collaborating with authority to ensure the success of the new program, Ben-Ari's original study supports the idea of collaboration rather than coercion. He quotes the head of a small town women's organization: "The responsibility for garbage disposal belongs to each individual. But anyway in our neighborhood everyone complies with the new arrangements. You see, our women's association is noisy (*yakamashii*) and we'll make trouble for anyone who won't comply. We get something like 99 or 100 percent conformity" (Ben-Ari 1990, 485). Ben-Ari characterizes the new combination of official rules with the threat of social sanction as potential "incipient totalitarianism," but reading his description alongside Tamanoi's work on prewar women's groups' connection to waste management offers a broader view of the implications of Otsu's new waste collection scheme, which is similar to many of the garbage separation systems currently employed in Japanese cities.

Recent policy studies about waste in Japan reveal some interesting gender dynamics in Japanese household waste practices. Ohnuma et al. (2005) surveyed the residents of Nagoya about their attitude toward that city's newly introduced strict recycling policies. They found that the majority of residents approved of the new rules, and that most had a preference for strict penalties for non-compliance. The primary reasons for their acceptance were social benefit (the perception that the new rules would be beneficial for everyone) and procedural fairness (the perception that the process of implementing the new rules [adequate information provided and citizen input taken into account] had been fair). The questionnaire was distributed to households with the request that the person "mainly responsible for separating recycling materials and waste in the household" complete the survey (Ohnuma et al. 2005, 4): the respondents were 86.4% female and 13.6% male, indicating a striking gender difference in household waste management which the authors noted but did not investigate. Other studies, such as Negishi and Yuzawa (2003), Kurisu and Bortoleto (2011), and Na (2009), also indicate that women are more likely to be interested in garbage management and to be aware of environmental problems posed by garbage.

Matsumoto's (2011) analysis of sorted waste collection in Japanese cities showed that municipalities tend to "implement recycling programs that fit the demographic profiles of their residents," an unsurprising result considering that most municipalities solicit residents' feedback about the waste collection system both before and after the implementation of new policies (Matsumoto 2011, 325). Matsumoto also found that having fewer wives working full time was correlated with a city having a more complicated separation system: "With respect to full-time workers, we found that a one-hour increase in a husband's market work increased the number of waste separation categories by 0.23 while a

one-hour increase in a wife's market work decreased the number of waste separation categories by 0.47, perhaps suggesting that husbands and wives do not take equal responsibility for waste management at home" (Matsumoto 2011, 331).

Taken together, these studies suggest that in Japan, household waste management is the duty of the wife, whether or not she is also engaged in full-time or part-time work outside the home. We might speculate with some justification that the 13.6% male respondents in Ohnuma et al.'s study were bachelors, and that in all or nearly all of married couple households it is the wife who takes primary responsibility for managing waste. Chapter 3 will more closely examine the gendered division of household waste labor in Japanese cities.

As numerous studies have shown, traditional gender roles remain firmly entrenched in Japanese society (Rosenbluth 2007, Eto 2010). Japan's economic system, long grounded in the tradition of "lifetime employment," in which employees work long hours and sacrifice family life in exchange for guaranteed job security, tends to discourage women from pursuing full-time paid work after marriage or childbirth (Rosenbluth 2007). As a result, the majority of married women in Japan become full-time housewives or engage in part-time work, taking full responsibility for housework while their husbands work long hours. It is therefore perhaps unsurprising that it is predominantly women who deal with the household garbage. However, Matsumoto's study suggests that even when the wife works full time, she still takes responsibility for waste disposal, indicating that gender roles, rather than mere economic necessity, at least partially determine the division of labor with regard to waste.

Tamanai's article suggests a long tradition of cooperation between housewives and waste management officials, which, as Ben-Ari's study indicates, likely still exists. This background, combined with evidence from policy studies that include gender as a variable, reveals that Japan's present system of complicated separation of waste in the household is predicated on the existence of the fulltime housewife. Put one way, this system is dependent on and exploitative of women's unpaid labor; put another, it is the continuation of a venerable tradition of collaboration between authorities and women to accomplish the necessary task of municipal waste management. This collaborative/coercive relationship is in many ways representative of the relationship between women and the nation-state in modern Japan. The next section will discuss these dynamics in terms of citizenship and national belonging.

Gendered Citizenship and Waste

Citizenship is a complex concept with multiple and contested definitions. The term encompasses formal political rights as well as social and cultural rights (Hearn et al. 2010, 8). It is both a legal status and a category of belonging that can have deep connections to individual and group identity (Kymlicka

1995; Ito 2005). Citizenship is typically discussed as a feature of the modern nation-state (Hearn et al. 2010), and theorizations of citizenship often distinguish between a rights-based conceptualization of citizenship associated with the political tradition of liberalism and a conceptualization focused on the duties or obligations of the citizen associated with civic republicanism (Munday 2009).

Marshall's classic 1950 analysis of citizenship and social class defines citizenship as "full membership of a community" (Marshall 1950, 8), and identifies three elements of citizenship: civil, political, and social. The civil aspect of citizenship consists of "the rights necessary for individual freedom – liberty of the person, freedom of speech, thought and faith, the right to own property and conclude valid contracts, and the right to justice" (Marshall 1950, 10). The political element is defined as "the right to participate in the exercise of political power, as a member of a body invested with political authority or as an elector of such a body" (Marshall 1950, 11). Finally, the social element of citizenship is "the whole range from the right to a modicum of economic welfare and security to the right to share to the full in the social heritage and to live the life of a civilized being according to the standards prevailing in the society" (Marshall 1950, 11). Marshall traces the history of each of these aspects of citizenship in the context of Western Europe and the United Kingdom in particular, and claims that civil rights came first and were well-established by the mid-nineteenth century, followed by political rights in the late nineteenth and early twentieth centuries, and finally social rights experienced an upswing beginning in the twentieth century (Marshall 1950, 27-28). Marshall's work has been critiqued extensively by numerous scholars for its failure to examine the ways gender, race, and other social markers affect citizenship as rigorously as it analyzed the role of social class (Lister 1990, 2003; Walby 1994; Yuval-Davis and Werbner 1999).

Pateman (1985, 1989) was one of the first political theorists to present a feminist critique of liberal conceptions of a universal, abstract citizen, pointing out that these theories of citizenship in fact assume a male citizen, whose participation in civic life is predicated on women's domestic labor in the private sphere. Women have traditionally been excluded from full citizenship on the basis of their sex, and their inclusion in the public sphere has been predicated on and circumscribed by their expected duties in the private sphere, particularly motherhood (Siim 2000, 2).

These scholars are careful to note, however, that the "public" and the "private" do not exist as discrete arenas in binary opposition to one another, but "exist in an interactive, overlapping relationship" (Munday 2009, 256). Lister (1990), discussing the rhetoric employed in political discourse about government welfare programs in the United Kingdom, points out "the great artificial divide between the 'public' and the 'private' which legitimates women's economic dependence on men and which covers up its consequences as being matters of private not public concern" (Lister 1990, 446). Lister's work on citizenship emphasizes that women's work in the private sphere, typically unpaid and unrecognized,

presents a significant barrier to their access to political rights and to full citizenship (Lister 1990, 1993, 2003). In particular, women are less likely than men to be involved in formal politics. However, they may be more likely to engage in informal political activity at the local level, which is often overlooked in measures of political engagement (Lister 2003, 28-29, 32).

This point is particularly relevant in the case of Japan, which is typically described as having low political engagement at the national level but high levels of engagement in local communities (Pekkanen 2006). Significantly, women are extremely underrepresented in politics – less than 10% of Lower House members are women. One reason for this severe gender gap is that politics is widely seen, by both men and women, as a man’s realm. LeBlanc’s (1999) groundbreaking ethnographic study of “the political world of the Japanese housewife” amply demonstrates this tendency. LeBlanc’s housewife informants, although they engaged in a variety of public activities that elsewhere might be seen as expressions of citizenship, rejected any suggestion of political motivations. LeBlanc posits that in Japan, housewife is in fact a *public*, rather than a private, role; the volunteer and socially-oriented activities that many housewives engage in are expressions of this public role. Furthermore, this public housewife identity is by definition apolitical: a housewife who engages in formal politics is no longer seen as a “true” housewife. This type of apolitical public engagement by housewives represents what LeBlanc terms “bicycle citizenship:” “She is caught in a bind that is best described as bicycle citizenship. The impetus for her citizenship is tied to her housewife identity, but that identity seems ill-suited for action as a citizen” (LeBlanc 1999, 86).

Mackie (2002, 203) argues that “the archetypal citizen in the modern Japanese political system is a male, heterosexual, able-bodied, fertile, white-collar worker,” and that this model of the ideal citizen limits in practice the access of those with marginalized identities to full citizenship. In contrast to this conception of a one-sided hierarchy of citizenship with men at the top and women ignored, I argue that in the postwar period the Japanese state adopted an *explicitly* gendered citizenship regime, which advocated different ideals of citizenship for men and women. In Japan the role of the full-time housewife was valorized and held up as the ultimate aspiration for women, and remains the standard today (Goldstein-Gidoni 2017). In Japan, the social, economic, and political order is based on “the assumption that most people will live in heterosexual nuclear families with a male breadwinner and female primary caregiver” (Mackie 2002, 206). Ito (2005, 54) notes that the family is in fact constitutive of Japan’s, and indeed any, “citizenship regime.”

Given this social structure, we might posit a two-tiered, gendered citizenship regime. For men, the ideal citizen is, as Mackie states, “a male, heterosexual, able-bodied, fertile, white-collar worker” (Mackie 2002, 203). For women, I argue, the ideal citizen is a heterosexual married woman with children who does not engage in paid work outside the home. Good citizenship, for the housewife citizen, involves,

first, managing one's home and caring for one's husband and children, and elderly relatives if necessary. Secondly, it involves contributing to one's local community through social and volunteer activities. As LeBlanc notes, these public activities are necessary to demonstrate good citizenship, yet should remain apolitical: "In the world of volunteer activity, however, good citizenship was of great importance. ... Yet while the volunteer world was plush with props of democratic life – public concern, discussion, action, openness – the volunteer experience did not lead easily to a political citizenship" (LeBlanc 1999, 89). This is because ideal citizenship for women in Japan does not involve politics. If we follow Marshall's trifold division of citizenship into the political, the civil, and the social, then Japanese women's citizenship encompasses only the social aspect. Conversely, it seems likely that ideal citizenship for men in Japan *excludes* social citizenship to the extent that the ideal male citizen is expected to focus on economic and political activities rather than engaging with his local community. In this way, Japan's citizenship regime is unequally and hierarchically divided along gender lines, with each citizen expected to perform their citizenship in the properly gendered manner. This conception may help explain the unusually low number of women politicians in Japan, and the tendency of those few to emphasize their roles as housewives and mothers in their political campaigns and policies (LeBlanc 1999). A 2014 incident in which a woman politician was heckled by male colleagues for not having children during a session of the Tokyo Metropolitan Assembly illustrates this point as well: when women attempt to exercise their citizenship outside the social sphere prescribed for their gender, they are frequently punished (Osaki 2014). (Incidents in which men face social pressure and backlash from their employers for requesting paternity leave, which one survey indicated has happened to 10% of working men in Japan, demonstrate the converse [Otake 2014].) Japanese women, therefore, may express their citizenship through the public performance of the housewife role. The foremost marker of this role is, of course, housework. It is this aspect of the housewife identity that waste can help illuminate.

Managing household waste is one task of the housewife that crosses the boundary between the "private" and the "public:" the family's garbage, an intimate record of daily life in the home, must be deposited in the communal garbage pickup area for all to see. Most municipalities in Japan require that waste be disposed of in a transparent plastic bag, often a designated bag produced by the city that must be purchased by residents, so that sanitation workers (and anyone else who happens to look) can see if the garbage has been separated correctly. This system makes visible to community members not only the contents of their neighbors' daily lives, but also how well a neighbor is executing her household duties in the form of garbage separation. As Ben-Ari's (1990) study indicates, failing to comply with garbage separation regulations can affect the errant housewife's (or indeed any woman's) social standing in the community. Management of household waste is significant as one of the most visible signs of a housewife's domestic duties, the proper performance of which confirms her belonging in the community

and the nation. Household waste work can therefore be considered a gendered expression of citizenship for Japanese women. Waste, as a site that connects the public and private, the state and the family, represents an ideal focus for examining the gendered processes of national belonging in modern Japan.

Sources, Methods, and Structure of the Dissertation

This research is rooted in the interdisciplinary field of “area studies,” and “Japan studies” in particular. Drawing as it does on methods and theories from fields such as anthropology, sociology, history, linguistics, political science, economics, and so on, area studies has frequently been the subject of debates over methods and theory in the social sciences and humanities. Here I follow Bestor et al. (2003) and others in emphasizing the unique scholarly contributions of area studies to both theory and methodology: “area studies researchers develop a mediated research technique or methodology that draws upon the cultural specificity of the research setting and uses that local insight as a means to modify general, standardized disciplinary research methods” (Bestor et al. 2003, 7-8). The primary “methodology” by which area researchers do so is fieldwork, which Bestor et al. define as “gathering information in situ: on site, non-experimentally, from and about human informants,” emphasizing its non-exclusive interdisciplinarity (Bestor et al., 3).

I began my own fieldwork with an open-ended research question about the relationship between waste and gender in Japan, informed by a feminist research praxis and theoretical framework which “places women's issues, concerns, and lived experiences at the center of research inquiry” (Hesse-Biber 2008, 336). Following LeBlanc (1994), I chose a mixed-methods ethnographic approach involving participant observation, interviewing, and unstructured observation to study this topic. Citing the work of Japanese sociologist Ehara Yumiko, LeBlanc posits that “the best means of probing the Japanese woman's relationship with political power is the ethnographic method” because this approach allows the researcher to “begin to understand the source of a subject's actions as what Ehara calls ‘something midway between force and freedom’” (LeBlanc 1994, 24). This approach is particularly necessary in studying women's roles and relationships in the Japanese nation-state because of their marginal position in relation to political and economic power: “In other words, people, especially women, are often conscious of acting in a manner that is neither a complete submission to a power system that dominates them nor a fair execution of what they want to and believe that they should do. ... Women are caught having to act in response to a social structure that does not recognize their motivations as universally valid, and they are likely to be conscious of a dissonance between what they think and how their actions appear” (LeBlanc 1994, 24-25). My study also involved a significant historical component necessitating research in archives and libraries, which, per Gordon (2003), can also be seen as a type of fieldwork for historians, especially

those undertaking research in Japan: “For the historian, the library and the archive are the most common sites of what one might call our fieldwork. ... Figuratively ‘excavating’ material from archives is one of our defining research activities, comparable to the literal digging in dirt of the archaeologist or the participation in a local festival of the anthropologist” (Gordon 2003, 261-262).

I carried out my fieldwork in Japan for about 22 months in 2014-2016, supported in part by a Japan Foundation Doctoral Fellowship (2014-2015). From June-August 2014, I was affiliated with the National Institute for Environmental Studies (Kokuritsu Kankyō Kenkyūjo, NIES), a governmental research institution focused on environmental issues located in Tsukuba, Ibaraki Prefecture, Japan. During these months I undertook preliminary research on waste management in Japan and visited archives in Tokyo to collect sources. From September-December 2014 I was based at Kobe University (Kobe, Hyogo Prefecture), where I carried out a participant-observation study with the student recycling and waste reduction group Gomi Japan, which is based in the Economics Department of Kobe University. While this data does not appear in this dissertation, the interviews and observations I conducted with the student members of Gomi Japan helped me to refine and narrow down the concepts I would focus on my larger ethnographic study of waste in Tsukuba City. In January 2015, I returned to Tsukuba and resumed my affiliation with the National Institute for Environmental Studies for the next eight months, during which I carried out an ethnographic study of household waste management in Tsukuba City. I returned to Leiden University in September 2015 to analyze my fieldwork data and consult with my advisor and research project members, and it was determined that I should return to Japan for supplementary data collection. From January to August 2016, I returned to Tsukuba and conducted further household interviews, as well as interviews and participant observation with two volunteer recycling organizations in Tsukuba, the results of which are detailed in Chapters 3 and 4.

The preliminary sources that provided me with foundational information about waste in Japan included secondary sources such as edited volumes, review articles, and historical overviews of the waste management field, as well as primary sources such as government reports, white papers, and statistics. Secondary sources on waste in Japan included Hashimoto et al. 2006, Yamamoto 2008, Yagishita et al. 2004, Kawai and Tasaki 2013, Tasaki 2009, Tasaki et al. 2011, Tanaka 1999, Tanaka 2007, Yamamoto 2003, Yoshida 1999, Urabe and Inamura 2006, and Yagi 2006. Edited volumes and monographs on the development and current state of waste management in Japan included Taguchi 2007, Haikibutsu Gakkai Gomi Bunka Kenkyū Bukai 2006, Haikibutsu Gakkai 2003, Mizoiri 1988, Mizoiri 2007, and Mizoiri 2009. Governmental reports and white papers included Ministry of the Environment 2006, 2007, 2010, 2012a, 2012b, and 2013. Statistics included “Haikibutsu shori jigyo jittai chōsa tōkei shiryō (ippan haikibutsu)” compiled by the Zenkoku Toshi Seisō Kaigi on behalf of the Ministry of Health and Welfare (Kōseishō) for the years 1976-1994, and the statistical compilation “Nihon no haikibutsu shori

(Haikibutsu tōkei)” for 1972-2016, compiled by the Kōseishō Kankyō Eiseikyoku Suidō Kankyōbu Seibika (in 1998 the governmental agency publishing the statistics changed to the Kankyōshō Daijin Kanbō Haikibutsu Risaikuru Taisakubu Haikibutsu Taisakuka).

Chapters 1 and 2, which focus on garbage reduction and recycling movements led by women in the first half of the 20th century, are based on archival materials collected from the *Fusen* archives of the Ichikawa Fusae Center for Women and Governance, and the women’s magazine archives of the Ishikawa Takeyoshi Memorial Library, both located in Tokyo, as well as newspaper articles found through the online digital archives of the *Asahi Shinbun* and *Yomiuri Shinbun*. For the sources located in physical archives, I looked through women’s magazines published in the target range of years (approximately 1929-1945) for articles related to waste and recycling, and made copies of the relevant articles, which I then read, analyzed, and translated where appropriate. For the digital newspaper archives, I used keyword searches for the relevant terms (*fujin/josei*, *gomi/jinkai*, *undō*, *dantai*, *kaishū*, *boro*) in various combinations in the target range of years, then downloaded, analyzed, and translated the relevant articles. All quotations from Japanese sources that appear in this dissertation are my own translations unless otherwise indicated.

I analyzed the primary source documents, including newspaper and magazine articles, government reports, and my own interview transcripts, using textual analysis, which interrogates the text according to the following criteria: “the rhetorical context of the text (Who created the text? What are the authors' intentions? Who is the intended audience?), the specific textual characteristics (What topic or issue is being addressed? How is the audience addressed? What is the central theme or claim made? Is there evidence or explanation to support the theme or claim? What is the nature of this evidence or explanation?), and the wider context of the text (How does the text relate to other texts in the same genre or format?)” (Lockyer 2008, 865). During my fieldwork, I recorded detailed field notes by hand in a notebook while in the field and during interviews, which I then transcribed into a digital text document; these field notes also became a source for textual analysis.

I chose Tsukuba as my primary fieldwork site by “following [my] networks” (Bestor 2003): my initial affiliation with the Sustainable Material Cycle Systems Section of the National Institute for Environmental Studies Center for Material Cycles and Waste Management Research, arranged by my advisor, provided me with valuable contacts among waste management researchers that opened doors to both official and unofficial waste management institutions in Tsukuba City. Bestor’s advice for finding a field site guided my decision to “determine where my contacts are strongest and where introductions from existing contacts could be most effective, and go there; don’t try to find an ‘ideal’ place and then try to find a connection into it” (Bestor 2003, 315). My contacts at NIES helped me to arrange introductions to and interviews with representatives of various waste-related organizations in Tsukuba, as well as with

ordinary residents who allowed me to conduct household observations and interviews related to waste management in the home. In this dissertation, I have used pseudonyms for all informants and interviewees in order to protect their privacy; I chose to give each a pseudonymous name rather than a number or letter because I wanted to emphasize their humanity and avoid reducing them to a mere data point.

I conducted all interviews using a semi-structured interview method, in which “the researcher asks informants a series of predetermined but open-ended questions” (Ayres 2008, 810). All of the interviews were conducted in Japanese.⁹ I used a written interview guide consisting of a list of topics to be covered in the interview, which I provided to informants in advance, along with my contact information should they have questions before or after the interview. I used the same set of topics in my interview guide for my “household” informants, and a tailored, specific guide for each organizational interview. Rather than rigidly following my interview guide, I chose to let my informant’s responses determine the course of the interview, using follow-up questions to “elicit further information or build rapport through the researcher's use of active listening skills” (Ayres 2008, 810).

Interviews with representatives of companies or organizations typically occurred in the interviewee’s office or workspace, often accompanied by a tour of the organization’s waste facilities. Interviews with Tsukuba residents took place either in the resident’s home or in a local café. All interviews were recorded using an audio recording device with the permission of the interviewee. I also took photographs of waste facilities with the permission of the interviewee. A list of interviews and fieldwork observations with representatives of Tsukuba waste and recycling organizations is attached as Appendix 1. Appendix 2 contains a list of interviews with Tsukuba residents and household observations. An example of an explanation sheet provided to organizational interviewees is provided as Appendix 3, and the explanation sheet provided to household interviewees is provided as Appendix 4. Appendix 5 contains a list of fieldwork interactions related to the volunteer recycling organization NPO Tsukuba Creative Recycle.

This dissertation explores the relationship between waste and women’s national belonging in Japan during two distinct time periods. The first half of the dissertation examines women-led waste movements in the 1930s-40s, a tumultuous period during which Japan experienced rapid social and political change, including shifts in socially acceptable roles for women in public life. The cases examined in these chapters demonstrate how waste issues, often framed as feminine concerns even when they occurred in the male-dominated arenas of municipal governance or wartime mobilization, could be used by women to advance their own social and political goals. In the 1930s, the question of what role

⁹ I passed the highest level (N1) of the Japanese Language Proficiency Test (Nihongo nōryoku shiken) in July 2013; while my Japanese conversational proficiency does not approach a native level, it was sufficient to conduct interviews without undue linguistic difficulty.

women should play in society was of pressing importance to both the state and to women's organizations. National bureaucracies and prefectural and local governments developed strategies during the 1920s and 1930s to "mobilize" women to achieve state aims (Garon 1997, Koyama 1999). Women's organizations worked toward their own diverse goals, often in cooperation with the state and local governments. Chapter 1 analyzes one such case, the 1933 Tokyo garbage campaign, in which the women of the League used a relatively local, municipal issue – the city's garbage problem – to advance their goal of improving women's status and ultimately attaining the vote. Chapter 2 focuses on the role of women and women's groups in wartime waste reduction and scrap collection activities. These cases show how women used waste-related activities to engage actively with their communities and sometimes local governments, demonstrating their ability to belong fully to the local community, and ultimately, the nation – what Koyama (1999, 2014) terms *kokuminka*, or "the incorporation of women into the nation-state."

The second half of the dissertation examines household waste management and women-run local recycling volunteer groups in the city of Tsukuba, Ibaraki, in the present day (data collected 2014-2016). These chapters emphasize the local and community-based nature of both municipal waste management and women's volunteer activities. Today, the majority of women in volunteer organizations participate as a means of community involvement at the local level, often in cooperation with municipal governments, rather than to achieve a national goal. Although explicitly feminist groups with the goal of redefining the role of women in society do exist in Japan today, the goals of most women's volunteer groups, including those focused on waste and recycling, tend to have more modest and local goals (Nakano 2005). For this reason, I chose to study what can be considered fairly "typical" small, community-oriented grassroots volunteer recycling organizations run by women in Tsukuba, Ibaraki.

The juxtaposition of these time periods and levels of analysis is useful as a snapshot of waste-related activities and gendered expectations in two very different periods in modern Japan. In the 1930s and 1940s, some women engaged in local waste-related campaigns with an eye toward a national goal, while today, women's volunteer waste activities tend to be oriented more toward community involvement and social improvement at the local level.

Chapter 1, "Our Mission as Women:" Technology, Policy, and Women's Rights in the 1933 Tokyo Garbage Campaign¹⁰, focuses on the "garbage campaign" (*gomi undō*) initiated in Tokyo in 1933 by the Tokyo Women's League to Purify City Politics, a women's activist group whose core members were leaders of the country's nascent women's suffrage movement. The campaign was created to address the city's garbage problem: newly constructed waste incineration facilities in the Fukagawa area of

¹⁰ Parts of Chapter 1 were previously published as "'Our Mission as Women:' Cooperation between Women's Groups and City Authorities in the Garbage Campaign of Prewar Tokyo" in *Gendered Food Practices from Seed to Waste*, edited by Eveline Buchheim et. al, *Yearbook of Women's History* 36 (2017): 183-196.

downtown Tokyo were generating massive clouds of noxious smoke, which experts believed was caused by excessive amounts of waste as well as high water content. The Women's League embraced the issue, organizing a lecture series about correct household waste separation and treatment, distributing thousands of fliers, assisting in the city's contest for a "cleaning slogan," and even producing a movie about the garbage problem at the behest of city authorities. Drawing on archival sources, this chapter analyzes the interactions of the women's activist group, city authorities, and other actors involved in the Tokyo garbage movement of the 1930s. It focuses on the ways in which the Tokyo Women's League leveraged garbage as a municipal problem into a social movement as a conscious political strategy, employing and transforming discourses about women to promote their goal of elevating the status of women in public life. For the city, collaboration with the women's group in the garbage movement not only helped to resolve the underlying problem by increasing citizens' awareness (and, hopefully, actual practice) of correct waste separation, it also deflected public attention away from the city's responsibility for the lingering smoke problem in Fukagawa. This case highlights the myriad ways "waste" can be employed as a political and discursive tool, as well as the active role of the women's group in establishing a cooperative relationship with city authorities in order to advance their political goals.

Chapter 2, "Uncovering the Waste of Society:" Women and the Japanese State in Wartime Waste Campaigns¹¹, discusses wartime waste reduction and scrap collection campaigns as a site of the construction of gender and family ideology during the war. During the Asia-Pacific War, official campaigns and propaganda from the Japanese government generally encouraged women to participate in the war effort in a manner in keeping with their "traditional" roles in the family system. For example, after a nationwide scrap collection campaign in July 1938, an *Asahi Shinbun* article, under the sub-heading "The efficacy of men outside, women inside," quoted an official from the Tokyo City General Mobilization Department emphasizing the importance of "each individual serving at the appropriate post." However, not all activities to help the war effort were initiated by the state; women's groups organized their own waste prevention campaigns, some of which did not adhere to traditional gender roles. In the 1938 "finding waste in the streets" event, organized by the Japan Federation of Women's Organizations to contribute to the government's weeklong home-front economic mobilization campaign, hundreds of women went out into the streets of Tokyo, recording any waste they observed. In contrast to the nationwide, government-organized scrap collection campaign, which was lauded by the newspaper, the *Asahi Shinbun* coverage of the event organized by the women's groups was somewhat condescending. This chapter emphasizes that wartime mobilization was largely directed by the state, but in some cases

¹¹ Parts of Chapter 2 were previously published as "'Uncovering the Waste of the World:' Women and the State in Japanese Wartime Waste Campaigns, 1937-1945," *U.S.–Japan Women's Journal* No. 53 (2018): 27-46.

women organized their own independent waste campaigns, demonstrating that women could be active agents in shaping their roles in the nation-state.

Chapter 3, *Household Waste Work, Gender, and National Belonging: Garbage in Tsukuba City*, focuses on waste, women, and the state in the present day. Waste remains a key point of connection between women and the state today, in the form of mandatory municipal waste separation requirements. Studies have shown that women take on the majority of the household labor necessitated by waste separation requirements (which have been increasing in complexity since in the late 1980s), and local governments reliant on proper household separation for the waste management system to function direct their awareness-raising efforts at women specifically. Today, waste separation is both a mundane part of women's household tasks and an integral part of the contemporary waste management system. This chapter is based on interviews, observations, and documents collected during fieldwork in Tsukuba, Ibaraki from 2014-2016.

Chapter 4, *Waste Reduction, Citizenship, and the Housewife Identity: Recycling Volunteers in Tsukuba*, examines attitudes and behaviors related to gender and waste among community volunteer recycling organizations, based on interviews and participant observation with two recycling groups in Tsukuba, Ibaraki in 2015 and 2016. Tsukuba Creative Recycle is a non-profit organization based in Tsukuba. Its principal activity is operating a second-hand "recycle shop;" it also donates clothes and other items to those in need in Japan and overseas. The second volunteer recycle organization I worked with, Tsukuba Recycle Market, is a flea-market-style open-air buying and selling event that is currently held four times per year in Tsukuba's Chuo Park. Its goal is to reduce waste by providing an opportunity for ordinary people to sell unwanted items that might otherwise be thrown away. The majority of volunteers who contribute to both groups are women, and most are motivated to participate for social reasons, although many also care deeply about reducing waste. Using these two groups as examples, the chapter focuses on waste-related volunteering as a gendered expression of civic engagement.

Finally, the concluding chapter summarizes the main points of each body chapter and restates the main arguments of the dissertation regarding the relationship between gender, waste, and civic participation in Japan.

Chapter 1

“Our Mission as Women:” Technology, Policy, and Women’s Rights in the 1933 Tokyo Garbage Campaign

Fishbone: Anyway, those humans, they are incredibly stupid.

Cabbage Leaf: They really are. I shouldn’t even be here yet. I could have been used in soup, or pickled. I am still completely edible...

Fishbone: Me too. There are a lot of nutritious ingredients inside me. Blithely throwing me out without absorbing them really is a regrettable loss to the state.

Kaneko Shigeri, “Oharu-san no yume” (Miss Oharu’s Dream), 1933

This chapter examines the case of the “garbage campaign” (*gomi undō*) carried out in 1933 by the Tokyo Women’s League to Purify City Politics (Tōkyō Fujin Shisei Jōka Renmei), a coalition of women’s groups spearheaded by the League for Women’s Suffrage (Fusen Kakutoku Dōmei), in cooperation with the Tokyo municipal sanitation department. The campaign was a response to the “smoke problem” (*baien mondai*) affecting Fukagawa Ward and surrounding areas, which was caused by two new waste incineration plants. The case of the 1933 garbage campaign, at the intersection of technological progress, public health policy, and feminist activism, is an illuminating example of the struggles and compromises that defined the debates over the role of women in the Japanese nation-state. Before analyzing the cooperation between the city of Tokyo and activist women in the 1933 garbage campaign, the first section of this chapter will provide background information on how waste incineration came to be the preferred method of waste management in early twentieth century Japan.

The Beginning of Modern Japanese Waste Management and the Rise of Incineration

The history of modern waste management in Japan is in many ways a history of the development of garbage incineration. Incineration became popular as a waste management technology in Japan in the

late nineteenth century, around the same time as in European nations and the United States. Although initially hailed as a panacea for the garbage woes of modern cities, the limitations and downsides to incineration soon became apparent, and its popularity had declined in most countries by the 1920s – except in Japan, where incinerator construction was booming. By 1933, 113 cities (93% of larger cities in Japan at the time) had at least one incineration plant (Mizoiri 2009, 4). Significantly, incineration remains the dominant method of waste treatment in Japan today.

Incineration as a method of waste disposal was first introduced at the municipal level in Nottingham, England in 1874. The improved incinerator designed by Alfred Fryer in Manchester two years later set the standard for the incineration facilities (known as “destructors” in Britain) that quickly proliferated across Europe and America. The first garbage incinerator in the United States was built in 1885 on Governor’s Island, New York (Melosi 2005). At the time, engineers and urban planners considered incineration to be the most sanitary and effective method of waste disposal: “Burning waste at high temperatures seemed to be the perfect disposal method – no stench-ridden dumps, no pollution of streams and other watercourses, no unsanitary landfills. One doctor called cremation of garbage ‘a great sanitary device’” (Melosi 2005, 39). Despite high praise from experts, incineration quickly fell out of favor in the United States for a variety of reasons including its high cost, excessive smoke generation, and the greater availability of land for dumping (Melosi 2005, 40). One reason cited at the time for the failure of incinerators to run as efficiently as those in Europe was the higher water content of American waste, a problem that also later arose in Japan but was addressed very differently. Incineration in the United States was largely abandoned by the first decade of the twentieth century: “Of the 180 furnaces erected between 1885 and 1908, 102 were abandoned or dismantled by 1909” (Melosi 2005, 40).

The decline of incineration in Britain followed soon after. Scarcity of food and other resources during the First World War (1914-1919) prompted a shift in the discourses surrounding waste management from a focus on public health (from which standpoint incineration was considered the most sanitary method) to a focus on conserving and reusing “waste” materials: “There was a renewed enthusiasm for recycling in the latter stages of the First World War, for example, when ‘salvage’ reemerged as an alternative to incineration. Its advocates argued that burning was a scandalous waste of raw materials needed for the war effort” (Cooper 2010, 1034). Concerns about resource recovery, as well as high costs and other factors, resulted in the end of incineration as the dominant method of waste management in Britain.

These developments in Europe and the United States had a significant impact on waste management policy in Japan. In the latter half of the nineteenth century, Japan was undergoing rapid, state-directed industrialization. Leaders of the new imperial government during the Meiji Period (1868-1912) were well aware of the importance of industrial capitalism in a world dominated by industrialized

colonial European powers, and made promoting industry and developing an industrial economy a priority among their state-building policies, as revealed by the prominence of the Meiji slogan “rich nation, strong army” (*fukoku kyōhei*) (Gordon 2009). In order to quickly match Europe’s level of technology and infrastructure, the Japanese government sent students on study tours in Europe and the United States to learn about “all manner of institutions and practices, from schools to factories to parliaments” (Gordon 2009, 73). Foreign knowledge was also put to use in rapidly developing industrial enterprises: “At great expense in the 1870s, the new government engaged several thousand ‘hired foreigners’ (*oyatoi gaijin*) from over twenty nations... [who] offered important advice in a wide range of economic and social endeavors” (Gordon 2009, 71).

Although waste disposal was not a major priority for Meiji leaders, urban waste management systems also underwent modernization and industrialization toward the end of the Meiji period. Traditional methods of waste management, including open dumping, land filling, ocean dumping, and use of waste as fertilizer or animal feed, continued largely unchanged through the first few decades of Meiji, as national leaders and city planners focused on more pressing issues, like building railroads and modernizing water distribution systems (Mizoiri 1988). Rag pickers or scrap dealers (called *hiroiya*, *kuzuya*, or *bataya*), who had collected scrap and other reusable materials from urban households since the Edo period (1603-1868), took on a larger role during Meiji, and in some cities formed private companies or were organized into official associations (Mizoiri 1988, 17). However, rapid industrialization and urbanization resulted in a burgeoning amount of urban waste, which in many cities began to overwhelm traditional channels of waste disposal. As was the case in coastal cities around the world, dumping of waste in the ocean was a popular form of waste disposal in Japan, and the increasing pollution of bays and waterways prompted many cities to look to new, technological solutions for the garbage problem. But the most direct impetus for the modernization of the waste management system mandated by the first national waste law in 1900, as well as for the designation of incineration as the preferred method of waste treatment, was the spread of infectious disease.

The first national law regulating waste management in Japan was the Waste Cleansing Law (*Obutsu sōji hō*), promulgated in 1900. It was passed as one of a series of measures designed to prevent the spread of disease, cholera in particular. Cholera first entered Japan in 1858, carried by a Dutch ship sailing from Java, and spread throughout the country. Outbreaks occurred sporadically throughout the Meiji period. Two major outbreaks in 1879 and 1886 resulted in the deaths of more than 100,000 people (Mizoiri 1988, 24). Early efforts to regulate urban waste at the local level were often designed as protective measures against epidemics, and waste management was primarily discussed in terms of hygiene and public health.

In 1883, the Greater Japan Private Hygiene Association (Dai Nihon Shiritsu Eiseikai) was established for the purpose of spreading information about hygiene to the general public (Mizoiri 1988, 26). This group played a large role in raising awareness about waste during the Meiji and Taishō periods. A report issued in 1888 by the association's vice-chairman, leading Meiji physician and statesman Nagayo Sensai, entitled "The hygienic conditions in the homeland during the previous year" (Zen'nendochū naikoku eiseijō no keikyō) stated that the following three measures should be considered the foundation of cholera prevention: 1) drainage of sewage (*osui sotsū*), 2) the removal of filth (*shinyō haijo*; "filth" here refers to human waste or night soil), and 3) the cleansing of garbage (*jinkai sōji*) (Mizoiri 1988, 27). These principles soon became the basis for national policies on urban sanitation and disease prevention.

At the time the Waste Cleansing Law was passed, it was widely viewed as a common-sense measure to prevent the spread of infectious disease. This law followed the 1897 Infectious Disease Prevention Law (Densenbyō yobō hō), the 1899 Water Supply Law (Suidō hō), and the 1899 Harbor Quarantine Law (Kaisō ken'eki hō), and was promulgated concurrently with the Drainage System Law (Gesuidō hō) in 1900 (Yamamoto 2003). These laws were passed quickly and were in many ways emergency measures; although the necessity of such laws had been discussed and the specifics debated for years, draft bills were drawn up and voted on with the utmost haste in response to an outbreak of plague, known in Japan as "the pest" (*pesuto*), in the western area of Japan beginning in the fall of 1899.

A summary of the draft bill of the Waste Cleansing Law described its purpose in terms of urban hygiene as the basis for disease prevention: "Water supply [...], sewerage, and waste cleansing are the three great requirements that should serve as the foundation for hygiene in the cities" (quoted in Mizoiri 1988, 33). A Diet member advocating for the bill in the lower house made the following plea:

This draft law is legislation of the utmost urgency. At present the "pest" is spreading in certain areas, and in addition to the Water Supply Law which was enacted previously, I [must] by all means press [upon you] the necessity of enacting the Drainage System Law and the Waste Control Law. (quoted in Mizoiri 1988, 30-31)

The bill was approved without modification in the House of Representatives, and with minor revisions in the House of Peers. It passed on March 6, 1900 as Law No. 31, and took effect on April 1 of the same year. Implementation regulations for the law were approved on March 8.

The Waste Cleansing Law revolutionized urban waste management in Japan, and many of its stipulations have had a lasting effect. First, the law placed the ultimate responsibility for waste collection and disposal on municipalities, shifting the burden of removing household waste from citizens to local

governments. If a household placed their waste in an appropriate container (made of metal or wood, with a lid, that would not leak garbage), they could be assured that the city, or a company or individual subcontracted by the city, would collect it. The law also established a system of sanitary inspectors (*sōji kanshi riin*) who were to oversee and regulate sanitation work (Tokyo Sanitation Bureau 2000, 45).

The component of the Waste Cleansing Law that has had perhaps the greatest influence on waste management in Japan was Article 5 of the law's implementation regulations, which recommended (but did not require) that waste be disposed of through incineration: "Waste should, to the extent possible, be incinerated" (*jinkai wa narubeku kore o shōkyakusubeshi*; quoted in Mizoiri 2009, 4). At the time, incineration was considered the most sanitary method of waste disposal. The personal items of disease victims were burned as a matter of course after disease outbreaks, and the large-scale incineration of all urban waste seemed rational, efficient, and beneficial for public health. The public health and sanitation experts who helped to draft this and other disease-prevention laws at the time considered incineration to be an obvious and desirable solution to urban waste problems: "In the end, the only method of waste treatment that fulfilled the conditions of being sanitary, large-scale, and convenient was the incineration method" (Mizoiri 1988, 84).

On 19 March 1933, a communication from the Hygiene Bureau of the Ministry of Internal Affairs entitled "Points of caution regarding the implementation of the Waste Cleansing Law" (*Obutsu sōji ho shikō ni kansuru chūi no ken*) was issued to prefectural leaders; the document requested prefectural authorities to provide guidance to municipalities in establishing incineration facilities (Mizoiri 1988, 32). At the time, only a few Japanese cities had garbage incinerators, but the promulgation of the Waste Cleansing Law sparked a boom in construction of incineration facilities, as well as in scientific studies of incineration and other waste disposal methods (Mizoiri 1988, 84).

The first waste incineration facility in Japan was built in Tsuruga, Fukui Prefecture, in 1897, three years before the Waste Cleansing Law was passed. It is unclear why this mid-sized town (Tsuruga, designated a city [*shi*] in the present day, was at that time only a town [*chō*]) decided to invest in a new form of waste management technology even before incineration was recommended by the government. Mizoiri (1988, 40) speculates that foreign influence may have played a role in Tsuruga becoming the first Japanese city to adopt incineration – the city was made a designated trading port in 1896 and had significant trading contacts with the Russian city of Vladivostok – but notes that as other cities with more extensive foreign ties did not build incinerators, this explanation is somewhat lacking.

Perhaps as a result of Tsuruga's initiative, early adoption of incinerators was concentrated mainly in the Hokuriku region (now part of the Chūbu region) in the northeastern part of Japan's main island. A survey of the waste management methods of 52 cities and 28 towns carried out by the *Journal of the Greater Japan Private Hygiene Association (Dai Nihon shiritsu eiseikai zasshi)* at the end of 1900

revealed that 13 cities and 5 towns had incineration facilities. These municipalities, including Fukui, Toyama, Kanazawa (which reported possessing four incineration facilities), and four towns in Saga Prefecture, tended to be concentrated in the Hokuriku area, although incinerators were also present in other cities across the country (Tokyo Sanitation Bureau 2000, 57). Although Japan's leading cities were not among these earliest adopters, within a few years Osaka would emerge as the national leader in research and development on waste incineration.

At the turn of the century, the city of Osaka produced 300 tons of garbage a day (Mizoiri 1988, 42). The majority of waste that could not be used as fertilizer was disposed of in the open sea. Although waste was generally not dumped directly in the harbor, due to wind conditions and other factors Osaka Bay was periodically inundated with garbage to the extent that it impeded harbor traffic. This situation made the development of new waste management facilities a priority, and in 1900, following the Waste Cleansing Law, the city established an "experimental incineration furnace" (*shikenteki shōkyakuro*) (Mizoiri 1988, 42). The first full-size incineration facility in Osaka was completed in 1903, and a second followed in 1907; by this time, the majority of the city's waste was incinerated (Mizoiri 1988, 62). Researchers in the city continued to conduct experiments in order to refine incineration technology. Two new incinerators were built in 1916, and in 1919 these facilities were used to conduct experiments on electricity generation and dry distillation (Tokyo Sanitation Bureau 2000, 58). Improved designs based on the findings of the Osaka research became the basis for new incineration facilities across the country. One of the engineers who worked on the Osaka experiments, Iwashashi Motosuke, later moved to Tokyo and designed the Fukagawa Waste Disposal Plant (Fukagawa Jinkai Shori Kōjō), completed in 1929 (Tokyo Sanitation Bureau 2000, 58). The construction of an incineration facility in this area, which had long been used for waste dumping and land filling, exacerbated the pollution problems that resulted in the 1933 garbage campaign.

Waste Management in Tokyo: Incineration and Inequality

In the first decade of the twentieth century, garbage in Tokyo was collected from the waste containers of households, shops, and public spaces, and carried to one of 36 waste collection stations in the city. There it was divided into three categories: materials for fertilizer (*hiryō akuta*), valuable material (*yūkabutsu*), and discards (*suteakuta*). Fertilizer was transported to nearby Chiba Prefecture, where it was sold to farmers. Valuable materials were typically gathered by workers (contractors before 1908, and directly employed by the city thereafter) and sold; wooden materials could be sold as fuel to factories or bath houses, while metal and cloth were sold to scrap dealers (*toriatsukai gyōsha*) (Tokyo Sanitation Bureau 2000, 48).

The majority of the remaining discards were taken to a dump site in the Hirahisa area of Fukagawa Ward, which was established in 1901. Before 1908, there were problems with contractors simply dumping the waste into the bay instead of taking it to the designated dumping area, but this issue was largely resolved (and the conditions of Tokyo waterways improved) when the city began direct management of waste disposal (Tokyo Sanitation Bureau 2000, 51). The site was also periodically used for open-air garbage incineration (*roten shōkyaku*), generally as an emergency measure during epidemics¹² (Tokyo Sanitation Bureau 2000, 52). In 1910 the city established a more permanent open-air incineration site at Etchūjima-cho, also in Fukagawa Ward. The smoke and pests generated by open-air garbage burning caused frequent complaints from residents. In 1921, an organization called the League for the Realization of the Abolition of Garbage Incineration Grounds (Jinkai Shōkyakujō Teppai Kisei Dōmei) attracted more than 30,000 members (Tokyo Sanitation Bureau 2000, 454).

During this time Tokyo's population, and with it the volume of garbage, was growing rapidly. Following the Waste Cleansing Law of 1900, the city of Tokyo made plans to construct modern incineration facilities in order to manage the large volume of waste more hygienically, but due to difficulties with siting, opposition from residents, budget constraints, and other problems, these plans repeatedly failed to materialize. From 1903 to 1914, nine different candidate sites for the construction of a waste incinerator were proposed, but each was ultimately rejected (Tokyo Sanitation Bureau 2000, 52).

The first incinerator in Tokyo prefecture was the Ōsaki Waste Incineration Site (Ōsaki Jinkai Shōkyakujō), built in 1924 in Ōsaki-chō (in the northern part of present-day Shinagawa Ward). Its construction followed the Great Kantō Earthquake of 1923, which resulted in more than 100,000 deaths and destroyed most of the city. In the immediate aftermath of the disaster, waste was dumped in the street or disposed of in waterways, and disease caused by unsanitary conditions claimed yet more victims. Normal waste collection services did not resume for months. During this time central municipal administration of sanitation and other services was impossible, and these duties were taken up by local governments and residential associations (Tokyo Sanitation Bureau 2000). Many of Tokyo's neighborhood associations were established in the aftermath of the earthquake (Hastings 1995). The construction of the incinerator in Ōsaki-chō was a reflection of the need for localized waste management, especially in non-coastal areas of Tokyo. Several other wards and neighborhoods in the northern and

¹² Emergency burning of waste was necessitated not as a routine hygienic measure to kill any germs that might be lurking the city's garbage, but rather because during epidemics in Tokyo, farmers in Chiba refused to accept any waste fertilizer from the city. As a result garbage accumulated rapidly and open-air burning was used as a quick and large-scale disposal method (Tokyo Sanitation Bureau 2000, 52).

western parts of Tokyo¹³ followed suit in the next few years. These facilities were managed locally, rather than by the city of Tokyo, until the administrative restructuring of 1932 (Tokyo Sanitation Bureau 2000).

Though municipal and national authorities regarded incinerators as necessary and beneficial, local residents often did not agree, and plans for incinerator construction were frequently met with angry protests. One prominent dispute over the construction of an incineration facility, foreshadowing the later conflict over the incinerators in Fukagawa, occurred between Shibuya-chō and Meguro-chō in the mid-1920s. Mizoiri (2012, 125) describes this dispute as one of Tokyo's earliest "garbage wars" (*gomi sensō*). In 1924, Shibuya-chō began planning to build a waste incinerator. Initially a site was found within Shibuya and the land purchased, but after vigorous protest from residents, the site was abandoned and planners instead chose a suitable location in neighboring Meguro-chō, purchased the land, and began construction of the facility. Meguro residents protested, but as the facility had already received a permit from the metropolitan police department, construction continued. The facility was completed in November 1925 and began running initial tests. When these resulted in clouds of black smoke and complaints of bad smells from hundreds of residents, the facility's permit – which stipulated that the incinerator produce no smoke and no smells, conditions essentially impossible for incineration technology at the time – was suspended until improvements could be made and further experiments were run (Tokyo Sanitation Bureau 2000, 69).

When word spread in April 1926 that the metropolitan police department was considering revoking the incineration facility's license altogether, the assemblies of Shibuya and Meguro began lobbying Diet members of opposing political parties to encourage the police to favor their side of the dispute, bringing the conflict to national attention and worsening relations between residents of the two areas. On 4 August 1926, residents from both areas had gathered at the facility to observe an incineration test, which was scheduled to end at 7:00 p.m. When the fires were still lit after the scheduled ending time, over one hundred Meguro residents began protesting. The group clashed with police, and three Meguro residents were arrested but quickly released. Tensions were high, but negotiations between Shibuya and Meguro resulted in a reluctant compromise in December 1926. Under this agreement, Shibuya would pay 15,000 yen each year to Meguro, Meguro's garbage would be accepted at the incinerator without a fee, and Meguro institutions would be allowed to draw on Shibuya's water supply for free. The incinerator was in operation for less than five years before it was closed in 1932 (Tokyo Sanitation Bureau 2000, 70).

Disputes and siting protests like those that occurred in the Shibuya-Meguro "garbage war" delayed efforts by the city of Tokyo to build a much-needed large-scale incineration facility for several

¹³ Garbage from northern and western areas of Tokyo was typically transported to southeastern areas adjacent to the sea to be burned and used as landfill along the coast. After the earthquake disrupted these transportation routes, towns and wards to the northeast faced with necessity of disposing of their own waste became the first to adopt incineration facilities (Tokyo Sanitation Bureau 2000, 68).

years. Eventually, however, through the influence of Iwahashi Motosuke, a leading incineration researcher from Osaka who became a Tokyo city engineer in 1926, plans to build a high-temperature waste incineration facility in Fukagawa were approved in 1927. The No. 1 Fukagawa Waste Disposal Plant (Fukagawa Jinkai Shori Kōjō Daiichi Kōjō) – the first incinerator to be built and managed by the city of Tokyo, and intended to serve a large proportion of the city rather than a single town or ward – began operations in 1929 (Tokyo Sanitation Bureau 2000, 73).

The new facility in Fukagawa, a high-temperature incineration plant based on the latest technology, could handle an impressive 131.25 tons of waste each day. In contrast, the incinerator with the largest capacity in Tokyo previously could handle only 37,500 kilograms of waste per day (Tokyo Sanitation Bureau 2000, 68). The new facility was also designed so that valuable waste (things which could be resold) would be separated from the rest before incineration. However, even the large capacity of the new facility was not enough to handle all of Tokyo's waste, which by 1930 amounted to about 310,000 tons a year. The waste that could not be managed in the facility was dealt with in existing traditional open air waste burning grounds, which were considered unsanitary and less than optimal by waste management experts and city engineers.

These issues coincided with national-level changes to waste management policy. In 1930, the Waste Cleansing Law was amended “in order to resolve the improvement of facilities relating to waste disposal” (*obutsu shori ni kansuru shisetsu no jūjitsu o kisengatame*; quoted in Mizoiri 2009, 1). The revised regulations changed the wording of the clause regarding the specified waste disposal method: the word *narubeku*, “to the extent possible,” was eliminated, so that the regulations stated simply, “Waste should be incinerated” (*jinkai wa kore o shōkyakusubeshi*) (Mizoiri 2009, 4). This change meant that incineration was essentially a requirement for municipalities, like Tokyo, that had the means to build incineration facilities.

Given these policy changes and the overloaded state of the existing Fukagawa incinerator, the city of Tokyo quickly decided to build additional facilities, and in June 1930 it was determined that two more incinerators would be built near the first. They were to be in the same style but incorporating the latest technological improvements (Tokyo Sanitation Bureau 2000, 73). The Fukagawa Second and Third Waste Disposal Plants began operation in March 1933.

The new facilities at Fukagawa almost immediately created problems with large amounts of smoke and flies. Protests from residents forced the city to try to resolve the problem, which also attracted the attention of a rather unexpected group: women suffragists. The next section will briefly explain the League for Women's Suffrage and the related Tokyo Women's League to Purify City Politics before moving on to a discussion of the intersection of these groups with the waste management system in the 1933 women's garbage movement.

The League for Women's Suffrage and the 1933 Tokyo Garbage Campaign

In 1933, the League for Women's Suffrage initiated a far-reaching campaign to combat the city's garbage problem caused by the newly constructed waste incinerators in Fukagawa. The League organized a lecture series about household waste separation, distributed thousands of fliers, assisted in the city's contest for a "cleaning slogan," and even produced a movie about the garbage problem at the behest of city authorities. This section will analyze the cooperation between the women's group and city authorities in the 1933 Tokyo garbage campaign, with a focus on the League's initiation of the campaign as a political strategy to advance the rights of women. It will first present background information about the League for Women's Suffrage and the Tokyo Women's League to Purify City Politics before describing and analyzing the Fukagawa smoke crisis and the women's garbage campaign itself.

The League for Women's Suffrage was founded in 1924 as the League for the Attainment of Women's Political Rights (Fujin Sanseiken Kakutoku Kisei Dōmeikai) by Ichikawa Fusae, one of Japan's most prominent feminist leaders both before and after the war, and Kubushiro Ochimi, who at the time was the president of the Japan Women's Suffrage Association. The new group, like many Tokyo institutions, was created in the wake of the devastation of the 1923 Great Kantō Earthquake: "Ichikawa and Kubushiro mobilized the spirit of cooperation engendered among women involved in the earthquake relief work to launch an independent suffrage group" (Molony 2011, 12). The group's name was shortened to the League for Women's Suffrage (Fusen Kakutoku Dōmei) in 1925¹⁴ (Tamanoi 2009).

The League published a monthly magazine called *Fusen* (Women's Suffrage) from 1927 to 1935 (from 1936 to 1941, the publication continued as *Josei Tenbō* [Women's Outlook]), which featured articles about topics of interest, notices about and reports on the group's activities, entertainment pieces such as poems, stories, and plays, and other types of writing as well as advertisements. The group organized an annual National Women's Suffrage Convention beginning in 1930, and advocated relentlessly for women's right to participate in civic life. Two draft bills to grant women limited rights to vote at the municipal level, introduced in May 1930 and February 1931, both failed to pass the House of Peers; these setbacks, as well as the changes in the political atmosphere following the 1931 Manchurian Incident, seem to have caused Ichikawa and the League to set their sights somewhat lower: "While full citizenship and the vote were the ideal, civic engagement even without the vote was a step in the right direction" (Molony 2011, 15).

¹⁴ Molony (2011, 12) explains the reason for the name change as follows: "After the passage of 'universal' suffrage in February 1925, when long-standing tax qualifications for men's suffrage were finally eliminated, the League shortened its name to the Women's Suffrage League (Fusen Kakutoku Dōmei, hereafter WSL) to draw attention to the hypocrisy of 'universal' suffrage (*fusen*) without women's suffrage (also pronounced *fusen*, although written with different characters)."

In the early 1930s, the League for Women's Suffrage focused most of its efforts on issues clearly related to the "women's sphere" such as motherhood protection, and on municipal issues. The League was one of twenty groups that joined together to create the Motherhood Protection League (Bosei Hogo Renmei) in 1934, which advocated for state recognition of the importance of motherhood and financial assistance for all mothers. The group was instrumental in the successful passing of the Mother-Child Protection Law in 1937 (Molony 2011, 23-24).

One of the League's major concerns during this period was corruption in Tokyo city politics. The group closely followed elections for the Tokyo City Assembly, formally endorsing eight candidates in the 1929 elections, and issuing condemnations of candidates in the 1933 election who were suspected of bribery. In March 1933, in response to a series of high-profile bribery and corruption scandals involving Tokyo City Assembly members, the League for Women's Suffrage joined together with five other women's groups to form the Tokyo Women's League to Purify City Politics (Tōkyō Fujin Shisei Jōka Renmei), which engaged in public advocacy against bribery and corrupt politicians before the March 1933 elections (Mizoiri 2010). The suffragist women's involvement in the 1933 garbage campaign was under the auspices of this latter group; following Tamanoi (2009), I will refer to both the League for Women's Suffrage and the Tokyo Women's League to Purify City Politics as "the League" unless a distinction is necessary.

"A Hell of Smoke:" The Fukagawa Garbage Crisis

The Fukagawa Second and Third Waste Incineration Plants began operation in March 1933. The two facilities combined contained eight cranes, which could each pick up 1.5 tons of waste, and five smokestacks, and began burning 750 tons of waste per day. The plants emitted a huge amount of foul-smelling smoke and attracted flies in large numbers, making life miserable for local residents and business impossible for local shops and establishments. Citizen anger at the facilities grew, and residents quickly started a protest movement. At a Tokyo City Assembly meeting, a representative of Fukagawa harshly criticized the city government: "Why must only the citizens of Fukagawa take in all of the garbage from the 15 wards, suffering in a hell of smoke?" (Tokyo Sanitation Bureau 2000, 86). On May 4, 1933, the Tokyo edition of the *Asahi Shinbun*, a popular national newspaper, reported on the facilities with the headline "Like a hell of smoke – All of Fukagawa cries out" (*Asahi Shinbun*, May 4, 1933). On May 22, 1933, an assembly of ward residents approved a resolution entitled "Abolish the Murderous Incinerator" (Satsujinteki shōkyakujō teppai), and presented this to the mayor of Tokyo the following day (Tokyo Sanitation Bureau 2000, 86). In response, the city took measures such as limiting the plant's hours of operation and stopping the practice of open-air burning in the facility's dumping ground. In June

1933 the city established a committee to investigate how to improve waste management techniques, and in September created an emergency investigative council for waste management facilities.

The problem quickly drew the attention of the Tokyo Women's League to Purify City Politics. On 12 May 1933, fifteen members of the group went on a study tour of the controversial facility. The visit was reported in the *Asahi Shinbun*, which noted that the two main causes of the smoke problem were the extremely large volume of garbage being collected and incinerated, and the high water content of the garbage. The newspaper concluded that the ultimate lesson of the visit was "to remove water from tea leaves before throwing them away" (*Asahi Shinbun*, May 13, 1933). Three of the League members who visited wrote about their experience in the June issue of *Fusen*; their article emphasized the importance of separating kitchen waste and other waste for effective waste management (*Fusen* 7-6 1933).

The visit to the waste incineration facility made a deep impression on the League. On June 14, they held a meeting to discuss how to solve the garbage problem; they decided to hold a lecture series about the importance of waste separation "to promote awareness among housewives" (*Fusen* 7-7 1933a, 14). Two days later, Kaneko and another League member visited the office of the head of the Tokyo Sanitation Department and "conveyed thoughts from the woman's perspective," asking for the department's financial support and official sanction (*Fusen* 7-7 1933a, 14). On June 23, they received word that the department had agreed to finance and support their lecture series.

The lecture series was to be accompanied by an educational stage play, "Miss Oharu's Dream" (Oharu-san no yume), written by Kaneko Shigeri and published in *Fusen* in July 1933, which would increase its ability to attract spectators. The purpose of the play was to emphasize the importance of proper garbage separation to the middle class housewives of Tokyo, enlightening viewers in the "new areas for separated disposal of kitchen waste (*chūkai*) and mixed waste (*zakkai*) which will begin this year" about correct separation methods (*Fusen* 7-7 1933a, 14). This was a reflection of recent changes in Tokyo's waste collection policies.

In addition to mandating incineration for municipal waste, the 1930 revision of the Waste Cleansing Law provided that, in cases where local authorities deemed it necessary, garbage should be separated into two containers, one for kitchen waste (*chūkai*) and one for mixed waste (*zakkai*), for separate collection. This provision was meant to ensure that incinerators could run more productively: the consensus among experts at the time was that many of the problems incineration facilities were facing – large quantities of smoke, excessive unburned residue, swarming flies, unpleasant smells – were caused by high water content in food waste. By separating out kitchen waste, which was instead to be diverted to fertilizer and pig feed, the remaining mixed waste (which included paper, rags, earthenware, etc.) could be incinerated more efficiently (Mizoiri 2009, 1).

The city of Tokyo began implementing separate collection of kitchen waste and other waste in central areas of the city comprising 70,000 households in June 1931. In July 1933 the area for separated collection was expanded to 100,000 households, or about 40% of the old area of the city (that is, excluding the wards that were added in the administrative restructuring of 1932) (Tokyo Sanitation Bureau 2000, 82). This expansion of the area for separated collection was part of the city's response to the smoke problem, and the focus of Kaneko's educational play "Miss Oharu's Dream." Separated collection was expanded to include all of the old city beginning in 1934.

The two reasons that officials gave for the smoke problem during the League members' visit to the Fukagawa facility, excessive overall waste volume and high water content, are also clearly reflected in "Miss Oharu's Dream:" viewers were exhorted to use and reuse such items as cabbage leaves and empty bottles instead of throwing them away, and also to carefully separate the garbage so as not to inconvenience the garbage man and the furnace operator. This is no coincidence – Kaneko Shigeri, the author of the play, was one of League members who went on the study tour of the incineration facility. Interestingly, however, the smoke problem – the impetus for both the League's visit to the waste facility and the city's decision to begin implementing separated collection – is not mentioned in the play at all (Kaneko 1933; Tokyo Sanitation Bureau 2000, 86). As Tamanoi points out, the League undertook these garbage-related activities "primarily in order to become enlightened women who were conscious of national hygiene" and to increase their status in public life with the goal of gaining women's suffrage, not primarily to help the people of Fukagawa (Tamanoi 2009, 827).

"Miss Oharu's Dream"

In order to understand the League's garbage campaign, it is useful to closely examine the play "Miss Oharu's Dream," which was the entertainment that drew large crowds to the campaign's lectures about municipal waste management in Tokyo in the summer of 1933. The play was written by Kaneko Shigeri, a prominent and creative suffragist who also wrote other plays that were published in *Fusen*, on her own initiative.¹⁵ The themes of the play reinforce the campaign's messages about household waste separation as a civic duty and a necessary step in proper waste management.

The play centers on the Yamanaka household, where Miss Oharu is employed as a maid. In the opening scene, two neighborhood housewives (A and B) happen upon one another in front of the Yamanaka house. They discuss convenient ways to get rid of household garbage. Housewife B explains that she is going to throw away a watermelon rind into the ditch, which is a good method because the

¹⁵ For an insightful analysis of the themes of purity (*jōka*) employed in "Miss Oharu's Dream" and another of Kaneko's plays, "Women's Suffrage is the Key," see Tamanoi 2009.

ditch is on a hill so the garbage rolls down instead of accumulating and making a stink. Housewife A is saying that she will try that method from now on when Miss Oharu enters with a wrapped object, which she places in the trash can. Housewife B asks why Miss Oharu always wraps kitchen waste in newspaper before throwing it away. Oharu explains that Mrs. Yamanaka has asked her to do this, because it absorbs the water of the kitchen waste, making the trash can cleaner and easier for the garbage man to deal with, and also that absorbing the water makes the waste easier to burn later. Housewives A and B agree that this method seems like a lot of trouble. Their conversation establishes that the two housewives are more concerned with convenience than doing things properly, in contrast to Mrs. Yamanaka. Next, a Neighborhood Association Member (*chōkai no hito*) enters holding a bucket. Passing the housewives a flier, she explains that the bucket is a special container for the collection of kitchen waste, because soon the city will start collecting kitchen waste and regular waste separately.

Neighborhood association member: ...Soon garbage will be separated into kitchen garbage [*daidokoro no gomi*] and regular garbage [*futsū no gomi*], so we're asking everyone to please buy these kitchen waste containers. (Kaneko 1933a, 16)

She goes on to explain that if the housewives buy this bucket from the neighborhood association for 25 sen, someone from the ward office will come to collect the kitchen waste every day. Demurring, the two housewives leave, and Mrs. Yamanaka emerges. Taking a flier from the neighborhood association member, she promptly places an order for one of the new kitchen waste buckets. She then turns to Miss Oharu, giving her a list of instructions for properly sorting the garbage, "because if you recklessly throw things out, it makes trouble for the garbage man, and also makes it hard to burn later." Miss Oharu explains about the neighbors' method of throwing garbage down the slope; Mrs. Yamanaka gently admonishes her, explaining that throwing garbage down the ditch creates problems for people in other areas. Even if the new waste bucket costs money, she points out, in fact the new method will save money for everyone in the long run. The scene ends with Mrs. Yamanaka condescendingly telling Miss Oharu that she'll understand one day when she's married and has a household of her own. In this scene, the audience, who were generally middle-class housewives like many of the League members themselves, are invited to identify with the enlightened Mrs. Yamanaka, and to imagine themselves helpfully educating the less informed, like Miss Oharu and the other housewives.

The next act is the titular "Miss Oharu's Dream." The scene begins in darkness, with whispering voices: "It hurts," "I'm cold." The setting is the inside of a garbage can. As the lights come on, the characters, all different types of garbage, begin talking. They are commiserating with one another about their poor treatment by humans. There are two major themes running through their complaints. The first is

wastefulness (*mudadzukai*), which is explicitly derided as “a loss to the state” (*kokka no sonshitsu*). Characters representing kitchen waste lament being thrown away without having been used to their fullest potential, and other types of trash complain about not being reused:

Fishbone: Anyway, those humans, they are incredibly stupid.

Cabbage Leaf: They really are. I shouldn't even be here yet. I could have been used in soup, or pickled. I am still completely edible...

Fishbone: Me too. There are a lot of nutritious ingredients inside me. Blithely throwing me out without absorbing them really is a regrettable loss to the state. (Kaneko 1933a, 18)

In this play, perhaps reflecting the increasingly nationalist political discourse of the 1930s, limiting waste and preserving resources were framed as actions to be taken in order to support the state. The fact that “Mis Oharu’s Dream” was performed with the backing and financial support of the Tokyo city government may also have influenced the way Kaneko chose to frame the garbage problem in her script.

The second theme of the play is the importance of safe and efficient waste management. A rock which has ended up in the trash explains the importance of respecting the feelings of the garbage collector and helping to make his work more effective through proper separation. In this small way, the play suggests, even housewives can play an important role in keeping the city clean:

Rock: I am Rock. This is my friend, Dirt. Please listen, everyone. This is not a place for us. When we came here with you, there were probably some of you who didn't want us close to you. We are also heavier for the garbage man. But the worst is when the furnace operator says, thanks to you all my work never becomes more efficient; hearing this from such a nice furnace operator makes me want to crawl in a hole. But everyone, I didn't come here because I wanted to.

Dirt: That's right. It was humans who put us here. (Kaneko 1933a, 19)

When Miss Oharu awakens, she has finally realized the importance of dealing with the garbage properly. She tells Mrs. Yamanaka about her dream, and pledges to explain the importance of proper waste management to the neighbor housewives:

Miss Oharu: From now on I'll manage the garbage perfectly, and tell the ladies of the neighborhood that if you don't, the garbage will laugh at you. (Kaneko 1933a, 19)

“Miss Oharu’s Dream” is highly instructive regarding the concerns of city officials and middle-class housewives about household waste management in 1930s Tokyo. However, the play neglects to mention the cause of the 1933 garbage problem and the impetus for the League’s garbage campaign: the Fukagawa smoke crisis.

“Miss Oharu’s Dream” and its accompanying lecture were performed six times in the summer of 1933, and by all accounts were a great success. The events were well attended, with over one thousand spectators at the first showing; the chief of the Tokyo Sanitation Department came to see the sixth (Mizoiri 2010, 155). One woman who attended the first event wrote an article describing her experience which was published in the August 1933 edition of *Fusen*. She praised the show for both its educational and entertaining qualities, noting that its lessons would be readily understood by everyone:

...The town’s theater critic declares this play, a product of everyone’s combined efforts, to be a great success. The reason is its new and uncommon subject: the people of this town were saying that garbage, of all things, would certainly fail as a theatrical subject; garbage itself is so commonplace in daily life, and such a trivial topic is surprising. Everyone was thinking “Oh dear!” This impression was regarded as novel. People are of course surprised by big topics, but on the other hand they can also be surprised by small things which they wouldn’t otherwise notice. [Now,] every time they take the garbage to the trash can, the concrete lessons of this play will be recalled splendidly to even the simplest of minds. (Ikuta 1933)

Following the success of “Miss Oharu’s Dream,” the League, together with the city sanitation department, continued their efforts to combat Tokyo’s garbage problem. The group distributed 20,000 educational fliers, and a member of the League served as a judge for the city’s “cleaning slogan contest” (*seisō hyōgo boshū*) (*Fusen* 7-7 1933a, 14). In October 1933, at the request and with the financial support of the Tokyo city authorities, the League created an educational film about garbage entitled *Many a Little* (*Chiri mo tsumoreba*).¹⁶ The film was produced in order to raise awareness in preparation for the upcoming “expansion of separated collection of kitchen waste and other waste to the entire city” (Mizoiri 2010, 155). Ichikawa Fusae, Kaneko Shigeri, and other members of the League appeared in the movie, and Kaneko assisted in the production (Kaneko 1933b).

In 1934, Kaneko took this movie, as well as “Miss Oharu’s Dream,” on the road in a “cleaning pilgrimage” (*seisō angya*). She visited eight cities (Ashiya, Nada, Kobe, Kyōto, Kure, Hiroshima, Osaka,

¹⁶ Tamanoi (2009, 825) explains this title as follows: “This movie title is taken from a popular Japanese adage, *Chiri mo tsumoreba yama to naru*, which can also be translated as ‘many a little makes a mickle.’ In this context, ‘a little’ refers to ‘a little heap of trash.’”

and Kanazawa), where she showed the movie *Many a Little*, gave a lecture about proper waste practices, and ended the presentation with a production of “Miss Oharu’s Dream” (Kaneko 1934). These events were also highly successful: “In all of these cities, each performance attracted more than a thousand people, most of whom were women and children” (Tamanoi 2009, 825).

The League’s efforts to raise awareness about garbage certainly gained attention; as an anonymous editor wrote in *Fusen* in July 1933, soon after the movement began, “The League’s activities regarding garbage have at last succeeded magnificently in arousing the concern of the city” (*Fusen* 7-7 1933b, 44). The city authorities evidently concurred. *A Hundred Year History of Waste Management in Tokyo* (Tōkyōto seisō jigyō hyakunenshi), an expansive history compiled by the Tokyo Sanitation Bureau and published in 2000, states conclusively that through the cooperative garbage campaign activities of the city and the League, “a clear change could be seen in citizens’ awareness of the garbage problem” (Tokyo Sanitation Bureau 2000, 87). Interestingly, the *History* also concludes that “Through these measures, the [Fukagawa smoke problem] conflict headed toward resolution,” but provides no further information about the residents of Fukagawa (Tokyo Sanitation Bureau, 87).

“Our Mission as Women:” The Garbage Campaign as a Step Toward Civil Rights

In May 1933, the garbage problem became a major crisis for the city of Tokyo. Petitions, protests, and demonstrations by Fukagawa residents against the waste facilities were frequently, and rather sympathetically, covered by newspapers. Fukagawa was a relatively socioeconomically disadvantaged area of the city, which had in fact long been associated with garbage – along the waterfront, the land of Fukagawa itself was “made of trash and dirt,” composed of landfill deposited over centuries (Tamanoi 2009, 806). The demands of the Fukagawa residents – to shut down the incinerators or move them somewhere else – pitted them against the city authorities who managed the waste facilities, and more indirectly against the residents of other areas of Tokyo who, by having their waste taken away and dealt with somewhere else, benefitted from the Fukagawa residents’ suffering.

Ichikawa, Kaneko, and the other members of the League for Women’s Suffrage were well aware of this conflict, and took steps to become more informed when they visited the waste facility. Of course, during the tour of the facility they heard only the side of the government officials and sanitation workers, and there is no evidence to suggest that any of the members sought out the leaders of the Fukagawa protest movement to hear their view before devising the garbage campaign. Why did the League choose to side with city authorities, rather than the indignant protesters?

This decision can be seen as a part of a “strategy of civic engagement as the basis for improving the lot of women” which Ichikawa and other feminists pursued after the failure of two limited women’s

suffrage bills and the rightward turn in national politics following the 1931 Manchurian Incident (Molony 2011, 15). Several articles written by Ichikawa, Kaneko, and others in *Fusen* about the garbage campaign connect the campaign with the League's ultimate goal of attaining civil rights for women.

For some of the women in the League, particularly Kaneko Shigeri, who spearheaded the garbage campaign activities, the garbage problem was indeed a pressing concern, and she and other members were clearly passionate about finding a solution. But when writing in *Fusen* about the garbage problem, and her efforts to combat it, Kaneko often linked these activities with attaining women's rights. In the following passage, part of an article in *Fusen* detailing her involvement in making the movie *Many a Little*, Kaneko describes her motivation to help the city and connects it to the organization's goal of improving women's status in public life:

“I'm so glad the movie about garbage came out.” We, the members of the Women's League to Purify City Politics, feel this from the bottom of our hearts. Moreover, not limiting ourselves to garbage, we wish to do anything we can to help the city. As for whether we will be given something soon, well, let's leave that to the gods. In any case, this [movie] was excellent subject material for the resolution of this year's Women's Suffrage Convention, “Even while lacking civil rights, let the power of women be reflected in city governance.” (Kaneko 1933b, 21)

In the closing paragraph of an article describing her “cleaning pilgrimage,” Kaneko writes: “I will contentedly tie my fate to garbage. It is by this [garbage] that Japan moves, that women move. Though we don't have the vote, let's put the power of women into local government...” (Kaneko 1934, 30). Here, Kaneko acknowledges that she has been the leader of the League's garbage campaign and that she has embraced it as a worthy goal, and in the next sentence reminds readers that these activities are a step toward the larger goal of civic engagement and civil rights.

For members of the League who were less actively involved in the garbage movement than Kaneko, the group's cooperation with the city on the issue was primarily and explicitly a tool in their struggle for the vote. In the July 1933 issue of *Fusen*, the same issue in which the garbage campaign was announced and “Miss Oharu's Dream” was published, Ichikawa wrote an article laying out why cooperation with the city government on the garbage campaign and perhaps other issues was an important step toward achieving the vote. The article is a fascinating insight into Ichikawa's thinking, and is worth quoting at length:

It goes without saying that, as long as we are not given civil rights [*kōminken*], in the eyes of the law we are not citizens [*shimin*]. We therefore bear no responsibility or obligation with regard to the regular workings of municipal government, or indeed the current garbage crisis.

However, by progressively taking on more responsibility, we will demonstrate the importance of the cooperation of women both in municipal governance and in general society, and additionally raise awareness among the female population of the connection between municipal governance and home life.

[...] This is not merely a matter of cleaning garbage and filth. A thorough cleaning of the entire municipal government is necessary. And the work of this great cleaning must be our mission as women. But when considering this, we must feel keenly the necessity of the most effective tool for this great cleaning – civil rights. (Ichikawa 1933, 4-5)

From this article, as well as other writings by Ichikawa and other authors that appeared in *Fusen* during the garbage campaign and afterward, it is clear that the League's cooperation with the city on the garbage campaign was a conscious political strategy. An anonymous editorial published in *Fusen* in September 1933 echoed Ichikawa's sentiments in its praise for the success of the garbage campaign:

This type of gradual progression of the cooperation between the city and women's groups helps to hasten the day when women will lawfully take part in local government, and I am delighted by how influential it has been. I will never stop hoping that these kinds of activities will occur, to a greater or lesser extent, in local governments all across the country. (*Fusen* 7-9 1933, 24)

Looking at the sequence of events – the Fukagawa smoke problem became a major issue, League members went on a study tour of the Fukagawa waste facilities, the League decided to hold a lecture series and asked for the support of the city government – it seems likely that League members including Kaneko and Ichikawa saw in the garbage problem an opportunity to promote their objectives and took the initiative to make their group a key player in the city's response to the crisis. The garbage crisis was perfectly suited to the League's goals – a municipal governance problem related intimately to daily life and women's traditional tasks. And given the strategy the League embraced of working with the government to gain more visibility and responsibility, it is not surprising that their movement did not align itself with the beleaguered residents of Fukagawa. Taking the side of Fukagawa citizens demanding that the incineration plants be shut down or moved elsewhere would have put them at odds with the city government, and Ichikawa's writings make it clear that she thought working with the government would be a more effective strategy for advancing women's rights. In "Miss Oharu's Dream," the talking garbage

characters exhibit concern primarily for the state and the waste facility employees; the residents of Fukagawa, the actual victims of the garbage crisis, are mentioned nowhere at all.

When the garbage campaign began, the League noted in *Fusen* that this kind of cooperation between the city and women's groups was the first of its kind. In her July 1933 article about women's cooperation with local government, Ichikawa wrote: "However in Tokyo the city authorities received the proposal from the women's side with joy, and this cooperative state, unprecedented in the relations between city government and women, itself can already be considered a victory" (Ichikawa 1933, 5). And in August 1933, a report in *Fusen* on the status of the garbage campaign noted: "In cooperation with the city of Tokyo, we have worked strenuously on the garbage problem. This is the first instance of such cooperative work between the city and women's groups" (*Fusen* 7-8 1933, 13).

Such cooperation may have been a first for this particular women's group, but in fact, as Garon (1997) has demonstrated, cooperation between local government and women's groups became something of an established pattern in the 1920s and 30s: "During the 1920s and early 1930s, prefectural officials cooperated with local women and federation leaders to knit the local associations into prefectural confederations of women's associations. In the process, officials strengthened the federation's mass base and tacitly recognized the legitimacy of the suffrage movement. In exchange, activist women routinely lent their organizational support to the state's campaigns for daily life improvement, moral education, and 'diligence and thrift.' To many women's leaders, the road to power and influence lay in assuming public roles, often in alliance with the state" (Garon 1997, 133-134).

Although Garon does not discuss the Tokyo garbage campaign, his characterization of cooperation between the state and women's groups applies fairly well. For Ichikawa and other League members, the opportunity to publicly cooperate with city authorities was indeed "the road to power and influence." However, the garbage campaign was not a case of the League "[en]ding] their organizational support to the state's campaigns;" rather, the garbage campaign was in the first place devised entirely by the League, which then asked the city for financial support. Garon's concept of "social management," implying as the term does the state's primacy in interactions with social groups, overlooks the autonomy and initiative the League took in identifying a political opportunity and leveraging it to their advantage. The official *Hundred Year History of Waste Management in Tokyo* also erases the League's role as the architects of the garbage campaign:

Along with expanding the area for separated collection, the city, together with Ichikawa Fusae's "Tokyo Women's League to Purify City Politics" and others, organized a movement to reduce waste and encourage proper sorting, and devised a fundamental solution to the problem. (Tokyo Sanitation Bureau 2000, 86)

Perhaps unsurprisingly, in the city's version of events, the city becomes the central player, while the Women's League "and others" are reduced to supporting roles.

Although the women of the League were primarily responsible for the creation and success of the garbage campaign, the city was happy to cooperate – as Ichikawa noted, in the quoted passage above, city officials were overjoyed to receive such a proposal. At the time of the Fukagawa smoke crisis, the city's waste management system was already overburdened. In the late 1920s and early 1930s, the city planned and constructed several new incinerators and other waste facilities, but still could not keep up with Tokyo's burgeoning volume of garbage. In fact, originally three additional incinerators were to be built at Fukagawa, but one was scrapped because the rights to the land could not be procured (Tokyo Sanitation Bureau 2000, 73). By 1937, the city was operating nine incineration facilities in addition to the three at Fukagawa, but the processing capacity of all twelve facilities was still only one-third of Tokyo's total waste output (Tokyo Sanitation Bureau 2000, 86).

Given this situation, the city was undoubtedly grateful for any help it could get. The League's proposal to hold a lecture series educating citizens on proper waste management must have been a relief to the beleaguered sanitation department: the campaign, and "Miss Oharu's Dream," framed the waste problem as an issue of citizens' (mainly women's) ignorance of and lack of concern for properly managing household waste, rather than as a failure of municipal waste management systems. It is therefore unsurprising that the city approved funding and support for the League's garbage campaign activities within a week of hearing the proposal. Both the city government and the League received tangible benefits from their cooperative arrangement.

The Legacy of the Garbage Campaign

Cooperation between the city and the League for Women's Suffrage in garbage-related activities continued well into the 1930s. The League and the Tokyo city sanitation department also developed a close relationship; according to Tamanoi, during the garbage campaign "Members of the League often visited the office of the Tokyo sanitation department (in uptown Tokyo) with flowers" (Tamanoi 2009, 827). Following her successful "cleaning pilgrimage" in 1934, Kaneko was appointed to an unsalaried commissioned position in the sanitation department in 1935. The appointment notice read "commissioned for the work of popularizing the ideology of cleanliness" (Mizoiri 2010, 156). Although this position was unpaid, it was significant as a visible indication of the city's acceptance of women as public persons with a role to play in municipal governance (even if an unrecompensed role in a limited sphere).

League members continued undertaking activities related to public sanitation and garbage reduction even as the country descended into war. In 1938, the Japan Federation of Women's Groups (Nihon Fujin Dantai Renmei) held the Unused Item Exchange Sale (Fuyōhin Kōkan Sokubaikai) in Tokyo. The League for Women's Suffrage participated in the event as a member of the Federation; Ichikawa served as manager of the head office, and Kaneko as assistant director of the administrative department. The *Asahi Shinbun*, under the headline "The wave of the waste regeneration age," reported that the first day of the three day event attracted about 5000 people (Mizoiri 2010, 156). The Tokyo garbage campaign as a distinct effort to improve the city's sanitation fizzled out during the war years, as nationwide the call for thrift, reuse, and salvaging only increased, while incineration briefly fell out of favor as the preferred waste management method. Cooperation between women's groups and the government continued through the war, and expanded into areas beyond garbage. In 1942, Kaneko took on a prominent position in the Greater Japan Women's Association, while Ichikawa was on the board of directors of the Greater Japan Patriotic Press Association (a role for which she was later purged by the occupying Allied powers). The role of women in Japan's wartime waste movements will be discussed in greater detail in the next chapter.

The Fukagawa smoke problem arose as a consequence of waste management policy promoting incineration as the best means of waste control. In the United States and elsewhere, when incineration facilities had similar problems, they were generally abandoned in favor of other means of waste management. But in Japan, the problem was framed not as being caused by the incinerators, but primarily by the garbage itself, and by extension the people throwing it out. The solution, therefore, was to fix the garbage so that the incinerators could work as intended, by diverting kitchen waste with its high water content toward other disposal methods and making sure that inappropriate materials were not put out with the remaining waste to be incinerated. Pre-treatment separation was already being carried out by waste workers in Tokyo, but was insufficient to prevent the Fukagawa smoke problem, so the city turned to source separation – which had already been endorsed as policy in the 1930 revisions of the Waste Cleansing Law – as a major part of the solution.

Source separation of necessity requires the active participation, or unpaid labor, of the majority of residents to be effective. The 1933 women's garbage campaign played a significant role in popularizing the idea that garbage separation is rightfully the civic and moral duty of citizens, especially housewives, in Tokyo and several other cities. Emphasis on waste work as the duty of citizens continued during the war years, though the focus shifted from separation for efficient incineration to reuse and recycling materials for the war effort. The "enlightened housewives" doing their part to relieve the city's garbage crisis idealized by "Miss Oharu's Dream" and the garbage campaign were replaced, during the war, with the ideal of "women of the home front" reducing and reusing waste in service to the nation. The next

chapter will discuss how these women, like the League members discussed in this chapter, exercised their autonomy while participating in wartime waste campaigns.

Chapter 2

“Uncovering the Waste of Society:”

Women and the Japanese State in Wartime Waste Campaigns, 1937-1945

“...[A]lthough most women commonly remain inside the home, for the eyes of these women to go out in the streets and uncover the waste of society is extremely enlightening for women, and is also quite a splendid thing for society now...”

Josei Tenbō, August 1938

The relationship between women and the modern Japanese state, particularly during the period of the Asia-Pacific War (1937-1945), has been a subject of deep interest for historians of Japan in recent years. Muta (1994) observes that during the state-led “modernization” of the Meiji period (1868-1912), a new ideology of the home (*katei*) began to emerge which placed women at the center of family life: “At this point, the woman became the center of the household, the *shufu* or housewife, who devoted herself to raising her children and serving her husband and his parents” (Muta 1994, 54). This “feminization and privatization of the home” made it “the women’s place, excluded from the public sphere, though linked intimately to the national interest” (Muta 1994, 54). Koyama (1999, 2014) argues that the connection between women and the state, which had previously been only through their husbands and children, became a direct relationship after the First World War once the state realized the importance of the household to national policies: “Through their domestic responsibilities women came to build a connection with the nation and its politics, and when the importance of the family in terms of executing national policies was realized there were more opportunities for women to contribute to public debate” (Koyama 2014, 97). This creation of a direct relationship between women and the state through women’s domestic duties signified the incorporation of women in to the nation-state (*josei no kokuminka*).

In this chapter, I will follow Germer et al. 2014 in “distinguish[ing] between the nation as an entity with which its citizens have an emotional or cultural identification,” “the state as a series of institutions of governance,” and “the hyphenated ‘nation-state,’ which combines both of these dimensions” (Germer et al. 2014, 2). For the most part, this chapter deals with the Japanese “state” in terms of its policies, but Koyama’s conception of *josei no kokuminka* concerns women’s connection to

both the “state” and the “nation,” and in her English publications she translates this phrase as “the incorporation of women into the nation-state” (Koyama 1999; Koyama 2014). I will therefore use the term “nation-state” when referring to themes related to *josei no kokuminka*. As for English terminology related to the word *kokumin*, Koyama (2014, 98) notes, “Depending on the political system at different times in Japanese history, *kokumin* could either be rendered as ‘national subject’ or ‘citizen;’” in this chapter I will primarily use the phrase “national subject” for *kokumin*. *Josei no kokuminka* refers to the process of women becoming *kokumin*, and can alternately be translated as “the incorporation of women into the nation-state” (Koyama 2014), “the nationalization of women” (Ueno 2004), or “the conversion of women into national subjects” (Narita 1998). Here I will primarily use the phrase “the incorporation of women into the nation-state” to refer to this concept.

The incorporation of women into the nation-state is closely connected to the wartime mobilization of women on the home front. Narita (1998) contends that it was women’s mobilization in the 1930s (from the 1931 Manchurian Incident that began the hostilities that eventually erupted into full-scale war in 1937) that enabled women’s full integration into the nation-state: “Total war brought the ‘conversion of women into national subjects’” (Narita 1998, 142). Similarly, Frühstück (2014) argues that it was “after the Sino-Japanese conflict turned into a full-blown war on 7 July 1937” and the express mobilization of women on the “home front”¹⁷ that women became national subjects: “The notion of female virtues being manifested in ‘good wives and wise mothers’ was transformed, and by the mid-1930s every woman was a national subject (*hitori no kokumin*) who was supposed to join the war effort ‘for the nation’ (*okuni no tame*) by fulfilling home duties while men fought outside the country at the front line” (Frühstück 2014, 168).

However, while war may indeed have been the catalyst for the integration of women into the nation-state, it was not the “total war” that emerged during the later years of the Asia-Pacific War that initiated the change, but rather the Japanese government’s observation of the home front activities of the Western nations involved in the First World War. Koyama describes the efforts of both the Education Ministry and the War Ministry to investigate and report on the home front activities of women in European countries; from these observations, Koyama argues, “the government realized the necessity of developing the latent power of women away from the home, in activities other than housework and child rearing” (Koyama 1994, 38-39). This shift, which necessitated changes to the “good wife, wise mother” ideal, sparked increasing interest in the household as a source of national strength (Koyama 2014). The social policies aimed at strengthening household finances and improving daily life of various government

¹⁷ Although this chapter is focused on women’s role on the Japanese “home front,” it is important to remember that women were also mobilized, in gendered ways, on the battle front. Frühstück discusses women’s roles on the battle front as army nurses and as sex slaves euphemistically termed “comfort women” (*ianfu*), and at the end of the war as soldiers on the front line in the Battle of Okinawa (Frühstück 2014, 170-176).

ministries beginning in the late 1910s were successful in mobilizing women to achieve these state aims, and were a direct precursor to the wartime mobilization of women on a larger scale.

The topic of women's relationship with the state specifically during the war years has received significant attention. In particular, Japanese feminist scholars have addressed the question of the war responsibility of both the leaders of the women's movement (Suzuki 1986) and of ordinary women mobilized for the war effort (Kanō [1987] 1995). In examining women's participation in the war, both Suzuki and Kanō "emphasize the collaborative aspects of such participation" (Narita 1998).

This chapter will also discuss the question of women's agency in cooperation with the Japanese state during the war, in order to highlight the complex nature of the relationship between women and the Japanese state both during and before the war. The term "mobilization" (*dōin*) strongly implies a vertical relationship between the mobilizer (usually a governmental authority) and the mobilized. This is certainly the case in most instances of wartime mobilization, in which both natural and human resources are managed and directed by the state toward the goal of military victory (Yamanouchi 1998, 3). However, a narrow focus on state objectives and strategies can elide the contributions and initiatives of the citizens being mobilized.

The state was of course the primary force behind women's wartime mobilization activities. But above and beyond enthusiastically participating in such activities, there were also cases where women devised and implemented their own efforts to support the war. This chapter will use waste-related wartime activities as a lens through which to examine women's shifting relationship with and role within the Japanese state, with a particular focus on the agency and initiative of women's groups. Waste is an ideal arena to examine this relationship between women and the state because of its inherent connections between the private – the home and especially the kitchen – and the public – it must be removed from the home and dealt with more or less communally. During the war years, waste became a topic of especial interest to the state because of its potential effects on the wartime economy: reducing household waste could stretch scarce resources a little further, and collecting certain types of household waste could potentially provide materials necessary for the war effort. The location of these materials, this waste, in the home necessitated the cooperation of women and, while women had already been "mobilized" to a certain extent even before the Asia-Pacific War, during wartime waste became an increasingly important target for women's mobilization. As the examples presented in this chapter show, this mobilization was largely directed by the state from above, but there were also occasions in which women organized their own "mobilization" efforts, with their own goals and targets, in support of the nation and the war.

This chapter will first explore the continuity between the mobilization of women in pre-war social campaigns and wartime mobilization of women, followed by a discussion of wartime women's organizations. It will describe the waste-related mobilization activities that occurred during the wartime

period and the various groups that contributed to them, and go on to touch on the subject of women as active agents in wartime mobilization activities. It will then examine the 1938 “Finding Waste in the Streets” campaign, analyzing this event’s significance in demonstrating women’s proactive efforts to define their own position within the nation-state.

Mobilization of Women in Peace and War in the Early Twentieth Century

The modern Japanese state’s efforts to shape its own development, promulgate specific ideologies, and manage the lives of its populace have been the subject of numerous scholarly works (see, e.g., Gluck 1985, Koyama 1991, Garon 1997). In particular, the period following World War I saw a dramatic increase in social policies aimed at improving the lives of ordinary citizens. Koyama Shizuko attributes this shift to a newfound recognition on the part of the state of the importance of the household (*katei*) to the success of domestic policies (Koyama 1999). Beginning in the late 1910s, the social policies of government ministries began specifically targeting women as the central figures of the household.

[During the early 1920s], the Ministry of Education embarked upon the first of several “daily life improvement campaigns” (*seikatsu kaizen undō*), which proved more appealing to the middle classes. The improvement campaigns similarly urged the populace to be thrifty, yet they also introduced methods of bettering the quality of life by means of scientific budgeting, better nutrition and hygiene, and avoiding wasteful spending on festivals, alcohol, and tobacco. (Garon 1997, 11)

These campaigns established a direct relationship between women and the state through women’s domestic duties, newly recognized to be of national importance. The areas in which women were encouraged to interact with the state were those associated with the domestic sphere: housework, cleanliness, and hygiene; child-rearing and childhood education; home economics (thrift and frugality); nutrition, etc. This new discourse invited women to see their role as mothers and housewives as contributing directly to the strength of the nation, and created space for women to enter the public sphere, if in narrow and prescribed ways. As a result, women’s participation in public spaces and public discourse increased throughout the 1920s and 1930s. Koyama describes this development as the initial establishment of a direct (rather than indirect, through husbands and children) relationship between women and the state, and as an extremely significant development in the process of the incorporation of women into the nation state (*josei no kokuminka*) (Koyama 1999).

Prewar social campaigns, which engaged the populace in activities directed toward achieving specific state goals, have been likened to wartime mobilization. As Sheldon Garon has observed, “the modern Japanese state has managed its society in peacetime much as Western democracies have done only while at war” (Garon 1997, 13). Koyama describes the state’s goal in these prewar campaigns as the mobilization of women:

Eventually, on the grounds that women were the ones responsible for consumer economics and household education, called for the cooperation of households with state policies, and in the Campaign to Encourage Diligence and Thrift, the Public and Private Economic Austerity Campaign, and the Moral Suasion Mobilization Campaign, the state aimed for the mobilization of women [*josei no dōin*]. (Koyama 1999, 264)

In fact, the initial mobilization of Japanese women on the home front in the Asia-Pacific War was largely indistinguishable from prewar mobilization in social campaigns; women’s mobilization, until the last years of the war, was centered on their domestic duties. The difference between prewar and wartime mobilization of women was one of degree, not of kind.

During the Asia-Pacific War, Japan did not mobilize its female population in the labor force to the same extent as other combatant nations (Mathias 1999, Miyake 1991). Mobilization of women in Japan was circumscribed out of an express desire on the part of government leaders to preserve the family system:

In Japan, however, we observe a great reluctance to employ women, except at the lowest level of the economy. In a February 1942 speech to the Diet, the Japanese Minister of Health and Welfare, Koizumi Chikahiko, proudly stated that in order to secure its labour force, the enemy was drafting women, but in Japan, out of consideration for the family system, the Japanese would not draft them (cited in Havens 1975: 919-920). Throughout the war, Japanese women were never forcefully drafted into the labour force, unlike the case in the United States and Great Britain. Nevertheless, as the war dragged on, the rapidly growing demand for female labour forced the Japanese government to make various attempts to tap the under-utilized reservoir of female labour. These attempts, which emphasized voluntary action and relied on the patriotic spirit of the women, were, on the whole, not very successful. (Mathias 1999, 65)

Wartime mobilization of women in Japan was implemented, similarly to the mobilization of women in the state campaigns of the 1920s and 1930s, with the mindset that women’s social role was

primarily as the center of the home and family, and activities outside the home, even when undertaken in support of state goals, should not interfere with women's domestic duties. Mackie (2003) notes that women's wartime efforts often emphasized the connection between such activities and the home, even when women had to leave the home to perform them:

The activities of the National Women's Defence Association thus preserved gendered divisions of labour whereby men were responsible for fighting for the women and children at home, while women supported those activities. Activities such as thrift campaigns or the collection of scrap and waste materials reinforced this connection. The association also, however, brought women out of the kitchen to perform their support activities in the streets where they collected donations, and at the ports and railway stations where they assembled to farewell departing soldiers. The very juxtaposition of the two phrases 'National Defence' (*Kokubō*) and 'Women' (*Fujin*) suggested that these activities had national significance, and the association was formed under the slogan 'National defence starts in the kitchen' (*Kokubō wa Daidokoro kara*). (Mackie 2003, 104)

Kanō further explains that under wartime mobilization, women's activities outside the home were in fact still seen as "domestic" and in accordance with the family system because in total war, the country itself – the "home front" – became the home: "Men to the front line overseas and women to the home front... In a situation of total war that was also a war of aggression, norms concerning the existing gendered division of labour that made a distinction between the 'inside' (the home) and the 'outside' were, at a stroke, expanded to the whole of the state" (Kanō [1987] 1995, 67, quoted in translation in Ueno 2004, 44).

Ueno (2004) sees the state's reliance on the maintenance of the family system even in war as a strategy of "gender segregation," or "the nationalisation of the private sphere while maintaining the gender role assignment" (Ueno 2004, 43). In this system, which maintained the Japanese state's family ideology, "what the state expected of women on the home front was that they would play the roles of 'reproductive soldiers' and of 'warriors in the economic war'. [...] We can add to this the role of consumer, or put another way 'lifestyle reform' (the name for frugality and contribution)" (Ueno 2004, 44). However, as the war progressed and women's labor became urgently required outside of the home, this "gender strategy" began to break down. According to Miyake (1991), although the Japanese state realized the necessity of drafting women into the labor force towards the end of the war, it was unwilling to completely abandon its dedication of the family system:

It was not until August 1944, when a scarcity of raw materials and a series of air raids had already interrupted production, that the wartime cabinet decided to implement compulsory conscription of women for the munitions industry. Even then, the conscription ordinance applied only to widows and unmarried women between the ages of twelve and forty and specifically excluded those women “pivotal [*konjiku*] to a family” – that is, women in their procreative years whose roles as housewives and mothers were indispensable for family cohesion. (Miyake 1991, 267)

Ueno attributes the difficulty faced by the Japanese state in its attempts, late in the war, at mobilizing women for the labor force to its choice of the “gender segregation” strategy: “It was fine while the role of the ‘warriors in the economic war’ was limited to consumer activities within the household, but once women’s labour was demanded in the domain of production (due to a shortage of male labour) a conflict between this and motherhood emerged. Women’s policy under the total mobilization system showed plainly the difficulties of this gender strategy” (Ueno 2004, 49).

Similarly, Sandra Wilson points out the “basic contradictions” of the state’s wartime rhetoric on women’s duties: “there was a straightforward clash between, on the one hand, the strong focus of the state-sponsored women’s associations on home and motherhood, and, on the other, the same state’s need for women to be active outside the home. [...] By the end of the war, the notion that family and state necessarily supported each other was bankrupt” (Wilson 2006, 210-211). In this sense, wartime mobilization of women challenged prevailing conceptions of the proper relationship between women and the state. One arena in which this contradiction was evident was in the mass-mobilization women’s patriotic associations, which proclaimed the primary importance of women’s place in the home and the family but undertook a variety of duties (on behalf of the state) in the public sphere.

Women’s Organizations in Wartime

At the beginning of the Second Sino-Japanese War in 1937, there were two major women’s patriotic associations: the Patriotic Women’s Association (Aikoku Fujinkai) and the Greater Japan National Defense Women’s Association (Dai Nihon Kokubō Fujinkai). The Patriotic Women’s Association was founded in 1901 during the Russo-Japanese War as a charitable organization for assisting the families of dead or wounded soldiers; its membership, which expanded rapidly from 13,049 in 1902 to 806,887 in 1911, was largely composed of upper-class and upper-middle-class women. This group’s main activity was raising money to help needy families of soldiers. The group was initially supported by both the Home Ministry and the army (Hayakawa 1995). The National Defense Women’s Association was founded by a small group of housewives in Osaka in 1932 as the Osaka Kokubō Fujinkai (Osaka

National Defense Women's Association). Within a few months it had expanded to the national level with the strong support of the army. This group, which competed with the Patriotic Women's Association for members, emphasized the important role of "ordinary housewives" of the middle and working classes; its symbol was the white apron worn by its members, marking them as women who worked in the home and the kitchen (unlike upper-class women who hired servants) (Tsunematsu 1994). Perhaps because of its appeal to a broader range of women (or its vocal support from army officials), the National Defense Women's Association grew rapidly and swiftly surpassed the older Patriotic Women's Association, which had about 1,500,000 members in 1929, in membership. By 1934, the National Defense Women's Association boasted 1,230,000 members, eleven headquarters and 11,150 local branches across the nation; its membership had doubled to 2,550,000 by 1935, and reached 6,850,000 by the end of 1937 (Tsunematsu 1994, 53).

In the mid-1930s and into the early years of the Second Sino-Japanese War, the rivalry between the Patriotic Women's Association and the National Defense Women's Association was well-known. Wilson (2006) cites an *Osaka Asahi Shinbun* article's description of their disputes: "At ceremonies to receive the remains of dead heroes they quarreled over who should offer incense first; and they clashed at parades to bid farewell to soldiers or to welcome them home. If one group began a campaign to collect blankets for the front, the other would avoid any mention of blankets" (Wilson 2006, 212). Kanō asserts that this struggle was indicative of the tension between the traditionalist Home Ministry, which backed the Patriotic Women's Association, and the reformist Army, which backed the National Defense Women's Association; the ascendance of the National Defense Women's Association thus reflected the changing political power structure in the years preceding the war (Kanō [1987] 1995, 93-94).

Despite the insistence of members of both the Patriotic Women's Association and the National Defense Women's Association that their organization's ideology and mission were unique, in practice their activities often overlapped (Wilson 2006). One major activity frequently engaged in by both groups was creating and sending "comfort bags" (*imonbukuro*) containing gifts and daily necessities to soldiers on the front lines. Another major cause was promoting and contributing to national savings campaigns; while not unique to the wartime period, the rhetoric used to promote these campaigns during the war became more nationalistic and militaristic compared with savings campaigns in the 1920s and early 1930s (Garon 2000). In order to support the war effort, both women's organizations "raised money for soldiers and to buy weapons, visited shrines to pray for soldiers, visited soldiers' graves, and visited and helped to find wives for wounded soldiers. [...] Other activities directed at the civilian population included distributing information about how to deal with air raids and poison gas, running campaigns for the recycling of household items, constructing registers of potential blood donors, and training women drivers for the home front in anticipation of a shortage of men" (Wilson 2006, 213). Although most of these

activities took place outside the home, they generally conformed to prevailing notions of women's duties and were seen as acceptable roles for women to perform.

Another women's organization that played a significant role in wartime mobilization efforts was the Japan Federation of Women's Organizations (Nihon Fujin Dantai Renmei), which was formed in 1937 following the outbreak of war with China. It was composed of eight autonomous women's organizations: the League for Women's Suffrage (Fusen Kakutoku Dōmei), the Young Women's Christian Association, the Japan Amity Association (Zenkoku Tomo no Kai), the Japanese Women's Christian Temperance Union (Nihon Kirisutokyō Fujin Kyōfūkai), the Association of Women Doctors (Nihon Joikai), the Women's Consumers' Association (Nihon Shōhi Kumiai Fujin Kyōkai), the Women's Alliance (Fujin Dōshikai), and the Women's Union for Peace (Fujin Heiwa Kyōkai). Gauntlett Tsuneko, the outspoken leader of the Women's Christian Temperance Union, was elected president of the new federation (Nishikawa 1997, 57).

These eight organizations chose to band together in light of the government's "increased efforts to mobilize society spiritually, materially, and militarily" (Molony 2011, 19). The group's founding declaration explained their purpose in terms of maintaining their existence in the face of national mobilization:

In this autumn of national mobilization, we members of women's organizations, sincerely hoping to lend our cooperation to the cause of protecting those at home, have gathered here to establish an affiliation of those organizations. We are committed to maintaining the long-term existence of our organizations, and at the same time to demonstrating women's true worth, as, in surmounting this crisis, the nation draws on the spiritual resources of its women. (Quoted in translation in Nishikawa 1997, 57)

The leaders of these organizations, as expressed through their writings in *Josei Tenbō* from 1937 and 1938, hoped to maintain their autonomy while proving women's value to the wartime state in the hope of attaining greater rights for women (most or all of these organizations were pro-women's suffrage) (Nishikawa 1997; Molony 2011). In this way the Federation of Women's Organizations' principles and goals differed from those of the state-sponsored women's patriotic associations, although it, like the patriotic associations and all women's groups, was dissolved with the creation of the Greater Japan Women's Association in 1942.

In February 1942, all women's organizations in Japan were forcibly merged into the Greater Japan Women's Association (Dai Nihon Fujinkai), under the joint supervision of the Home Affairs, Army, Navy, Colonization, Welfare, and Education Ministries. Leaders of the former women's

organizations were generally disappointed by this merger, especially as the new organization was essentially run by men: “Its effective leaders, as opposed to those in ceremonial positions, were male” (Wilson 2006, 214). The amalgamation, directed from above, was intended to serve as a symbol of unity as well as a means of directly mobilizing the female population: “As for the actual relationship between Nippu [an abbreviation of Dai Nihon Fujinkai] and the state, there was to be absolutely no ambiguity. An official of the association explained that Nippu was ‘one important instrument (*kikan*) of the state.’ [...] On another occasion, Kawanishi [the male director of Dai Nihon Fujinkai] explained that through Nippu there was a direct line from government policy to the household; it was almost as if there were no distinction between government and household” (Wilson 2006, 224-225).

Kawanishi’s statements make it clear that the formation of Dai Nihon Fujinkai was an attempt by the government to define and structure the role of women within the state. At this point women were officially acknowledged by the state, arguably for the first time, as national subjects with a specific, gendered role to fulfill. Indeed, it is for this reason that liberal feminists like Ichikawa Fusae had been advocating for greater integration of women into the structures of wartime mobilization: by supporting the state, they believed, women would attain greater rights and influence (Molony 2011).

One major area of mobilization that relied heavily on women’s labor both inside and outside the home – and that demonstrated women’s agency in using elements of mobilization to shape their relationship with the state – was waste reduction and scrap collection. The next section will examine these wartime waste campaigns in terms of their impact on the relationship between the state and citizens/national subjects, women in particular.

Wartime Waste Collection Campaigns

During the war, waste collection, which previously had been discussed as an issue of municipal administration, quickly became a matter of patriotic duty. Mizoiri (2010) notes that before the war, newspaper articles about garbage were mainly related to garbage collection, focusing on issues that would be of interest to citizens such as changes in the garbage collection rules, water pollution caused by garbage on collection days, or littering problems. However, once the war began, articles began to focus on waste as a resource, many of them running special features on transforming waste into “resources” (*shigen*) and material conservation campaigns (Mizoiri 2010, 151). According to Mizoiri, reuse movements (*sairiyō undō*) grew in popularity during the war years, and group collection of waste items by organizations like neighborhood associations and women’s associations were characteristic of waste management in wartime (Mizoiri 2010, 148). The principles of resource conservation which motivated these voluntary resource collection campaigns were codified into law with the revision of the Waste

Cleaning Law Regulations (Obutsu sōji hō kisoku) in May 1941 (see Chapter 1). The revision changed the waste disposal requirements from “waste must be incinerated” to “waste must be managed,” and mandated that valuable materials be proactively collected from garbage (Mizoiri 2010, 151).

A variety of groups, both private and governmental, organized waste and scrap collection campaigns during the war. In November 1939, the *Asahi Shinbun* newspaper company, in collaboration with the city of Tokyo, organized a waste collection campaign in Tokyo they called the “Anti-Aircraft Gun Donation Campaign” (Kōshahō ken’nō undō), in which the money raised from selling the donated scrap was donated to the military for the purpose of funding an anti-aircraft gun. The *Tokyo Nichi Nichi Shinbun* also carried out a similar scrap collection campaign in 1939, called the “Gold Donation Campaign” (Kin no ken’nō undō) (Mizoiri 2010, 148). National mass-mobilization organizations, women’s associations, and neighborhood associations were the most prominent groups to be involved in the organization of waste reduction, reuse, and collection campaigns. Each of these groups will be discussed in the following sections.

National Waste Collection Campaigns

The most prominent governmental organization involved in scrap collection campaigns in the early years of the war was the National Spiritual Mobilization Council (Kokumin Seishin Sōdōin Iinkai), an organization formed through the consolidation of dozens of nationalist groups in 1937 under the joint supervision of the Ministry of Home Affairs and the Ministry of Education. After the establishment of the Imperial Rule Assistance Association (IRAA, Taisei Yokusankai) in 1940, this new group took over the organization of most forms of civilian home front mobilization, including scrap collection campaigns. These two organizations were responsible for managing several large-scale waste collection campaigns at both the national and local levels throughout the war years.

One of the earliest efforts in terms of national scrap collection campaigns was the “One House, One Item Donation Campaign” (Ikko ippin ken’nō undō) in July 1938. On July 7 and 8, 1938, donations of worn out or unwanted goods were collected door to door by neighborhood association members, former soldiers, and members of young men’s associations, and brought to the offices of local neighborhood associations across the country. In Tokyo, most of the donations were comprised of items like “scraps of iron goods like buckets, washtubs, water pipes [*toi*] or empty cans;” aluminum goods and scraps were also found in great number. The *Asahi Shinbun* estimated that the value of donations within the city of Tokyo alone during the two-day event totaled about 150,000 yen (*Asahi Shinbun*, July 9, 1938).

The campaign took place on the anniversary of the Marco Polo Bridge Incident (referred to in the *Asahi Shinbun* as the China Incident [*Shina jihen*] and the *Yomiuri Shinbun* as the July Seventh Incident [*Shichigatsu nanoka jihen*], and “the incident” as shorthand in both newspapers), the skirmish between Japanese and Chinese forces that took place on July 7-8, 1937 near the town of Wanping which marked the beginning of the Second Sino-Japanese War. The purpose of the campaign was to collect valuable materials, particularly metal, for the war effort, but also to “effect the training of national subjects toward a consensus of resource protection” (*shigen aigo no sōi o fukumeta kokumin kunren to nasu*) (*Asahi Shinbun*, June 10, 1938). In Tokyo, scrap collected from 1,407,626 households was sold for a total of over 200,000 yen, which was donated to a hospital for wounded soldiers. In a statement given when formally handing over the donation to the wounded soldiers’ hospital, the mayor of Tokyo city and the governor of Tokyo prefecture highlighted the efforts of the citizens’ groups whose efforts had made the campaign a success: “In Tokyo, primarily the neighborhood associations (*chōkai*), as well as former soldiers’ association, young men’s association, the National Defense Women’s Association, the Patriotic Women’s Association, and others mobilized and gathered up [everything] from even a single old nail to a dirty tube” (*Asahi Shinbun*, August 31, 1938). An interim report on the results of the campaign published in September 1938 stated that with 20 prefectures reporting, the total amount raised nationwide had reached 541,753 yen and 41 sen (*Asahi Shinbun*, September 6, 1938).

The government-initiated campaign was coordinated at the national level by the Central League of the National Spiritual Mobilization Movement (Kokumin Seishin Sōdōin Chūō Renmei), and carried out at the local level by members of the various organizations listed above. According to the *Asahi Shinbun*, the success of the campaign could be attributed to each individual and group playing their assigned role – particularly, conforming to prescribed gender roles. In the concluding section of one *Asahi* article published just after the campaign (*Asahi Shinbun*, July 9, 1938), under the sub-heading “The efficacy of men outside, women inside,” the newspaper praised the participants for performing their assigned (gendered) duties, and included a quote from the head of the Tokyo City General Mobilization Department indicating that this interpretation of the reasons for the campaign’s success was endorsed by the authorities:

Because in this one item, one house donation campaign thousands of neighborhood association members, former soldiers, members of youth associations, etc. went around to collect donations, and women, including members of the Patriotic Women’s Association [Aikoku Fujinkai], the Women’s National Defense League [Kokubō Fujinkai], and other women’s associations, went around on the side of searching for and handing out donations in the home [*katei*] as they are accustomed, [this campaign] was able to achieve great results.

“Up until now in this kind of campaign, because people went out into the streets in a disorderly fashion, it was not uncommon that the expected results were on the contrary not achieved, but from now we have the valuable experience that each individual serving at the appropriate post is far more effective.” (Commentary from Tokyo City General Mobilization Department Head) (*Asahi Shinbun*, July 9, 1938)

The inclusion of this commentary about the importance of fulfilling one’s proper role, in particular gender roles, for the success of waste campaigns (and perhaps by extension other forms of wartime mobilization) is striking. Its criticism of past campaigns in which “people went out into the streets in a disorderly fashion,” combined with the sub-heading “The efficacy of men outside, women inside,” seems to imply that it is specifically campaigns in which women go outside that are disorderly and ineffective. This view can also be seen in the *Asahi Shinbun* reporting on the “Finding Waste in the Streets” campaign organized by the Greater Japan Alliance of Women’s Organizations less than two weeks after the national “One House, One Item” campaign, to be discussed in a later section.

Neighborhood Associations and Waste Campaigns

The locus of most waste collection campaigns, whether organized by a national movement or spontaneously by local citizens, was the neighborhood association (*chōkai* or *chōnaikai*). Neighborhood associations were formally incorporated into the structure of wartime mobilization in 1940, when all towns and villages were ordered to form neighborhood associations under the auspices of the Imperial Rule Assistance Association. The official goals of the neighborhood associations under this directive were the “dissemination of national policy and the achievement of a controlled economy” (Hastings 1995, 81).

However, most cities and towns already had informal or semi-formal neighborhood associations, some of which had existed for decades as informal residential associations organized around community activities such as arranging local shrine festivals. In Tokyo, many neighborhood associations had their origins in sanitation unions. In July 1900 (at the same time that the Waste Cleaning Law was promulgated at the national level), Tokyo prefecture passed a law requiring “the establishment of sanitation unions in each city and village to prevent the spread of disease and to disseminate knowledge of sanitation” (Hastings 1995, 77). This regulation required the head of each household to join the sanitation union and established the *chō* (“town” or neighborhood¹⁸) as the fundamental organizational unit. Although most

¹⁸ Hastings explains that the term *chō*, which literally means “town” and for which there is no direct English equivalent, typically refers to “the spaces formed by the intersections of the major thoroughfares” (Hastings 1995, 70). *Chōkai* or *chōnaikai* refers to an association of residents living in a particular *chō*. In the modern period, *chō*

sanitation unions eventually disbanded due to lack of funding, their structure became the basis for Tokyo's neighborhood associations: "A number of ward histories suggest that the neighborhood associations developed from the sanitation unions. By the 1920s, most sanitation unions had become part of a neighborhood association" (Hastings 1995, 77). The Great Kanto Earthquake of 1923, which devastated Tokyo and surrounding areas, hastened the spread of neighborhood associations in the capital as residents banded together for mutual support. By 1936, a year before the start of the Second Sino-Japanese War, 89% of Tokyo households were members of a neighborhood association (Mizoiri 2010, 149).

After the outbreak of the Second Sino-Japanese War in 1937, neighborhood associations engaged in a variety of activities in support of the war effort, both voluntary and compelled. One of their most important activities, especially in the later years of the war, was food rationing (Cwiertka 2013). Another was participating in national savings campaigns, which financed the war in Japan to a much greater extent than similar efforts at voluntary savings in other countries involved in the war. Most savings associations, which proliferated rapidly during the war years to the extent that by the end of 1944 nearly every household was a member of at least one savings association, were associated with neighborhood associations (Garon 2000, 58).

Neighborhood associations frequently organized their own waste collection schemes, and were almost always called upon to participate in campaigns organized by other groups as well. For national campaigns such as the "One House, One Item" campaign organized on the anniversary of the Marco Polo Bridge Incident in July 1938, neighborhood association members, as well as members of other types of associations, were the ones to collect the items door-to-door, and the collected items were stored at the neighborhood association office. The results of the campaign were tallied based on the amount collected by each neighborhood association.

Some neighborhood associations organized their own efforts to reduce and collect waste and scrap. In an April 1941 article, the *Asahi Shinbun* highlighted a neighborhood association in Tokyo's Itabashi Ward that had devised an elaborate waste separation system in order to reduce waste and raise money by selling valuable scrap. In this neighborhood, all types of waste, from paper scraps to old *geta* sandals to straw, were disposed of in separate trash cans so that each type could be sold as a resource:

became the lowest level of formal administration in cities. The lowest unit of the neighborhood association system under the wartime IRAA was the *tonarigumi*, consisting of about ten households in a neighborhood. A group of *tonarigumi* comprised a *chōnaikai* or *burakukai* ("village association"); these were under the direction of the city and prefectural levels of the IRAA. Here I follow Hastings and others in translating both *tonarigumi* and *chōkai* /*chōnaikai* as "neighborhood association" unless a distinction is necessary, in which case I will use the Japanese term.

In this way, one family in the *tonarigumi* has a trash can where only straw is collected. And someone else's trash can has only metal scraps. Because of this, the burden on the person who comes to buy it is much reduced, and moreover, because there are a lot of bales to buy in *tonarigumi* units, it naturally becomes far higher than the official price. (*Asahi Shinbun*, April 18, 1941)

The female head of this *tonarigumi*, Okabe Teruko, described the neighborhood association's garbage separation scheme as part of a larger effort to promote frugality in everyday life:

The members of the *tonarigumi* all wanted to do this and that, and all of the people in the *tonarigumi* cooperating to do it, that's the motto of our *tonarigumi*.

The first goal decided at the meetings was to stop the eagerness, at times of congratulations and condolences [*keichō nado no atta toki*], to say "that house put out this much, so our house will put out this much" and spend a lot.

Saving and collecting 5 sen each day, we decided for important family ceremonies [*kankonsōsai*] or sending soldiers off to war, the *tonarigumi* will give out two yen only, and they won't be done individually. "He who laughs off a penny now will later cry for its lack" [*issen o warau mono wa issen ni naku*] is written on the donation box, and it is sent around the neighborhood [*tōbanjun*], but everyone contributes enthusiastically. Next, the first thing was collecting ten sen each month in a bullet savings deposit [*dangan chokin*] to remember our troops on the front line.

Apart from that, 30 sen goes for patriotic savings [*aikoku chokin*] each month, and we have also been doing this for three years. With this savings, in May of next year the doorway will be furnished with a set of 12 yen masks of the highest quality.

In the vacant land in the back we can also grow fresh vegetables. The *tonarigumi* members gather in this vacant land to hold meetings. Well, I guess you could also call them open-air meetings. (*Asahi Shinbun*, April 18, 1941)

Similarly, an *Asahi Shinbun* article written by guest author Kageyama Ikuyo in March 1941 describes the author's effort to implement a trash sorting scheme in his own neighborhood association. Kageyama explains the purpose of this effort in terms of not only reducing material waste and saving resources, but also as reducing "waste" (*muda*) in the form of the labor and currency consumed by waste

collection in Tokyo: “In the city about 700,000 *kan*¹⁹ of garbage [*gomi*] from the garbage bins of 1,200,000 households is collected and incinerated. That requires about 2,100 workers each day, and costs 5,800,000 yen a year, but in these times of war this is within the limits of wastefulness. We think we should do something about this with our own hands” (Kageyama 1941). The author convinced his neighborhood association to install separate garbage bins for three types of garbage, “kitchen waste [*chūkai*] (things from the kitchen), mixed waste [*zakkai*] (dust [*chiri*], rubbish [*gomi*]), [and] recyclable material [*saisei busshitsu*] (metal, rags, paper scraps, etc.)” (Kageyama 1941). The author concludes the short article by proclaiming that proactive efforts such as these will help to alleviate the problem of material shortage, and that everyone should introduce such measures in their own neighborhood association meetings.

Both of these voluntary efforts at waste reduction and material conservation by neighborhood associations seem to have been in response to a call from the Tokyo city government in January 1941 for cooperation from citizens in order to reduce waste through reusing old materials (Tokyo Sanitation Bureau 2000, 107). It was around this time that wartime scarcity began to be felt more strongly in everyday life, and government propaganda to be frugal and save resources increased. In May 1941, an order from the Ministry of Health and Welfare mandated that each household should have separate containers for kitchen waste (*chūkai*), burnable mixed waste (*kanen zakkai*), and unburnable mixed waste (*funen zakkai*) (Tokyo Sanitation Bureau 2000, 107). Through pamphlets and circulars distributed through neighborhood associations, as well as through special lectures, demonstrations, and events, various branches of the national and local governments spread information about the importance of reducing and reusing waste. The majority of this propaganda was directed specifically at women, and much of it focused on reducing waste in the kitchen. For example, women leaders in collaboration with Tokyo city authorities and neighborhood associations held a “Symposium on Reducing Kitchen Garbage” (*Daidokoro gomi o herasu zadankai*) at which topics such as the best ways to prepare food and how to thoroughly use up ingredients were discussed (Tokyo Sanitation Bureau 2000, 110).

Women’s Associations and Waste Campaigns

Mass-membership women’s organizations such as the Patriotic Women’s Association and the National Defense Women’s Association were also major organizers of and contributors to waste reduction and collection movements. These organizations were often called on by government bodies like the National Spiritual Mobilization Council to turn out their members in support of official, national

¹⁹ A unit of weight equivalent to approximately 3.75 kilograms.

campaigns like the 1938 “One House, One Item” campaign, and they also frequently organized their own collection movements, usually to raise money for a specific goal.

One example of this is a waste collection campaign organized by the Patriotic Women’s Association in Tokyo in September 1939 called the “Gold Waste Collection Campaign” (Kin fuchaku haihin kaishū undō). Members of the Tokyo branches of the Patriotic Women’s Association went door to door, collecting the “buried gold” which they said was to be found in household waste. Their goal was to reach about 260,000 homes, or 20% of households in Tokyo city (*Asahi Shinbun*, August 20, 1939). The collected gold items were then transported to an extraction facility, where the gold and other valuable metals were removed from the items, melted down, and remade into gold bars or nuggets (*kinkai*). On September 22, 1939, several members of the Patriotic Women’s Association visited the facility to learn about the gold extraction process and help the workers. Their visit, as well as their dedication in continuing to collect gold waste from households, was praised by the *Asahi Shinbun* as a laudable expression of patriotism: “[...] by helping the workers in the high-temperature scrap melting room [...], they demonstrated the zeal of women of the home front” (*Asahi Shinbun*, September 23, 1939). The money raised from the sale of the precious metals collected in the campaign was donated to the army widows and orphans fund. As has often been noted, one of the major slogans during the war years was “Luxury is the enemy” (Garon 2000, Havens 1978). This and other campaigns to collect gold and silver run by other organizations were likely a reflection of this sentiment: extravagant items containing gold or other precious metals could be put to better use melted down to support the war effort.

The role of women and women’s organizations in organizing and participating in waste collection campaigns and other forms of wartime patriotic activities raises the question of to what extent these women were involuntarily “mobilized” by the state, and to what extent they chose to participate in these activities of their own volition, for their own reasons. The next section will discuss the issue of women’s agency in the context of wartime mobilization.

Wartime Mobilization and Women’s Agency

Wartime mobilization policies reflect the predominant gender ideology the Japanese state, but it is equally important to examine the ideas and actions of the mobilized women themselves. As noted above, the state had been mobilizing women to enact its social policies for decades. Although state policies were opposed by some women, particularly socialist women (see Mackie 2003), most women, including liberal feminists, ultimately embraced cooperation with the state, both in the prewar social campaigns and during the war. Indeed, prominent women leaders had been recruited to positions of authority in government committees and campaigns since the 1920s; their continued collaboration with

the state during the war should not be seen as anomalous (see Koyama 2014; Garon 1997; Nishikawa 1997; Katzoff 2000).

By the early 1930s, Ichikawa Fusae, one of the most prominent Japanese feminists and the founder of the League for Women's Suffrage, had already come to believe that cooperation with the authorities was essential for women's advancement. In a 1933 article advocating cooperation with the Tokyo city government to resolve the city's garbage crisis (see Chapter 1), she wrote, "However, by progressively taking on more responsibility, we will demonstrate the importance of the cooperation of women both in municipal governance and in general society, and additionally raise awareness among the female population of the connection between municipal governance and home life" (Ichikawa 1933, 4). Her prominent role in the state's wartime mobilization of women can be seen in the same light. Miyake points out that "the state's emphasis on women as the subjects of family-state ideology appeared to Ichikawa and other women as a step forward in their fight for sexual equality, because 'for the first time' women were being given an officially acknowledged role outside the home – even if that role merely allowed them to join patriotic associations and to come out to the train stations to send soldiers off to the front" (Miyake 1991, 273-274).

For many women, wartime mobilization was experienced as a type of liberation. Ueno, referencing Kanō, observes that "Women's participation in the public sphere, made possible by war, was both exhilarating and brought with it a new identity for women, and this is remembered as a feeling of spiritual uplift" (Ueno 2004, 38). Ichikawa and other women activists advocated strongly for the mobilization of ordinary women during the war; Miyake posits that "In so doing, they thought that they could demonstrate women's abilities" (Miyake 1991, 275).

The state was of course the primary force behind women's wartime mobilization activities. But above and beyond enthusiastically participating in such activities, there were also cases in which women devised and implemented their own efforts to support the war. The next section will examine one such event, the "Finding Waste in the Streets" campaign of 1938.

The "Finding Waste in the Streets" Campaign

Starting in the morning of 22 July 1938, "under the blazing sun," according to an *Asahi Shinbun* headline, hundreds of women set out onto the streets of Tokyo, searching for instances of "waste" (*muda*) (*Asahi Shinbun*, July 23, 1938). The women – members of women's groups such as the League for Women's Suffrage, the Young Women's Christian Association, and the Women's Peace Association, among others, which together constituted the Japan Federation of Women's Organizations (Nihon Fujin Dantai Renmei) – walked through and examined "amusement quarters, parks, offices, markets, and

eateries,” recording any waste they observed on cards distributed by the event’s organizers, the leaders of the Federation (*Asahi Shinbun*, July 23, 1938).

Eight hundred and eighty-three women from eleven women’s organizations (the eight organizations comprising the Japan Federation of Women’s Organizations as well as three other women’s organizations) participated, discovering 1,257 cases of “waste” in total. The results were announced at a presentation held in the Federation’s office the following day, 23 July 1938; a report on the event published in *Josei Tenbō* (Women’s Outlook)²⁰, the journal of the League for Women’s Suffrage, noted that the findings were “quite interesting” (*nakanaka omoshiroi kekka*) (*Josei Tenbō*, August 1938).

The occasion was an event to raise awareness of unnecessary waste called “Finding Waste in the Streets” (*Gaitō ni muda o hirou*), initiated by the women’s groups in response to a government campaign to strengthen the home economy. In the summer of 1938, the Japanese government announced the “Week for Emphasis on the Economic Battle” (*Keizaisen kyōchō shūkan*) starting from 21 July. The week’s activities, organized by the Central League of the Spiritual Mobilization Movement, were carried out nationwide, and according to an *Asahi Shinbun* article, “in Tokyo frugal consumption and practical use of materials, scrap collection, promoting savings, etc. in every direction are to be implemented” (*Asahi Shinbun*, July 20, 1938). Women were to play a large role in the week’s events because, as the newspaper article reported was the basis of the weeklong campaign, “Following the China Incident, national subjects are all soldiers in the economic battle” (*Asahi Shinbun*, July 20, 1938). This article reported on the activities for the “Week for Emphasis on the Economic Battle” being planned by women’s organizations, including a conference on hoarding prevention to be held on July 21, and the “Finding Waste in the Streets” event to be held on the following day. The article concluded by describing these events as examples of “the great efforts of women’s participation in the economic battle” (*keizaisen fujin sankā ni ōwarawa de aru*) (*Asahi Shinbun*, July 20, 1938).

The “Finding Waste in the Streets” event, which was held in Tokyo on July 22, the second day of the government’s weeklong campaign, was organized jointly by the leaders of the various groups in the Federation of Women’s Organizations. In contrast to the 1933 “garbage campaign” (*gomi undō*) organized by the League for Women’s Suffrage (see Chapter 1), which focused on material waste or garbage (*gomi*), especially in the household, the target of this event was *muda*, “waste” in a more abstract sense. The “waste” found in this campaign did include tangible waste like food, clothing, and paper, but also wastes of energy, land, and even time.

²⁰ *Josei Tenbō* was the continuation of *Fusen* (Women’s Suffrage), the official publication of the Women’s Suffrage League; the name of the journal was changed in 1936 “when that name [*Fusen*] became too controversial” (Molony 2011, 21).

The report of the event in the August 1938 issue of *Josei Tenbō* described its initial organization as follows:

For one week starting from July 21, as part of the Week for Emphasis on the Economic Battle [Keizaisen kyōchō shūkan], the government requested citizens [*kokumin*] to do such things as the conservation of all types of materials, hoarding prevention [*kaidame bōshi*], and savings promotion [*chochiku shōrei*]. Therefore, the Japan Federation of Women's Organizations, which was established for the purpose of investigating and implementing what women should do in light of current circumstances, – the League for Women's Suffrage is also one of the participating groups – devised and implemented an interesting plan called “Finding waste in the street” [Gaitō ni muda o hirou]. (*Josei Tenbō*, August 1938)

The purpose of the campaign, as reported in *Josei Tenbō*, was to discover waste in public spaces that may have been overlooked by men. Women, normally secluded in the home and with different sensibilities than men, would perhaps be able to notice wastefulness that men regarded as normal. Such an excursion would also be beneficial for the women themselves:

In other words, although most women commonly remain inside the home, for the eyes of these women to go out in the streets and uncover the waste of society is extremely enlightening for women, and is also quite a splendid thing for society now; [the event] was implemented from this idea [...] (*Josei Tenbō*, August 1938)

The *Josei Tenbō* article described some of the most common observations of waste reported by participants in the event, and occasionally offered commentary as to the causes of the waste or suggestions on how to improve the situation. Notably, the author of the anonymous article (likely Kaneko Shigeri²¹) directed criticism not towards individuals, but toward systems and standards that tolerated wastefulness.

²¹ I suspect Kaneko was the author of this piece because of similarities in writing style to other articles published under Kaneko's name in *Fusen/Josei Tenbō*, because Kaneko was the League for Women's Suffrage leader most likely to write about waste-related issues, and more significantly because Kaneko's name was not included in the article's list of women leaders present for the event (the article mentioned Gauntlett, Ichikawa, Kawasaki, and Matsuoka). Kaneko was one of the most well-known woman activists of the time, and the *Asahi Shinbun* reported her to be among the first women leaders present for the event (her name was listed second after Gauntlett Tsuneko, the leader of the Japan Federation of Women's Organizations, and the article featured a photograph of Kaneko and Gauntlett at the event). The most likely explanation for the omission of her name in the *Josei Tenbō* article is that she was its author, and humbly chose not to mention herself among the prominent women leaders.

For example, when describing the many instances of reusable waste being put into garbage cans, the article emphasized that this was a problem with the waste collection system, rather than the fault of those throwing things away:

Among the second [category], garbage [*gomi*], an extremely large number [of cases] pointed out valuable materials that were thrown into garbage bins as-is. Specifically, among materials that should be conserved in line with national policy, if things that should be effectively recovered [*saisei no kiku hazu no mono*] are thrown into the garbage can as waste and then incinerated, that’s the end of it. Therefore, rather than saying the ones throwing [things] out are bad, the question that should be settled first is the way the garbage collection method is devised. (*Josei Tenbō*, August 1938)

In other words, the report contended, there should be a system in place to divert useful materials out of the waste stream, rather than relying on citizens to know how such things could be reused. The article dealt similarly with food waste from cafeterias, blaming not the customers but the practices of the establishments: “Similarly for food waste (*zanpan*), if something is not done about the food arrangement doctrines (*moritsuke shugi*) of eateries, etc., as a rule we must not blame those leaving [food on the plate]” (*Josei Tenbō*, August 1938).

The report concluded with an itemized tally of the waste discovered during the event, organized into eleven categories. Table 2 shows the results as listed in the *Josei Tenbō* article.

Table 2. List of “waste” discovered in the “Finding Waste in the Streets” event, July 22, 1938

Category	Number of cases	Detailed list
1. Electricity	201	Government agencies 104; Shops 25 Individuals 28; Transportation 12; Electric fans, radios 16; Neon 16
2. Gomi	186	Vegetables, food waste 52; Incomplete 58; Wood 27; [Illegible] 16; Glass 8; Rubber 4; Rags (<i>boro</i>) 10; Various 11
3. Water	176	Public use 81; Private use 40; Shops 26; Drinking fountains 29
4. Steel	174	Public 25; Private 39; Waste 110

5. Paper	98	Public (streets, trains) 36; [Illegible] 7; Garbage bin 20; Packaging paper 15; Tickets 6; Governmental, printed 3; Other 11
6. Advertisements (<i>Kōkoku</i>)	79	Posters, fliers 53; Standing sign boards 9; In trains 2; [Illegible] 2; Flags 2; Various 2
7. Clothing	76	Women's 41; Men's 17; Common (<i>kyōtsū</i>) 10; Various 8
8. Fuel (<i>Nenryō</i>)	37	Gasoline 14; Coal 13; Matches 7; Gas 3
9. Time (<i>Jikan</i>)	29	
10. Vacant Land	23	
11. Various (<i>Zatsu</i>)	159	Tobacco 28; Saké 4; Buying sweets (<i>kaigui</i>) 6; Restaurants (<i>inshokuten</i>) 10; Public transportation 6; Offices 3; Lost property 11; Eatery samples (bentō, groceries) 16; [Illegible] 6; Packaging 4; Wreaths 10; Life improvement (<i>seikatsu kaizen</i>) 8; Buildings 6; Various 41

(*Josei Tenbō*, August 1938)

The *Asahi Shinbun* article reporting on the event described its purpose in a similar fashion to the *Josei Tenbō* article, presumably quoting the organizers: “[...] the women’s group, in two and threes, went looking for ‘the waste of society as seen through women’s eyes’ (*onna no me de mita yo no naka no muda*)” (*Asahi Shinbun*, July 23, 1938). However, after listing the organizations involved and some women’s leaders who were present, the newspaper described the activities in a somewhat condescending manner, characterizing them as faintly ridiculous:

Although [the women] slightly confused the townsfolk (*shimin*) with their show of zeal (*nesshinburi*), “unexpectedly there seems to be no waste” (*angai muda wa nai yō desu ne*) was the conclusion, the department store being targeted having escaped the difficult question due to being closed that day. (*Asahi Shinbun*, July 23, 1938)

At the end of the article, the *Asahi Shinbun* described another event that was held on the same day, also as part of the “Week for Emphasis on the Economic Battle:” a colloquium (*kondankai*) entitled “Women and Economics” (*Fujin to keizai*), jointly sponsored by the Tokyo prefectural governor, the Ministry of Health and Welfare (*Kōseishō*), and the Saving Promotions Department (*Chochiku shōrei*

kyoku). The panel, which began at 11:30 on 22 July at the Hibiya Matsumoto Tower, featured speakers from several government ministries, including the Ministry of Commerce (Shōkōshō) and Ministry of Finance (Ōgurashō), as well as more than ten women commentators (*fujin hyōronka*). The newspaper article, although it did not describe the content of the colloquium in detail, concluded by appraising it quite positively: “[They] agreed upon aiming for and striving toward victory in the battle of household economics through women’s initiative” (*Asahi Shinbun*, July 23, 1938).

The *Asahi Shinbun* article’s juxtaposition of the women’s waste finding event with the officially sponsored colloquium is telling. The latter event, attended by high-ranking (male) bureaucrats, was characterized as a fruitful discussion, while the description of the women’s waste finding event was filled with examples that made it seem less than serious. In addition to the anecdote about the department store that was free of waste because it happened to be closed, the examples of the waste recorded by the women on cards given by the newspaper included only “flower garlands for funerals” and “a man’s Western-style overcoat.” The major findings of the campaign – such as electricity being the most common form of waste, the many instances of water leaking from pipes and faucets, the role of restaurants’ plating customs in the amount of food waste, or the prevalence of printed documents from government offices among paper waste, which were discussed in the *Josei Tenbō* report of the event – were mentioned in the *Asahi Shinbun* article either briefly or not at all. The newspaper’s somewhat condescending treatment of the women’s event – which, while created in response to the government’s official “Week for Emphasis on the Economic Battle,” was organized and carried out entirely by the women’s groups themselves, with no sponsorship from government agencies – may have been a reaction to the novelty of women (quite literally) stepping outside their prescribed place in the home and entering the domain of men for the purpose of criticizing it.

The Significance of the Campaign

While this event is just one example of women’s active involvement in wartime mobilization efforts, it is significant because it demonstrates women’s agency in shaping their relationship with the state. Most wartime mobilization of women was indeed top-down and directed by the state; while women participated, often with great enthusiasm, the activities themselves were usually determined by the state. The “Finding Waste in the Streets” campaign, however, was carried out entirely through the women’s own initiative, and in fact directly conflicted with a state-sponsored event, the colloquium on women and economics that was held the same day. The event, involving women leaving the home and applying a critical gaze onto society, also subtly challenged the prevailing ideology that women’s role should primarily be domestic in nature.

Koyama's (1999) analysis of the process of the integration of women into the nation-state (*josei no kokuminka*) emphasizes the role of the state in shaping the home (*katei*), which defined the role of women in the nation-state. Because women were positioned as the central figures of the household, their cooperation became necessary when the state began implementing policies related to "daily life," and these state campaigns resulted in a direct relationship between women and the modern nation-state. Koyama notes that the state actively sought the contributions of women to its social policies, for example by appointing women as commissioners and members of various policy survey committees or inviting them to be speakers at government-sponsored educational lectures (Koyama 1999, 188). Women in turn were active and enthusiastic participants in these endeavors. From June 22 to August 31, 1918, for example, the Ministry of Education (Monbushō) held an "Exhibition on Using Waste" (*Haibutsu riyō tenrankai*) that demonstrated ways to reuse materials that would otherwise go waste (for example, the cloth from an old umbrella could be made into a sitting pillow or a shawl). Several lectures on the reuse of waste were also conducted during the exhibition period. The exhibition, which was scheduled to end on July 22, was extended an extra month due to its popularity, and attracted about 67,000 total viewers, or approximately 944 per day (Koyama 1999, 78-79). This event exhorted women to comply with state policy by reducing waste in their everyday lives, and while women participated gladly²², neither the goal nor the methods were determined by them.

While this conception of women's evolving relationship with the state acknowledges women's active participation, it nevertheless frames the *kokuminka* process as fundamentally directed by the state in service of state goals. However, events like the 1933 garbage campaign led by Kaneko Shigeri and other members of the League for Women's Suffrage and the 1938 "Finding Waste in the Streets" campaign show that women not only accepted their new relationship with the state, they also attempted to actively influence it by devising and implementing social campaigns of their own.

With the "Finding Waste in the Streets" event, the women's groups pushed the boundaries of their prescribed role, not only by leaving the home and roaming the streets, but also by taking the initiative to address a social problem on their own terms rather than participating in a government-sponsored event – such as the colloquium on women and economics which was held the same day. Additionally, the women's initiative, while ostensibly held to further the goals of the government's "Week for Emphasis on the Economic Battle," actually took the form of a critique of existing systems. Rather than criticize households or individuals for the waste they found, the *Josei Tenbō* article instead pointed the finger at the systems – the garbage collection system, restaurant plating customs, government

²² The event was popular among most women, but was also criticized in women's magazines for failing to take into account the time such "reuse" would take; the usefulness of some of the re-made objects to the average housewife was also questioned (Koyama 1999, 80).

bureaucracies – which created waste either directly or indirectly. This event shows that even those women who embraced cooperation with the state and actively worked to support state goals did not accept this relationship uncritically. Rather, they acted as full (if not equal) participants in their relationship with the state, contributing their own ideas, initiatives, and even criticism to wartime mobilization efforts.

After realizing the importance of the household to national strategy after World War I, the Japanese state, particularly the Home Ministry and the Ministry of Education, “adopted new programs that made women the state’s prime agents in improving ‘daily life’” (Garon 1997, 129). Women, as the managers of the household, gained a new importance to the national economy: “Women were mobilised for various government campaigns aimed at reducing consumption and rationalizing everyday life, such as the ‘Thrift and Diligence Promotion’ campaign which started in 1924 and the ‘Public and Private Economic Austerity’ campaign starting in 1929” (Koyama 2014, 96). The mobilization of women in these interwar campaigns continued in much the same fashion as wartime mobilization as Japan entered the Second Sino-Japanese War in the 1930s. Until the last years of the war, in an explicit effort to preserve the family system, Japanese mobilization of women on the home front focused on the primacy of their domestic roles as mothers and housewives: “the roles of ‘reproductive soldiers’ and of ‘warriors in the economic war’” (Ueno 2004, 44). The cooperation of both women’s leaders and ordinary women with the state began much earlier than the implementation of a “total war” system in the later years of the Asia-Pacific War.

Although most scholarship on the incorporation of women into the nation-state tends to emphasize the role of the state (e.g., the state’s shaping of the modern household [Koyama 1999], the state’s “gender strategy” [Ueno 2004]), the case presented in this chapter, the 1938 “Finding Waste in the Streets” event, demonstrates women’s agency as active partners in their relationship with the Japanese state. While the state retained almost all the power in its relationship with women, women were nevertheless able to subtly critique the current way of doing things (in this case, the waste collection system), offer their own ideas for improvement, and design and implement their own campaigns in support of the war effort. In this case, women’s groups seized on the government’s “Week for Emphasis on the Economic Battle” to stage their own initiative supporting the war economy through identifying needless waste, directed and implemented by the women’s groups themselves, which was (coincidentally or not) held on the same day as an officially sponsored colloquium on “women and economics.” With this event, the women’s groups asserted that “women’s eyes” being on the streets, rather than in the home as usual, would enable them to see waste that men could not, and would thus be of major benefit to the state and society. By asserting that women could be of benefit to the war effort in a manner that had not been expressly condoned by the state (and that subtly questioned the primacy of women’s domestic role), the

women's groups demonstrated their autonomy as national subjects in shaping their place in the nation-state.

Chapter 3

Household Waste Work and Gendered National Belonging: Garbage in Tsukuba City

“... I was told by my mother, ‘It’s not good to let a man take out the garbage on his way to work,’ so that’s why I take out the garbage myself.”

Ishii Rie, Tsukuba housewife (interview by the author, July 17, 2015)

As described in the introductory chapter, the rise of recycling in recent years has been accompanied by increasingly complicated rules for household waste sorting in most Japanese cities. Unlike in many cities in Europe and the United States, which employ technological measures such as single-stream recycling facilities that reduce the burden of separation for residents (Peek 2013), in Japan elaborate garbage separation regulations are the norm. Additionally, because each municipality devises its own waste regulations (in accordance with general national requirements), the separation category and disposal requirements for the same item may be completely different from one town to the next. Accordingly, the number and complexity of separation categories vary significantly by municipality. In a study of waste separation in Japanese cities based on data from 2008, Matsumoto (2011, 329) found that the average number of separation categories was 11.93.

Waste separation is not merely a matter of placing waste items in different containers. In most cases, specific instructions must be followed for recyclable items in particular: plastic containers should be rinsed and dried; PET bottles should be rinsed, dried, and the cap and label removed; milk cartons should be rinsed, dried, cut open, and tied together in a bundle for collection; and so on. All this can add up to a significant amount of time and labor to be performed by residents in the interest of having their garbage collected. (In most municipalities, incorrectly sorted garbage will not be collected; a note explaining the infraction will be placed on the offending garbage bag, and the resident is expected to take it back and put it out correctly on the next collection day.) Kaneko (2010, 27-28) examined the value of citizens’ environmental labor contributions in Yokosuka city and found that, in 2006, Yokosuka citizens spent 3,081,376 hours performing voluntary environmental activities, with an estimated monetary value of 3,169,811,491 yen, or 38.5% of the city’s environmental services budget. Notably, this figure includes

only voluntary environmental activities outside the home; if household waste separation and other domestic labor had been included, the numbers would be even higher.

Who is performing the relatively large amount of unpaid labor required by most cities' waste management systems? Perhaps unsurprisingly, most studies indicate that it is overwhelmingly women. In a 2001 survey, Ohnuma et al. (2005, 4) distributed a questionnaire to Nagoya residents about the city's newly introduced strict recycling policies, with the request that the person "mainly responsible for separating recycling materials and waste in the household" complete the survey. Out of 1442 respondents, 1242 (86.4%) were women and 195 (13.6%) were men, which, as the authors noted with some understatement, "[indicated] a sex difference regarding who was mainly in charge of separating recycling materials and waste in the households" (Ohnuma et al. 2005, 4). Forty percent of respondents were full-time homemakers. Other studies, such as Negishi and Yuzawa (2003), Kurisu and Bortoleto (2011), and Na (2009), also indicate that women are more likely than men to be interested in garbage management and to be aware of environmental problems posed by garbage.

Matsumoto's 2011 analysis of sorted waste collection in Japanese cities showed that municipalities tend to "implement recycling programs that fit the demographic profiles of their residents," an unsurprising result considering that most municipalities solicit residents' feedback about the waste collection system both before and after the implementation of new policies (Matsumoto 2011, 325). Matsumoto also found that having fewer wives working full time was correlated with a city having a more complicated separation system: "With respect to full-time workers, we found that a one-hour increase in a husband's market work increased the number of waste separation categories by 0.23 while a one-hour increase in a wife's market work decreased the number of waste separation categories by 0.47, perhaps suggesting that husbands and wives do not take equal responsibility for waste management at home" (Matsumoto 2011, 331).

Taken together, these studies suggest that in Japan, household waste management is the duty of the wife, whether or not she is also engaged in full-time or part-time work outside the home. We might speculate with some justification that the 13.6% male respondents in Ohnuma et al.'s study were bachelors, and that in all or nearly all of married couple households it is the wife who takes primary responsibility for managing waste.

On the other side of this gendered dynamic is waste work outside the home, which is overwhelmingly performed by men in paid employment. Although "waste management" is not tracked as an industry in Japanese employment statistics, jobs associated with waste management – garbage truck driver/waste collector, machinery operator at incineration or recycling facilities, engineers – are in fields that are heavily male-dominated. In 2016, for example, 97.7% of "transport and machine operation workers" were men (Statistical Handbook of Japan 2017). (However, cleaning jobs, which in some

institutions may involve collecting, sorting, and removing waste – and are more likely to be part-time – may have a more equal gender distribution: “carrying, cleaning, packaging, and related workers” were 55.3% male and 44.7% female [Statistical Handbook of Japan 2017]).

These numbers indicate a striking gender difference in waste work: men overwhelmingly perform waste work outside the home, for which they are paid, while women overwhelmingly perform the private, unpaid waste work inside the home. Of course, this disparity should not be seen as unusual in the Japanese context; it is merely a particularly stark example of the overall gender imbalance in the Japanese labor force as a whole. In 2016, women’s labor force participation rate was 50.3%, compared with 70.4% for men (Statistical Handbook of Japan 2017).

The field of waste work, in the home and the public sphere, can therefore serve as a useful site to examine gender differences in labor, both public and private, which are intimately connected to issues of citizenship and national belonging. In order to examine these issues, I will employ a case study of one city in Japan, looking at the system of waste management in general, as well as the gendered divisions of labor and national belonging in the arena of waste work. The next section will introduce Tsukuba, the city where I carried out my ethnographic fieldwork, as a case study of gender and waste management in contemporary Japan.

Waste and Gender in Tsukuba City

In order to study the waste situation in Tsukuba, I carried out ethnographic fieldwork in the city, where I lived for about 18 months from 2014-2016. (A detailed explanation of the methods I employed during my fieldwork can be found in the Introduction.) During this time I was affiliated with the National Institute for Environmental Studies, a governmental research institution focused on environmental issues. My affiliation with the Sustainable Material Cycle Systems Section of the National Institute for Environmental Studies Center for Material Cycles and Waste Management Research was a crucial factor in gaining access to interviews with representatives of Tsukuba’s waste and recycling institutions. A senior researcher in the department was a member of the Tsukuba City Waste Reduction Promotion Committee (Tsukuba-shi Ippan Haikibutsu Genryō tō Suishin Shingikai), the city’s official waste management planning council, and with his help I was able to observe a meeting of the committee and introduce myself to the committee members. Based on this introduction, I was able to send emails explaining my research and requesting interviews with the committee members. Although not all of them responded to my request, most agreed to an interview or recommended another person in their organization who would be willing to speak to me. The interviews and observations of the organizations listed in Appendix 1 (“List of interviews and fieldwork observations of Tsukuba waste and recycling

organizations”) were arranged through the connections I made at the Tsukuba City Waste Reduction Promotion Committee meeting, with the exception of the interview with the Morinosato Neighborhood Association Chairman. This interview was arranged with the help of two other Sustainable Material Cycle Systems Section researchers who were conducting their own research with the neighborhood association, and invited me along to observe and ask my own questions. Before each interview, I provided each interviewee with an explanation of my research and a list of topics I wanted to cover in the interview. Each explanation sheet was different depending on the organization, but an example explanation sheet, used for my interview with a researcher at the National Institute of Advanced Industrial Science and Technology, is included as Appendix 3. The interviews were recorded, with the permission of the interviewees, using an audio recording device, and I took notes during the interviews. When appropriate, and with permission, I also took photographs of the waste and recycling facilities I observed. All names of interviewees and informants mentioned in this chapter are pseudonyms.

In addition to these formally arranged interviews with city waste and recycling institutions, I also carried out less formal interviews with Tsukuba residents, and in some cases visited their homes to observe their household waste management arrangements. Most of these household interviews were arranged with the help of the wife of a Sustainable Material Cycle Systems Section researcher. This woman taught a local cooking class, and mentioned my interest in interviewing Tsukuba residents about waste to her students, most of whom were housewives living in Tsukuba. She passed me the contact information of those who expressed interest, and I arranged interviews with them. Some of these interviewees mentioned my research to their friends, and I was able to expand my contacts gradually through this snowballing method. I was also introduced to a few interviewees by Shōno Takako, the representative of NPO Tsukuba Creative Recycle whom I met at the Waste Reduction Promotion Committee meeting (see Chapter 4). Before each interview, I provided each interviewee with an explanation of my research and a list of topics I wanted to discuss (see Appendix 4). The interviews were recorded, with permission, and I also took notes and photographs (with permission) when appropriate. Detailed information about the household interviews I conducted is listed in Appendix 2.

In addition to interviews and formal and informal observations, I collected and analyzed documents relating to Tsukuba’s waste management system from the city and other organizations. The following analysis of waste management and waste work in Tsukuba city is based on these interviews, observations, and documents.

Tsukuba City

Tsukuba is a mid-sized city in Ibaraki Prefecture, about 70 kilometers north of Tokyo. To reach Tsukuba from Tokyo, the fastest route is the Tsukuba Express train line, which runs from Akihabara in central Tokyo to Tsukuba Station. On disembarking, despite the many tall office buildings, hotels, and shopping centers surrounding the train station, you will immediately sense that you are no longer in Tokyo because of the relatively open spaces, the wide roads, and the relative lack of dense crowds of people, even at rush hour. This is not to say that there are no crowds at all: on the contrary, the Tsukuba Express is often packed with commuters during the rush hour periods, but the density is usually much less than commuter trains in the Tokyo metropolitan area proper. Despite its proximity to Tokyo, Tsukuba is not merely a bed-town for commuters; in fact, more people commute to Tsukuba for work than Tsukuba residents commute to other places. In 2016, 41,298 people commuted to Tsukuba for work, while 29,303 commuted from Tsukuba to another city (Tsukuba City 2017).



Map of Tsukuba in relation to Tokyo (Google Maps 2017).

Walking north from Tsukuba Station, after crossing a wide street that becomes packed with cars during rush hour, the next thing a visitor to Tsukuba is likely to notice is the distinct twin-peaked outline of Mount Tsukuba in the distance, rising dramatically from the mostly flat landscape. Mt. Tsukuba is the most notable geographical feature in the area, and gives its name to both the current city and the former

village which merged with five others to form the present-day municipality. Before the merger, the townships in the area were collectively known as “the Mt. Tsukuba-south area” (*Chikunan chihō*) (Tsukuba City 2010).

If you were to travel around Tsukuba by car, perhaps on either the broad Gakuen-Nishi Ōdori or the Gakuen-Higashi Ōdori boulevards running parallel on the west and east sides of the city, the numerous signs for research institutes such as the National Institute of Advanced Industrial Science and Technology (Sangyō Gijutsu Sōgō Kenkyūsho), the National Institute for Materials Science (Busshitsu Zairyō Kenkyū Kikō), or the (Kishō Kenkyūsho) might alert you to the fact that Tsukuba is no ordinary city. Tsukuba is perhaps best known for its designation as a “Science City” (Kenkyū gakuen toshi) home to more than 300 public and private research institutions. It was officially incorporated as a city (*shi*) in 1987, with the merger of four smaller townships (a fifth town joined the city in 1988, and a sixth in 2002), but plans for the creation of “Tsukuba Science City” had been in place since the 1960s (Morris-Suzuki 1994, 180).

The region has experienced steady population growth and economic expansion since the plans for Tsukuba Science City were first announced in the 1960s. The city now has a population of about 226,000 (Tsukuba City 2017). One official at the Tsukuba City Office explained that there are three types of people now living in Tsukuba City: those whose families had lived there originally (since before the 1960s), those whose families moved there in the wake of the initial announcement of Tsukuba Science City, and those who had moved there following the completion of the Tsukuba Express train line, which connects Tsukuba with Akihabara in Tokyo, in 2005 (interview by the author, March 26, 2015). This three-way division reveals the rapid changes Tsukuba has experienced even within the past decade; previous studies highlighted the divide between Tsukuba’s original residents (*jimoto*) and newcomers who arrived in the 1970s and 80s (Larzalere 2006). The city official’s explanation shows that Tsukuba’s growth and expansion, rather than bridging existing divisions, has created new ones.

The Tsukuba Express line has provided an impetus for many retailers and businesses to set up shop around the four stations in Tsukuba city, especially central Tsukuba Station, spurring economic growth. Despite the best efforts of officials at the city’s Environmental Bureau, this growth has led to a concomitant increase in waste. Although the overall volume of waste decreased in the mid-2000s as a result of new waste sorting regulations and new fees for business waste, in the past few years the volume has increased to record highs: in 2015, the city produced 94,267 tons of waste (Tsukuba City 2017).

In order to give context for the current waste situation in Tsukuba, the next section will briefly outline the history of waste management in the city.

Waste History

The history of Tsukuba's post-war waste management reflects its unique development as Japan's "Science City." Official waste collection and construction of waste management facilities came later than in Tokyo or other large cities, but from the 1970s, waste management practices began changing rapidly. Before the 1970's, there was no official waste collection, and residents – largely agricultural workers in rural areas – dealt with waste on their own. Traditional methods included simply burying waste in the ground, or more commonly for farmers, field burning (*noyaki*). Official collection of household waste began in three of the six pre-merger townships in 1972; collection in the remaining three townships started in 1974. Initial waste collection involved a tiny fleet of collection vehicles managed by a regional administrative body called the Mt. Tsukuba-South Regional Governance Association (*Chikunan chihō kōiki gyōsei jimū kumiai*) set up in 1972 to facilitate collective governance in the six townships prior to the planned merger (Tsukuba City 2010). The Association (which was formally disbanded in 2002, after the merger of the final township into Tsukuba City) was also charged with managing the fledgling city's first waste incinerator, which was announced in 1972 and completed in 1974. The incineration facility, called the First Sanitation Center (*Daiichi Eisei Sentaa*), was comprised of two furnaces each capable of processing ninety tons per day. A facility for processing oversized garbage was built in 1977, with a processing capacity of fifty tons per five hours.

These measures satisfied the waste disposal needs of Tsukuba residents until the late 1980s, when increasing consumption from the bubble economy, an increase in population caused by the influx of new research institutions and existing institutions relocating from Tokyo, as well as a growing awareness of environmental concerns throughout the country, led city officials to direct more resources towards improving the waste management system. In 1987, the city began gradually introducing designated bags for burnable garbage – clear plastic bags marked "Tsukuba City Burnable Garbage" which could be purchased from local supermarkets and convenience stores. The designated bag system was fully implemented throughout the city by 1992. In 1991, the same year that Japan passed its first national recycling law, Tsukuba City introduced a series of regulations to increase recycling (which previously had only been undertaken voluntarily, by private companies). In conjunction with a number of new recycling regulations, the city began separate collection of recyclables including aluminum/steel cans, glass bottles, paper, and cloth. Collection of used milk cartons also began at elementary and middle schools, civic centers, and welfare centers in the city. The city introduced designated bags for cans and bottles; unlike the bags for burnable garbage, bags for recyclables were distributed for free (Tsukuba City 2010). (As part of an overhaul of the garbage collection system resulting from the construction of the new Clean Center, in 1998 the burnable garbage bag system was changed to include three sizes of bag – 20,

30, and 40 liters – and designated bags for recyclables were no longer required.) Additionally, the city implemented a subsidy system for volunteer groups collecting recyclables, paying groups three yen per kilogram of collected material, with a maximum subsidy of 25,000 yen.

In 1992, Tsukuba's evolving waste management system was put to the test in the city's first major "garbage emergency" (*gomi hijō jitai*). In April, the waste incineration facility was shut down for two days for a routine annual inspection. On the day that it resumed operation, the waste brought in by garbage trucks exceeded the amount that could be processed, and about thirty garbage trucks were forced to leave with the garbage still piled inside. When the same thing occurred the following day, the city declared a garbage emergency, placed limits on the number of garbage trucks entering the incineration facility, and established a committee to devise emergency countermeasures. For one month, the city limited waste collection to kitchen scraps, city officials provided "separation guidance" (*bunbetsu shidō*) at 335 locations around the city, and the incinerator was refurbished to increase its processing capacity. As a result of these measures, normal garbage collection service resumed a month later (Tsukuba City 2010).

The revisions to the national Waste Management and Public Cleansing Law in 1991 required municipalities to take more proactive measures to with regard to waste disposal planning. In order to comply with the new regulations, in 1994 the city presented the Tsukuba City Fundamental Plan for General Waste (Garbage) Management (Tsukuba-shi ippan haikibutsu [gomi] shori kihon keikaku). The plan was to guide Tsukuba's waste management from 1995 to 2009, with periodic revisions. A mid-term revision was undertaken in 2000, and a late-stage revision in 2005. In 2010, the city's Second Fundamental Plan for General Waste (Garbage) Management, for the period from 2010 to 2021, was published; this plan was revised in 2015. The purpose of these plans was to rationalize long-term waste management planning.

In the late 1990s and 2000s, the city of Tsukuba began to focus on technological improvements and increased recycling as solutions to increasing amounts of garbage. This was in line with the general trend of waste management and recycling in Japan as a whole; various cities began increasing and strengthening waste regulations and recycling policies, while at the national level several new recycling laws were introduced in quick succession (see the introductory chapter). In Tsukuba, a new waste processing facility called the Clean Center (Kuriin Sentaa), which had been in planning for several years, came into operation in 1997. The new facility contained three furnaces each able to process 125 tons per day, and was capable of generating electricity from the incineration process. The original First Sanitation Center incineration facility, which by that time was somewhat outdated technologically, ceased operations following successful trials of the Clean Center incinerator. In 2010, Tsukuba Wellness Park, a recreation

facility and park located next to the Clean Center, was opened; the park's electricity needs, as well as heating for its indoor pool, are supplied by the incinerator (Tsukuba City 2010).

In accordance with national Home Electronic Appliances Recycling Law (Kaden risaikuru hō), Tsukuba ceased collecting televisions, air conditioners, refrigerators, and washing machines as oversized garbage in 2001 (the new law required that these items be collected and recycled by the manufacturer). In 2003, the same measure was applied to personal computers. Collection of PET bottles twice a month began in 2001.

In 2005, several significant changes were made to the waste management system, which successfully, if temporarily, reduced the overall volume of waste in Tsukuba. First, oversized garbage (*sodai gomi*) was excluded from regular collection and changed to a separate collection, fee-based service. Second, the city began producing and distributing a handbook explaining how to sort and put out garbage. Most significantly for waste reduction in the city, a fee system was introduced for processing business waste (*jigyōkei gomi*). Previously, waste from businesses was collected in the same manner as household waste, with the only fee being the purchase of designated bags for burnable waste, but the new regulation charged a set amount for each kilogram of waste produced by a business. This policy both increased the city's revenue and created an incentive for businesses to produce less waste (Tsukuba City 2010).

Waste Management in Present-Day Tsukuba

In 2012, Tsukuba City produced 84,307 tons²³ of general waste, or 1,068 grams per person per day. Out of this total amount, 34% was business waste and 66% was household waste. Compared to other Japanese cities of its size, Tsukuba has a larger than average amount of business waste, and an average amount of household waste, meaning that its total waste overall is higher than both the national and prefectural averages. In 2011, Tsukuba ranked 34th out of 44 cities in Ibaraki Prefecture in amount of total waste (the ranking is from lowest amount of waste to highest). It ranked 22nd out of 44 for household waste, and 38th for business waste (Tsukuba City 2013). City officials are concerned about the high amount of business waste (while acknowledging that it is perhaps a natural consequence of housing an outside number of organizations and institutes), and plan to strengthen measures to encourage businesses to produce less waste (interview by the author, March 26, 2015).

²³ This number does not include approximately 4,460 tons of waste resulting from a tornado that struck the northern part of the city in 2012 (tornado waste is not included so that waste statistics can be compared year to year to assess the city's progress in reducing waste).

In 2012, the city recycled 9,924 tons of waste, a recycling rate of 11.8%. This was something of an improvement over 2011's rate of 8.3%, compared to a national average of 20.4% and a prefectural average of 20%; Tsukuba had the lowest recycling rate in Ibaraki Prefecture (Tsukuba City 2013). (One reason for the sudden increase in the recycling rate from 2011 to 2012 was simply a change in measurements - they started including estimates of the amount of direct recycling by companies, which previously had not been included.) Unlike most other cities, Tsukuba does not collect and recycle packaging plastic, which is one reason for the low recycling rate; another is the low rate of collection of mixed paper for recycling. Officials at the waste management office thought that residents might not realize that the city collected mixed paper as well as the more common newspaper and cardboard, and began to include specific instructions for mixed paper separation in the 2015 garbage collection calendar (interview by the author, March 26, 2015).

Tsukuba spends less than average on waste management; in 2012, the city spent 22,612 yen per ton of waste processed, or 8,812 yen per person per day. In 2011, Tsukuba spent 8,205 yen per person per day, compared to a national average of 15,945 yen and a prefectural average of 19,407 yen (Tsukuba City 2013).

Waste Work in the City

In accordance with national regulations, municipalities in Japan are responsible for managing waste within their jurisdictions. Depending on the unique circumstances in each city, some municipalities choose to carry out waste management duties directly, while others prefer to subcontract the work to private companies. Tsukuba, along with about 60% of municipalities in Japan, subcontracts waste collection and final disposal to a variety of private companies, which are selected annually from a competitive bidding system. The city's Waste Management Division oversees, plans, and administers Tsukuba's municipal waste management, but nearly all of the manual labor involved is performed by employees of subcontracted private companies. With the exception of a few women working in the city Waste Management Division and in one clothing recycling company, all of the waste management workers I observed in Tsukuba were men.

Administration of waste management in Tsukuba is primarily handled by the Waste Management Division (Haikibutsu Taisakuka, literally "waste countermeasures division"), a section of the Environment and Living Department (Kankyō Seikatsubu) of the City Office. The Waste Management Division is in charge of drafting and publishing documents related to waste management (the waste collection calendar, waste separation guidelines, yearly pamphlets about the state of waste management in

Tsukuba), making contracts with the waste transport companies that collect household garbage, and otherwise managing the day to day processing of waste.

The Waste Management Division is also in charge of drafting, revising, updating, and publishing Tsukuba's waste regulations. These rules, which are published on the City Office's website, are revised every five years, with the contributions and recommendations of a committee including waste researchers, representatives of large businesses, local council members, and representatives of citizens' groups. This committee most recently convened at several meetings from 2014-2015; major topics discussed included how to increase Tsukuba's relatively low recycling rate, strategies for introducing separate collection of plastic packaging waste, and how to reduce Tsukuba's relatively high amount of business waste (interview by the author, March 18, 2015).

The Clean Center is managed by its own division of the Environment and Living Department. Administrative staff for the Clean Center are city employees, but the day to day work of the Center is performed by employees of contracted private companies (interview by the author, April 17, 2015). All of the employees I saw working at the Clean Center were men; I saw a few women in the office of the city Waste Management Division, but those in senior positions in the office, two of whom I interviewed, were all men.

Household waste is collected from Tsukuba's 4,319 collection stations and taken to the appropriate waste management facility by contracted (*itaku*) waste transport companies. There are over 60 such companies for transporting household waste including burnable, non-burnable, and recyclable waste; in total, they operated 101 trucks and had a carrying capacity of 231 tons in 2013. For business waste, businesses and organizations can make a private contract with one of more than 40 licensed (*kyoka*) business waste transport companies; in 2013, these companies together operated 241 trucks with a carrying capacity of 995 tons (Tsukuba City 2013).

Companies that collect burnable garbage typically use a compactor truck which compresses garbage²⁴; when full, the trucks take the waste to the Clean Center. If the garbage at the collection separation is not correctly sorted (for example, burnable waste put out in a regular plastic bag instead of a designated bag), the workers do not collect it, and it is the responsibility of the household which put it out to correct the error. Garbage which is mistakenly put out on the wrong day may be left in place until the correct day comes around, or it may be dealt with (typically, transported to the Clean Center by a volunteer) by the neighborhood association or the contracted cleaning company (most apartments contract a private cleaning company which also manages the garbage collection station).

²⁴ Occasionally, spray cans incorrectly placed in burnable garbage cause explosions when compressed in this type of truck; two such incidents occurred in Tsukuba in 2014 (interview by the author, April 17, 2015).

Burnable garbage, which comprises the bulk of household waste in Tsukuba, is deposited into a large “garbage pit” (*gomi pitto*) at the Clean Center incineration facility by waste transport trucks via chutes in the wall between the truck area and the garbage pit. (The garbage pit is partially exposed to the outside via these openings, and as a result a thriving population of pigeons and crows has taken up residence in the pit.) Large mechanical claws, operated by a Clean Center employee, pick up waste from the pit and deposit it into chutes that lead into the incinerators. Currently, two of the Clean Center’s three incineration furnaces are in operation (having three furnaces allows the facility to scale its operations up or down to match the volume of incoming waste). They are in operation 24 hours a day, and monitored by a crew of four employees during the day and five at night. The incinerators generate 50 tons of ash per day, which is transported five times per week by a waste transport company to a privately owned landfill in nearby Shimotsuma City. The incinerator also generates electricity (energy recovery) (interview by the author, April 17, 2015). In 2012, the facility generated 24,695,037 kilowatt hours of electricity, most of which was sold to the electric company (Tokyo Electric Power Company) at a profit (Tsukuba City 2013).

Tsukuba City’s oversized garbage (crushing) facility, in a different location than the incineration facility, breaks down unburnable and oversized garbage; the remnants are separated into burnable, unburnable, and recyclable/resource garbage (scrap metal) by magnet separators and other technologies. The burnable garbage remnants are sent to the incineration facility, while the unburnable garbage remnants are sent directly to the landfill. The crushing facility has a processing capacity of fifty tons per five hours. The valuable resource collection facility (*yūkabutsu kaishū shisetsu*) is located next to the crushing facility, but operated by a private company. Cans are separated into aluminum and steel, then pressed and sold. Glass bottles are separated by color, and then given to recyclers as cullet. Paper and cloth are temporarily stored in the facility, then sold (Tsukuba City 2010).

Tsukuba does not have its own landfill, and instead contracts a private landfill company in nearby Shimotsuma city to landfill the remains of its waste. The landfill has been in operation for 19 years, and is estimated to have 15 years of capacity remaining. In 2012, Tsukuba landfilled 173 grams of waste per person per day on average (13,649 tons total) (Tsukuba City 2013). In 2009, Tsukuba City spent 26,250 yen per ton of waste landfilled, comprising 15.2% of the city’s waste management budget (Tsukuba City 2010).

Recycling in Tsukuba is handled by private companies and, for some items, the Japan Containers and Packaging Recycling Association (JCPRA). The JCPRA is a government-designated organization charged with managing packaging recycling; manufacturers of products that entail packaging waste are obliged to pay an annual fee to the JCPRA, which contracts recycling companies to process and recycle the waste. The recycling companies are then paid out of the manufacturers’ fees after the JCPRA

confirms that the recycling has been completed properly (Japan Containers and Packaging Recycling Association 2008). In Tsukuba, PET bottles, glass bottles, and paper cartons are handled by the JCPRA; aluminum and steel cans and used clothing, which are more profitable, are sold directly to recycling companies.

One company that receives used clothing from Tsukuba City is Uesu Yamaoka²⁵, a family-owned business that operates several factories in Ibaraki and other prefectures, and receives used clothing from many cities. Incoming cloth is inspected and sorted manually by employees; clothing that seems wearable is bundled together, pressed by machine into large shipping containers, and sold to manufacturers in Southeast Asia. Clothes that can't be worn will be shredded at the factory and sold as rags to companies in Japan and abroad. The company ships about 4,023 kg of clothing per day (interview by the author, April 14, 2015). This company was also where I saw the only women employed in the private sector waste industry in Tsukuba. The two women I saw, out of about ten employees, did the work of sorting clothing by type.

Waste Work in the Community: Neighborhood Associations

The waste work performed by residents as part of neighborhood associations – unpaid labor performed in public – can perhaps be considered a type of community waste work. Neighborhood associations (*jichikai* or *chōnaikai*; in Tsukuba, they are officially called *kukai*) have a long history as organizing units of residential life in Japan (Bestor 1989; Pekkanen et al. 2014). In addition to social activities like organizing the local festival or arranging trips to hot springs, neighborhood associations also help regulate some aspects of local waste management on a (typically unpaid) volunteer basis. In many neighborhoods, maintenance of garbage collection stations is the collective responsibility of all association members. (As a result, there is significant social pressure on residents to join the association – those who decline are widely seen as shirking their responsibilities and increasing their neighbors' burden.)

In Tsukuba, central, more developed, and more populated areas tend to have more apartments and collective housing and fewer neighborhood associations. Outlying, comparatively rural areas (whose residents also tend to be older) have a stronger tradition of neighborhood associations. This is part of the lingering division between original residents, 1970s-1990s newcomers, and the newest arrivals who moved to the city after the completion of the Tsukuba Express train service in 2005. In her study of Tsukuba's "pioneer housewives" who came to Tsukuba with their researcher husbands during Tsukuba's

²⁵ Because the name of the company is also the family name of the company's founder and president, the company name listed here is a pseudonym.

development as a “science city” in the 1970s and 1980s, Larzalere (2006, 120) notes that when “newcomer” families arrived in Tsukuba in the 1980s, they often felt unwelcome in or declined to join existing, *jimoto* (original resident) neighborhood associations. Instead, they frequently set up their own new, separate neighborhood associations. I found that most of the “new newcomers” I spoke to, who arrived in the 2000s-2010s, did not join a neighborhood association and many lived in areas that did not have an association at all. In these latter neighborhoods, the community waste work that was traditionally carried out by neighborhood association members was outsourced to private companies, financed by fees paid by each household in the neighborhood.

In the *jimoto* neighborhoods, most of which are facing challenges associated with an aging population, neighborhood association membership remains strong. In one outlying area of Tsukuba, Morinosato, the neighborhood association has a participation rate of over 90%. The association members inspect and clean the waste collection stations for their area (each block has between 15 and 75 households) on a rotating basis (*tōban seido*). Morinosato currently has 34 collection stations. In an interview, the head of the neighborhood association guessed that about 90% of the members who do the waste station management are women, and elderly women in particular: 39.15% of Morinosato residents are over the age of 65 (interview by the author, February 17, 2015).

Although most people in Morinosato sort their garbage correctly, the neighborhood regularly has problems with people putting out garbage the night before (rather than in the morning before 8:00), or on the wrong day. When people put out oversized garbage (*sodai gomi*) at the waste collection stations (rather than making an appointment and paying a fee to the city to have it collected), the neighborhood association either calls the city Waste Management Division to have it collected as illegally dumped waste (*fuhō tōki*), or has compensated volunteers (*yūshō borantia*) collect it and take it to the Clean Center. There are 16 volunteers; they are paid 2000 yen for 3 hours. These volunteers are also the ones who collect the garbage from elderly people who have requested assistance. When garbage has been put out on the wrong day (whether as a mistake, or on purpose as when the person is leaving to go on a long trip and doesn’t want to leave the garbage inside), first it is the responsibility of the person who made the mistake to correct it; if they don’t, the neighborhood association member whose turn it is to manage the waste station is supposed to take care of it, but doesn’t always, so sometimes the incorrect garbage is just left there until its collection day comes around. Sometimes the volunteers take this kind of garbage to the Clean Center.

The neighborhood association also organizes the collection of newspapers, which are sold to recyclers. The proceeds are used to run the children’s association (*kodomo kai*). The neighborhood association used to also collect and sell aluminum cans, but they stopped when the price of aluminum fell. In 2012, they experienced a problem with someone stealing the recyclables before they could be

collected, but the association strengthened the patrol, and the problem stopped (interview by the author, February 17, 2015).

One of the main concerns of the Morinosato neighborhood association is the lack of involvement by young people. The head of the association speculated that since young people work five days a week, they don't want to spend their weekend on neighborhood association activities, and as a result, association officers are mostly elderly people. Furthermore, although Tsukuba's population is growing, the influx is only to the central parts of the city; areas on the periphery have declining and aging populations (interview by the author, February 17, 2015). This certainly seemed to be the case among the younger Tsukuba residents I interviewed as well: most lived in more central areas and were not interested in joining a neighborhood association even if their area had one.

Waste Work in the Home

Tsukuba's separation regulations are fairly typical for a city of its size. The city provides a regular collection service for seven categories of household garbage; four additional categories have collection by appointment or drop-off at the city office or other locations. Trash that does not fall into these categories must be disposed of individually (for example, by paying a private waste disposal company to collect and process the waste). Each category of waste is collected on a designated day, and should be put out in the correct receptacle (i.e., burnable waste must be put into designated bags, while any type of plastic bag is acceptable for unburnable waste, cans, glass and PET bottles, while cardboard must be flattened and tied together with string). Table 3 shows Tsukuba's waste separation categories, along with examples for each category, method of disposal, and collection frequency.

Table 3. Waste separation categories in Tsukuba City

Category	Examples	Method of Disposal	Collection Frequency
Burnable garbage (<i>Moyaseru gomi</i>)	Kitchen scraps, plastic containers and packaging, rubber, CDs and videotape, small yard waste, styrofoam, leather items, wooden items, etc.	City's designated bag (20, 30, or 40 liters)	Twice per week
Cans (<i>Kan</i>)	Cans or tins for drinks, foods, or snacks	Transparent or half-transparent plastic bags (up to 40 liters) Wash out the cans before putting out	Twice per month
Glass containers (<i>Bin</i>)	Glass bottles for drinks, glass containers for food	Transparent or half-transparent plastic bags (up to 40 liters)	Twice per month

		1) Remove cap 2) Wash out inside	
Spray containers (<i>Supuree yōki</i>)	Spray containers	Transparent or half-transparent plastic bags (up to 40 liters) 1) Remove cap 2) Completely use contents 3) In a safe place far from open flames, make a hole	Twice per month
PET bottles (<i>Petto botoru</i>)	Plastic bottles for drinks or condiments (non-oil) with the PET mark	Transparent or half-transparent plastic bags (up to 40 liters) 1) Remove cap 2) Remove label 3) Wash out inside	Twice per month
Non-burnable garbage (<i>Moyasenai gomi</i>)	Ceramics or glassware, lightbulbs (non-LED), cookware, aluminum foil, pocket heater packs, rod-shaped items like metal bats or golf clubs (up to 150 cm), composite items of metal and plastic or small electrical appliances no more than 50 cm long, lighters (with gas removed) Broken ceramics, glassware, kitchen knives or scissors should be wrapped in paper and marked “dangerous” (<i>kiken</i>)	Transparent or half-transparent plastic bags (up to 40 liters)	Twice per month
Used paper and clothing (<i>Koshirui, koirui</i>)	Newspapers and fliers, magazines and books, cardboard (up to 1 m), paper cartons (wash, cut open and dry), clothing (clothes, wool curtains) Please cooperate with mixed paper collection Mixed paper: paper larger than business cards such as snack boxes, office paper, etc. Loose paper should be placed in a paper bag	Separate by type and tie with string (On rainy days, please put in a plastic bag)	Twice per month

Source: Tsukuba City Guide to Garbage Separation and Disposal (Gomi no wakekata, dashikata gaido) 2015.

Although these instructions may seem complicated to someone unfamiliar with Japanese garbage regulations, Tsukuba’s waste separation requirements (as of 2016) are relatively simple compared with those of other cities in Japan, primarily because plastic containers and packaging are considered burnable waste, and do not have to be cleaned and separated for recycling as they are in many other cities. When I asked informants what they thought of waste separation in Tsukuba, nearly all of them replied “It’s easy”

(*raku*), often comparing Tsukuba's lax requirements with more difficult separation regulations in other cities where they'd lived.

A calendar for garbage disposal, which also contains instructions for separation, is distributed to Tsukuba residents once per year, in March. Residents are instructed to put out their garbage before 8:00 AM on the designated day. Depending on the nature of the waste collection station, citizens may be told to put out garbage only in the morning on the designated day, or they may be allowed to start putting it out the night before. There is a wide range of different types of garbage collection stations in Tsukuba, from a section of the road covered by a net, to a metal container with a closeable lid, to a shed or room with a locked door. Because crows and other animals sometimes tear into garbage bags and create a mess, closeable containers, wire cages, or closed-off rooms are more popular among citizens. Apartment buildings typically have one collection station near the building for all residents to share, while detached houses share a neighborhood collection station. Because the collection station is sometimes far from a person's home, some households carry their garbage to the station by car, but for most people their designated collection station is within easy walking distance (interviews by the author, June 10, July 15, July 17, and July 22, 2015).

Since garbage collection is performed by many companies over a wide area, the time of collection can vary from neighborhood to neighborhood. Most of my informants reported that burnable garbage is collected from their stations in the morning, but one woman said the typical collection time in her area was 2:00 PM (so she usually put out the garbage around noon). The timing of garbage collection can have implications for the gendered division of labor in the home: the woman who told me she takes the garbage out at noon also mentioned that because of this timing, she only ever saw women in her neighborhood taking out the garbage (interview by the author, July 17, 2015). In other words, only housewives who could be home in the middle of the day were able to take the garbage out at the correct time. Another informant told me that while she herself was the one to take out her family's garbage early in the morning, there were "lots" of households where men were the ones to take out the garbage, on their way to work in the early morning. However, in her own household, she felt that it was her obligation to take out the garbage: "As for me, I was told by my mother, 'It's not good to let a man take out the garbage on his way to work,' so that's why I take out the garbage myself" (interview by the author, July 17, 2015). In fact, of the eleven informants I interviewed who were married, ten indicated that the woman was primarily responsible for taking care of waste in the home, including taking it out for collection. The exception was a young man in his twenties whose wife wasn't present during the interview and home visit; he stated that he and his wife divided waste-related chores more or less evenly, "whoever has the day off" (interview by the author, February 15, 2016). This exception should probably not be taken as an indication of changing gender roles among the younger generation, however; another young couple in

their twenties answered my questions together, and the wife indicated that she did the vast majority of waste work around the home (interview by the author, March 1, 2016).

Household Waste Work and Daily Life

The most obvious impact of waste separation requirements is the increase in housework it requires. As previously mentioned, this work largely falls on the shoulders of women in Japan, whether they are full-time housewives or not (Matsumoto 2011). This is also the case in Tsukuba. In a survey of one neighborhood of 1318 households in Tsukuba carried out in 2013, Kojima et al. (2015, 120) found that women were primarily responsible for managing household waste in 71.5% of households. Similarly, in the in-depth interviews I carried out with Tsukuba residents, I found that women were responsible for the majority of household waste work in twelve of the fourteen households I spoke with.

Related to the increased physical labor of waste sorting is the mental labor of keeping track of the garbage disposal (*gomi dashi*) requirements – which type of garbage goes out on which day, what time the garbage needs to be taken out, and how to fit *gomi dashi* into one’s daily schedule. This mental labor is in many cases more arduous than the physical tasks of washing, cutting, separating, etc., but is typically overlooked in studies of household waste work. Most of the Tsukuba residents I interviewed kept their garbage disposal calendar on their refrigerator, where they could consult it daily to check which type of garbage needed to be taken out next.



A garbage disposal calendar affixed to the side of the refrigerator of a Tsukuba resident (February 2, 2016).

Additionally, waste separation requirements take physical form in the spatial arrangements residents make in their homes to accommodate different categories of garbage. Because some types of waste – cans, PET bottles, glass, etc. – are only collected twice a month, they must be stored for up to two weeks before they can be put out for collection. (Some apartment buildings have waste storage areas where recyclables can be placed at any time, but most areas simply have a waste collection station where only the type of waste to be collected on that day may be placed.) My informants demonstrated a wide variety of strategies for storing waste, ranging from separate labeled bins for each type of waste neatly stacked in the kitchen area, to three or four large plastic bags stored at the bottom of a closet or next to the door.



A two-tiered garbage bin for separated recyclables in the apartment of a Tsukuba resident (February 15, 2016).

Importantly, not one of my informants indicated that they found waste-related housework to be a burden or thought that it impacted their life negatively, especially since the separation requirements in Tsukuba were not very strict. Instead, they regarded it simply as a duty, or an expected part of life. Almost all of them followed the waste separation requirements correctly as a matter of course; only one person I interviewed, a single man in his thirties, admitted that he wasn't really concerned about whether he was sorting the garbage correctly. The rest of my informants, both single women and married couples, explained their typical garbage management strategies matter-of-factly. Unlike the housewives in Ben-Ari's (1990) study, most of the women I interviewed in Tsukuba did not seem particularly proud of their garbage sorting expertise, instead regarding their activities as entirely typical and expected. Many of them, when asked if they would be willing to show me their homes and discuss how they managed their household waste, demurred with "Well, what I do is nothing special, will it really be useful?" or the like.

(However, it is possible that those who agreed to my interviews were more confident about their waste arrangements than average; there were a few people I invited or whom my other informants invited to be interviewed who declined to participate because they were not comfortable showing off their homes.)

There were two exceptions, households with exceptional household waste management practices who were justifiably proud of the fact. The first of these was the Arakawa household, a middle-aged couple living in a detached house in the southern part of Tsukuba city. Their house was surrounded by an unusually large area of open land, which they used for a large garden. They prided themselves on having a very eco-friendly household: they composted kitchen waste to use as fertilizer, and collected rainwater in large buckets outside to use to water their garden. Although both members of the couple were enthusiastic about their environmental activities, Mrs. Arakawa told me she was exclusively responsible for waste-related chores in their home. (She, like several other informants, also immediately mentioned that she often sees men taking out the garbage in her neighborhood as well.)

The other was Shōno Takako, a 72-year-old woman who became my key informant as well as a good friend. She was the founder of the volunteer initiative Tsukuba Recycle Market (Tsukuba Risaikuru Maaketto), as well as the main organizer of the small recycle shop and non-profit organization Creative Recycle (NPO Hōjin Tsukuba Kurieitibu Risaikuru) (see Chapter 4). She was very concerned about waste, and not only through her volunteer activities. Her home was also a testament to her *mottainai* (don't waste) sensibilities. She made every effort to recycle anything that could be recycled – saving the caps of plastic bottles to put in the separate collection bin at the grocery store rather than put them in the burnable waste with other plastics, rinsing and drying Styrofoam trays to recycle at the grocery store, and most notably, rinsing and drying used plastic wrap to be reused two or three more times. In many ways, Mrs. Shōno reminded me of the Mottainai Ba-san (No-Waste Grandma) character from Shinju Mariko's popular children's book series (see Siniawer 2014). Mrs. Shōno was an energetic and formidable woman who would tolerate neither waste nor nonsense in her surroundings.

In contrast, another informant, Nakano Shunsuke, a researcher in his 30s living alone in a small apartment, told me frankly that he doesn't care about doing the waste separation properly. He had plastic bags in a closet or by the door for glass and cans, but just about everything else he put into the 40 liter burnable garbage bag. Mr. Nakano, the only single man who participated in my household interviews, was also the only one who did not at least try to appear as though he cared about following the separation rules.

Most of the rest of my informants fell somewhere between these extremes, doing their best to follow the separation rules but not going out of their way to recycle everything. Murata Emiko, a housewife in her late 30s, is a good example of this. The Murata family lives in a detached house in a modern residential neighborhood outside the city center. The houses in the neighborhood all looked very

similar, suggesting a planned housing development. The living room and kitchen area of the house, where I interviewed Mrs. Murata, was neat and well-appointed. Mr. Murata works for a German company, and Mrs. Murata is a full-time housewife (*senkyō shufu*). They have three school-aged children, and moved to Tsukuba from Chiba in 2010 to be closer to Mrs. Murata's family in Tsuchiura, a nearby city.

Compared to the cities she'd lived in previously in Chiba and Tokyo prefectures, Mrs. Murata said, Tsukuba's waste separation rules were fairly similar. She thought the separation rules in Tsukuba were very easy (*raku*), almost as if there were no separation at all. This sentiment was repeated by most of my informants. In Tsukuba, unlike in many other Japanese cities, plastic containers do not have to be washed and separated, but can simply be tossed into the burnable garbage, waste separation is largely a simple matter of tossing different materials into separate bins or bags. (When I mentioned my research to friends and acquaintances living outside Tsukuba, many of them mentioned separating plastic waste as the most burdensome aspect of their city's waste separation rules.)

Mrs. Murata gave me a brief tour of how waste was managed in her home. The first stop was the kitchen: in the corner, next to the back door, was a large, beige plastic waste bin, which she explained was for burnable garbage. To the left were paper bags for newspapers and mixed paper waste. She explained that she receives the bag for newspapers from the newspaper companies, and she received the bag for mixed paper from her child's school. (There was also a large bag of rice in this space.) Hanging on the door handle were three small plastic bags, for non-burnable waste, glass, and aluminum or steel cans. Bottles and cans would be rinsed out and dried before being placed in the bags. She explained that normally, the latter three were placed in a storage bin outside (she opened the door to show me), but for now, because it might snow (in early February), and because the family didn't produce much of these types of waste, she just kept them in the small bags inside.



The waste corner in the Murata family's kitchen (February 2, 2016).

Noticing a net in her sink drain, I asked her how she deals with kitchen waste (*nama gomi*). She explained that while she is cooking, she just piles everything up in the sink together; later, she puts it all in a small plastic bag and then puts it in the large waste bin in the corner. This, too, was typical of my informants: almost all of them used sink nets, either over a separate drainable container in the corner of the sink, or placed over the removable strainer inside the drain, as in Mrs. Murata's kitchen. Japanese sinks are designed with a removable grate for easy cleaning and to prevent waste matter, typically from food preparation, from going down the drain. The disposable nets, placed over the drain, make it easy to scoop up the organic waste from food preparation or scraped off dishes and place it into the burnable waste (or first into a small plastic bag, as in Mrs. Murata's case; several of my informants also did this, in order to reduce the smell from raw kitchen waste).



The sink in the Murata household: a disposable net covers the drain (February 2, 2016).

Mrs. Murata usually takes out the garbage at 6:00 a.m. – she takes it down the street to the neighborhood waste bins, then picks up her newspaper before going back in. She takes out burnable garbage twice a week (both of the collection days), usually in 40-liter bags, but sometimes in 30 liter bags if it's less than usual. She said that her burnable garbage is typically composed of kitchen waste, tissues, garbage from the vacuum cleaner, and food packaging. She takes out unburnable garbage and recyclables when they've accumulated sufficiently – usually about once a month.

Mrs. Murata told me that her neighborhood, being new, did not have a neighborhood association (which in older neighborhoods often take on the task of monitoring and cleaning waste collection stations). Instead, the collection sites, as well as street cleaning, were managed by a management association (*kanri kumiai*). While we were outside looking at the collection station, she pointed out a man cleaning the street a few houses down and explained that he was sent by the association.

The garbage collection station for Mrs. Murata's neighborhood was located a few houses down the street from hers. It consisted of two large metal containers with lids that lifted, and which could be locked, although neither was. The left container had a sign warning people outside the neighborhood not to deposit garbage there; the right container had the collection schedule pasted on it. Both containers were empty.



The waste collection containers in Mrs. Murata's neighborhood (February 2, 2016).

This kind of metal container was fairly common for waste stations in Tsukuba; other types included enclosed structures with lockable doors, wire cages, or simply an open concrete storage space with a net covering it. The net is necessary but not in all cases sufficient to stop wild animals, especially crows, from getting at the garbage, which is why most neighborhoods opt for a metal box or cage. Although the locations for waste collection stations must be approved by the city, the city is not responsible for their construction or upkeep. As Mrs. Murata explained, the households in her neighborhood paid a fee to a company to manage the waste collection stations, and it is likely that similar fees paid for the containers to be installed in the first place. In other neighborhoods, these tasks fall to the neighborhood association. In one neighborhood in an outlying area of the city, the head of the neighborhood association told me his group had struggled to raise money to upgrade their waste collection stations from nets to metal cages to prevent crow problems; although they received a small subsidy from the city for this purpose, the majority of the cost was paid from membership fees. At the time of my interview in 2015, the neighborhood association had replaced all but seven of thirty-four collection stations with metal cages (interview by the author, February 17, 2015).



A wooden cage waste collection station in an outlying area of Tsukuba (February 11, 2015).



A metal cage waste collection station in a central area of Tsukuba (February 10, 2016).



A net-covered concrete waste collection station in an outlying area of Tsukuba (March 10, 2016).

Overall, Mrs. Murata made it clear that she didn't find household waste work to be burdensome at all and said she didn't experience much inconvenience (*fubensa*): "In the regular garbage, there's hardly

any separation” (interview by the author, February 2, 2016). For Mrs. Murata, as for most Tsukuba residents I interviewed, waste separation work was simply part of their daily routine, something to be done as a matter of course. Household waste separation, and the reasons it might be required by the city, was not something most of my informants thought much about.

Waste, Gender, and National Belonging

During the post-war economic boom, labor and family patterns in Japan developed into a characteristic system, organized around the male and female “archetypes” of the salaryman and the full-time housewife (Goldstein-Gidoni 2012, 2017; Ogasawara 1998; Osawa 2002). These ideals are related to issues of national identity and belonging, including citizenship. Mackie (2002, 203) argues that “the archetypal citizen in the modern Japanese political system is a male, heterosexual, able-bodied, fertile, white-collar worker,” and that this model of the ideal citizen limits in practice the access of those with marginalized identities to full citizenship. In Japan, the social, economic, and political order is based on “the assumption that most people will live in heterosexual nuclear families with a male breadwinner and female primary caregiver” (Mackie 2002, 206). Ito (2005, 54) notes that the family is in fact constitutive of Japan’s, and indeed any, “citizenship regime.”

Western feminist scholarship on citizenship has frequently pointed out that “the public and private do not exist as discrete, separate spheres but rather exist in an interactive, overlapping relationship by demonstrating that ... men’s public citizenship relies on being supported by the care and domestic work performed by female non- or partial citizens in the private sphere” (Munday 2009, 256). These scholars emphasize that “universalist” European and North American models of citizenship elide or ignore the unpaid private care work, typically performed by women, that allows men to exercise their full citizenship rights in the public sphere. They have therefore proposed a variety of new models of citizenship that take gender differences and other differences arising from marginalized identities into account (Siim 2000, Lister 1990).

I would argue that in Japan, however, rather than a “universal” model of citizenship that assumes a male citizen and ignores women, in the postwar period the Japanese state adopted an *explicitly* gendered citizenship regime, which advocated different ideals of citizenship for men and women. In Japan the role of the full-time housewife was valorized and held up as the ultimate aspiration for women, and remains the standard today (Goldstein-Gidoni 2017).

LeBlanc (1999) makes the important observation that the role of housewife is in fact a public, not a private, role in Japan. She points out that the construction of the ideal female citizen, as promoted by the state and social elites in the good wife, wise mother (*ryōsai kenbo*) ideology, positioned women’s role in

the home as part of their service to the state. Similarly, women's increasing participation in certain areas of public life beginning in the 1920s and 30s, which were discussed in Chapters 1 and 2, was predicated on their roles as housewives: "Larger roles for women in local government were justified on the basis of the connection between the business of local government – garbage disposal, poor relief and health policy, for example – and the experience that women gained through the management of their homes. ... The 'wife and mother' components of housewifery are thus markers of a *public* role for women, not their exclusion from the public sphere" (LeBlanc 1999, 67-68, emphasis in original).

It is important to emphasize that not only the "wife and mother" aspect, but also the performance of housework itself, is a component of the public housewife role. Although LeBlanc's work does not focus in detail on housework itself, the responses she quotes from her informants tend to indicate that housework is in fact the core of the housewife identity:

When I asked an informant if she considered herself to be a housewife, she often hesitated before replying, and the reply would usually go something like this: "I guess I am a housewife because I am responsible for the cooking and the cleaning and the home." But if I asked her if she were a typical housewife ... she would be more likely to demur. She could not be considered a "housewife-like housewife" because she failed to devote herself fully to things like cooking and cleaning that were a housewife's mark, my informant would explain. (LeBlanc 1999, 42)

Most of a housewife's domestic work is visible only to her family (and, as many of LeBlanc's housewife informants complained, undervalued by society). However, one form of housework does move outside the home and into public space: household waste.

Managing household waste is perhaps the most visible form of housework as part of the public role of housewife. In Japan, garbage disposal is a public and highly visible activity because in most municipalities garbage is collected from a communal pickup site and must be disposed of in transparent bags. In some locations, residents are requested or required to write their family names on the bags, making garbage disposal even less anonymous. It is often pointed out that garbage disposal in Japan is a public activity that can lead to social sanction. Ben-Ari (1990) explicitly links garbage disposal to housewives' identities. In describing the new garbage disposal rules implemented in the town of Otsu in the 1980s, he highlights city officials' apparent assumption that, as "trash-related matters belong almost exclusively to the domain of women," Otsu's "professional housewives" would conform to the new rules as part of their "self-conception" as wives and mothers: "That is, city officials expected the new arrangements – involving the public presentation of the household and the kitchen – to become an aspect of housewives' self-valuation and valuation by others" (Ben-Ari 1990, 484).

Proper management of household waste is therefore one aspect of the public role of housewife. It is also a conspicuous signal of community belonging. Non-Japanese who have lived in Japan are likely keenly aware of the widespread stereotype that foreigners don't know how to separate garbage properly, but because each municipality in Japan creates its own regulations for garbage separation, even Japanese newly arrived in a particular community may be identified as outsiders through garbage separation mistakes. On the other hand, by properly sorting their garbage, residents can communicate that they understand and respect the rules of their community.

In Tsukuba, this aspect of waste work as community belonging was more important in the older *jimoto* neighborhoods than in newer residential areas populated by newcomers. These older areas were more likely to have established neighborhood associations with high membership rates, and garbage pickup stations managed by neighborhood association members. In contrast, the areas where newcomers to Tsukuba lived were more likely to have concentrated housing in apartment buildings or close-packed newly constructed housing complexes; the garbage pickup stations in such areas were more likely to be managed by a contracted private company, for which all households in the neighborhood or building paid a fee. Even in these areas, however, the housewives I spoke to indicated that they were careful to follow the waste separation rules. Although the way they manage their garbage would not be quite as visible to their neighbors as in older neighborhoods where each household takes turns overseeing and tidying the community waste pickup area, housewives in newer neighborhoods can perhaps still expect that their garbage, and the time and manner with which they dispose of it, might be observed by their neighbors. It is therefore unsurprising that even housewives in newer, ostensibly more "private," neighborhoods, would take care to dispose of their garbage properly in order to demonstrate their diligence as a housewife and their desire to maintain a clean and prosperous community.

To the extent that the housewife is seen as the ideal form of Japanese womanhood (Goldstein-Gidoni 2017), performing the tasks of the housewife, including household chores like waste separation, can be seen as an expression of national belonging or citizenship for Japanese women. Most of my informants, almost all of whom were women, stated that they performed waste separation work in the home as a matter of course, and tried to do it well simply because it was expected of them. The exception – the only person I interviewed who said that he did not much care if he separated the garbage properly or not – was a young, single man. Men, who derive their national belonging through engaging in paid work, may neglect their household chores without shame; their contribution to society (and perhaps also their gendered sense of self-worth) lies in their employment. For women, on the other hand, maintaining the home and performing household tasks well is a requirement for full membership in the local and national community, whether they are married or not, whether they work outside the home or not. In this way, waste work in particular – because it involves a performance of household tasks, namely proper waste

separation, out of the home in view of the whole neighborhood – is significant as a public performance of the “housewife” role, and an expression of national belonging for Japanese women.

Chapter 4

Waste Reduction, Citizenship, and the Housewife Identity: Recycling Volunteers in Tsukuba

“This feeling that, because it’s *mottainai* [wasteful], we have to do something – if this feeling went away, I think this [recycling] business would also disappear.”

Shōno Takako, recycling volunteer (interview by the author, April 1, 2015)

As discussed in the previous chapter, the housewife identity can be viewed as a marker of both community and national belonging for Japanese women. Although many of the housewife’s traditional tasks are performed in private, inside the home, some of them take her into the public view. Properly separating household waste and putting it out at the proper time, often at the same time as other housewives, is one such public expression of the housewife role. Another is engaging in volunteer activities.

Volunteering in Japan tends to be performed by women, particularly those who identify as housewives. Due to the nature of Japanese working culture, which encourages excessive working hours among full-time employees, housewives are more likely than men or women working full-time to have the free time to engage in volunteer activities. According to a government survey carried out by the National Social Welfare Association in 1995, 80 percent of volunteer group members are women (Nakano 2005, 2). The vast majority of volunteers in Japan are middle-aged housewives and men of retirement age. A government survey in 1996 found that volunteer rates were highest among women in their 30s, at 35%; for men, the highest rates of volunteering were among men in their 60s, at 31% (Nakano 2005, 3).

Most volunteer activities in Japan tend to take place at the grassroots, community level. Traditional community organizations such as neighborhood associations and local women’s and children’s organizations have maintained relatively high membership rates, estimated to be over 90% in most areas (Haddad 2007). This was also true of the neighborhood association I visited in an outlying area of Tsukuba (see Chapter 3). In addition to traditional membership organizations like neighborhood associations, housewives also tend to belong to grassroots advocacy groups focused on issues related to

motherhood and the housewife identity: parent-teacher associations, consumer safety groups, food co-ops, and local environmental groups. Noguchi (1992) notes that in the early 1990s, the prevalence of housewives in grassroots environmental group was notable: “The environmental movement in Japan [...] has tended to remain in a grass-roots stage, with virtually no large, well-financed organizations acting on a national level. [...] What is perhaps most striking about this vast number of tiny organizations is that so many are run not out of offices by paid professionals but out of homes by volunteer housewives. [...] In fact, when Suda Harumi, the head of the staff at the [National Center for Citizens’ Movements], was contacted for information on environmental groups led by housewives, his response was, ‘Oh, that’s easy. Almost all environmental groups are run by housewives’” (Noguchi 1992, 339-340).

Volunteer groups related to waste and recycling are not uncommon in Japan. As early as 1990, the Japan Recycling Citizens’ Center (Nippon Recycling Undō Shimin no Kai), “a loose network of recycling groups,” had as many as 40,000 supporters, and included “many local groups that recycle a variety of materials from cooking oil to used batteries and milk cartons” (Holliman 1990, 285). It is difficult to estimate the exact number of community recycling organizations in Japan today, especially because many, including the Tsukuba Recycle Market (Tsukuba Risaikuru Maaketto), which will be discussed in this chapter, are not registered non-profit organizations or indeed officially registered in any way. This type of community-level, unofficial volunteering unrelated to a national organization or policy aim is characteristic of the type of public activism undertaken by housewives that LeBlanc terms “bicycle citizenship:” “In ruling politics out of their consideration of possible solutions to social problems, volunteers shaped what might have been citizenship into something else – something that looked like energetic citizenship in nearly every aspect except its rejection of political routes to social change – bicycle citizenship” (LeBlanc 1999, 91).

From 2015-2016, I carried out ethnographic fieldwork with two volunteer waste-reduction organizations in Tsukuba, interviewing the volunteers and participating in the groups’ volunteer activities. As noted in Chapter 3, Tsukuba is relatively unique among Japanese cities as it was established from the top down by the national government as a planned “science city” for governmental and private research centers. This situation created tension between the original residents of the towns that merged to form the new city and the middle-class professional newcomers who migrated there with their research centers. It also caused loneliness and isolation for the families of the (mostly male) researchers, who were separated from their preexisting networks in Tokyo or other cities and forced to start anew. In her ethnographic study of the “pioneer housewives” who came to Tsukuba in the 1970s and 1980s, Larzalere (2006) observes that “The urban researchers’ wives who first came to Tsukuba were not prepared to live in the remote outreaches of the Ibaraki countryside. Unlike their researcher husbands who had a readymade workplace with an established network of colleagues, the women arrived with little connection to the

locality. For the most part, they did not know each other or their Ibaraki neighbors. The housewives found themselves isolated and out of place in a new town with an infrastructure still under construction” (Larzalere 2006, 81).

The feelings of loneliness, isolation, and being “out-of-place” (*bachigai*) sometimes manifested as physical symptoms, especially stomach pains, which prompted many to seek medical advice. This feeling of malaise was termed “Tsukuba syndrome” by doctors at Tsukuba Hospital (Larzalere 2006, 97). There was a spate of suicides among both researchers and housewives; by 1980, “the suicide rate among Tsukuba researchers rose to the highest in the nation” (Hamilton 1992, 572). Larzalere recounts one of her housewife informant’s experience with “Tsukuba syndrome:”

I have been here for six years. I came here from Tokyo in 1983. When I first came to Tsukuba I felt very lonely because the city was very inconvenient. And, I didn’t have any friends here. I had never experienced living in an apartment-style group of buildings. I felt very lonely and got sick. Every morning I felt very bad. I didn’t get up very early in the morning. At night, I used to cry a lot and couldn’t sleep. Later I felt so bad one morning that I went to the hospital. The doctor said, “You have the Tsukuba-syndrome.” He told me that other people had similar problems as myself and had gotten sick like me. I felt like that for two or three months. Later I got a job and made many friends doing interesting work. First, I worked at a part-time job in a mechanical engineering library. Just doing office work photocopying things and serving tea. After that, I got a job at the United States Pavilion. That was very interesting. But, at the same time, I got pregnant. So I had a hard time dealing with the job. But I had a good experience there. [...] I think that getting a job and meeting people helped to make me better. (Larzalere 2006, 97-98)

Larzalere notes that membership in groups, especially semi-mandatory membership groups like parent-teacher associations and resident or neighborhood associations, helped Tsukuba women make contacts and eventually form groups or associations focused on their particular interests. She describes groups created by women to explore their shared interests or hobbies – an English conversation circle, a storytelling club – as well as volunteer groups in which women “are motivated by their desire to better Japanese society” (Larzalere 2006, 111). Membership in these groups allowed women to experience a sense of community and shared purpose, as well as establish a role for themselves within the context of the group and express their individual identities.

This chapter will focus on two such volunteer groups created by housewives in Tsukuba, both of them founded out of a sense of housewives’ responsibility for reducing waste and promoting recycling. The first, NPO Tsukuba Creative Recycle (NPO Hōjin Tsukuba Kurieitibu Risaikuru), is a non-profit

organization that operates a “recycle shop” where people can donate unwanted goods which are then sold at a low price. The second, Tsukuba Recycle Market, is a flea-market-style event held four times a year in which people can directly sell their unwanted goods to others who might find them useful. Both groups were based on the idea that ordinary people, especially housewives, can take small actions in their everyday lives to reduce waste.

The founders of both groups framed their activities around their housewife identity: although the garbage problem was a large-scale municipal problem, it was also one directly related to the housewife role, and one which even small actions undertaken by housewives could help to solve. Shōno Takako, the founder of the Tsukuba Recycle Market, recalled that after seeing Tsukuba’s garbage problem firsthand through a visit to the city’s sanitation facilities, asked herself “What can I do on my own?” to solve the problem, and came up with the idea for housewives’ group recycle market. Similarly, Terada Kumiko, the founder of Tsukuba Creative Recycle, decided to do something about Tsukuba’s garbage problem after learning about the issue, and began a recycling club with her friends, which eventually evolved into a large-scale non-profit organization operating several recycle shops in Tsukuba.

In the following sections, I will describe the history and current operations of these organizations, and analyze how the groups’ housewife founders and volunteers used waste reduction and recycling activities as a social outlet and source of community that also reinforced their identity as housewives.

Creative Recycle: Tsukuba’s Volunteer Recycle Shop

The first example of this type of community volunteer organization founded and run by women I will examine in this chapter is Tsukuba Creative Recycle, a non-profit organization based in Tsukuba. Its principal activity is operating a second-hand “recycle shop;” it also donates clothes and other items to those in need in Japan and overseas. The organization is one of only a few non-profit recycle shops in Tsukuba (other recycle shops, such as the large chain stores Wonder Rex and Off House, are run as for-profit companies).

Creative Recycle has existed in various forms since the early 1990s, and was officially registered as an NPO in 2003. Currently, the organization runs a single recycle shop, located in Tsukuba’s Chūō Park in a building owned by the city which the group, as an NPO, is able to use rent-free. The shop receives donations of clothes and other used household goods and sells them at extremely low prices. The shop, which is open for only 2.5 hours five days a week, is staffed by volunteers, all of whom are women (although there were also men volunteers in previous years).



Map showing the location of Tsukuba Creative Recycle in relation to Tsukuba Station (Google Maps 2017).



The outside entrance to Tsukuba Creative Recycle's shop in Chūō Park (March 25, 2015).

The history of Creative Recycle is deeply intertwined with the history of the city of Tsukuba itself. As discussed in Chapter 3, in 1963 the national government announced its plan to create “Tsukuba Science City,” a planned city that would house the country’s burgeoning national research institutions, which were occupying valuable space in the rapidly expanding capital²⁶. The site chosen seemed ideal for the purpose: a relatively unpopulated, relatively flat area close enough to Tokyo to be convenient but well outside of the metropolitan area and its growing urban sprawl. The first institution moved to Tsukuba in 1972, followed by dozens more over the next two decades.

With the institutions came researchers and bureaucrats, accompanied by their families. Miyamoto Yōko, a current Creative Recycle volunteer who came to Tsukuba when her husband’s research institute was transferred, explained that in that early period, Tsukuba could hardly be called a town, much less a “science city:” “There were no shops, there was nothing; the people who moved here then had to take a bus to Tsuchiura [a city located about 12 km from Tsukuba] just to go shopping. Here [in Tsukuba] there was *nothing*. It was just a place in the mountains” (interview by the author, February 16, 2016). For new residents, many of whom came from bustling Tokyo, Tsukuba’s lack of development was shocking and often disappointing. Mrs. Miyamoto recalled that there was a spate of suicides in those early years (“Leaving the city and ending up in the countryside, it’s lonely... Some people couldn’t accept that environment, you know”). Others, however, turned their energies toward improving their new home.

The nature of employment at Japanese government institutions means that employees are frequently transferred to other locations. The establishment of the University of Tsukuba and other universities in the 1970s and 80s, with the influx and departure of students every spring, increased the number of people whose residence in Tsukuba could be considered transitory. Terada Kumiko, the wife of a public employee at a research institute affiliated with the Ministry of Education, Culture, Sports, Science and Technology (Monbukagakushō), noticed that large amounts of perfectly good things were being thrown out when Tsukuba residents moved away, and resolved to do something about it.

Mrs. Terada, described by those who knew her as a woman of rare talent and drive, moved to Tsukuba in the 1970s during the earliest wave of institution transfers and immediately began trying to better her surroundings. She started a co-op, personally driving to pick up food from farms and shops and delivering it to members, and was involved in a wide variety of volunteer activities. When she noticed Tsukuba’s garbage issue in the 1990s, she and two friends organized a discussion group to decide what to do about the issue. They began organizing a “recycle plaza” – a place for people to sell and buy used items that might otherwise be thrown away – once a month in a public park. This group became the

²⁶ According to an explanatory pamphlet published by the Ibaraki Prefectural Government, the purpose of the new science city was “reducing congestion in Tokyo, promoting science and technology, and enhancing higher education” (Ibaraki Prefectural Government 2013).

Recycling Promotion Assembly (Risaikuru Suishin Kaigi), and eventually NPO Creative Recycle (interview by the author, February 16, 2016).

Kawaguchi Setsuko, a volunteer who was involved in the group from its early days, said that back then, they sold their own unwanted things, and donated the profits to an international education fund. She remembered that they would simply load all the things into their bicycle baskets and take them to the park, where they simply set items down on a plastic tarp to sell to passersby. In the summer they would set up a tent for shade. The group started out with about 8 or 10 members, but grew quickly as curious housewives stopped by to look at the items and were persuaded to join the movement. Mrs. Miyamoto, who has been volunteering with Creative Recycle for over 20 years, first learned about the organization this way. As more and more people, mostly housewives, got involved, Mrs. Terada moved the “recycle plaza” to her own house, holding it on the veranda. Mrs. Miyamoto estimates they had about 15-16 dedicated volunteers then, and according to an official Creative Recycle pamphlet, by January 1998, a year after the discussion group first started, they had gathered 108 signatures on a petition for the city government to establish a Recycling Department. As the size and popularity of the group’s recycling plazas grew, they decided to establish a more permanent location. They also stopped donating their proceeds to the education fund, and began to focus on supporting their own recycling activities (interview by the author, February 6, 2016).

In October 1998, the group (at this time still known as the Recycling Promotion Assembly) opened its first permanent recycle plaza, called the Numasaki Workshop (the building was located in Tsukuba’s Numasaki neighborhood), in a building that used to be a kindergarten but had been closed due to a lack of students. They received a subsidy from the Tsukuba city government to rent the building, which was extremely spacious. According to Mrs. Miyamoto, having so much space and not utilizing it to the fullest would have been *mottainai* (wasteful), so they began accepting donations not only of clothes and small items, which they had been accepting and selling at the temporary recycle plazas, but also furniture, bicycles, and large household appliances such as refrigerators and washing machines. They rented a truck once a month to transport large donations. The shop was open six days a week from 10:00 to 16:00; there were about 9 volunteers who worked in the shop then, five men (retirees) and four women (housewives). The volunteers were paid about 600 yen per hour. Because the shop was able to sell larger, more expensive items (even if at a considerable discount compared to buying the items new or from a for-profit recycle shop), the organization was able to afford the rent of the Numasaki Workshop building, the cost of renting a truck every month, shipping excess items overseas as charitable donations, and compensating its volunteers for their time.

In 2003, the group went through the somewhat arduous process of registering as an official non-profit organization. At that time, Mrs. Kawaguchi explained, NPOs were very trendy (*hayatta*) and the

Recycling Promotion Assembly succumbed to the allure, becoming the Registered NPO Tsukuba Creative Recycle (NPO Hōjin Tsukuba Kurieitibu Risaikuru). This transition meant that the organization would now have to pay taxes to the municipal and prefectural governments totaling about 70,000 yen per year, but also enabled them to qualify for certain benefits (interview by the author, February 6, 2016).

Capitalizing on its continued success and popularity, in 2004 the group opened a second location called Namiki Plaza. The Namiki location was also quite large, so they could continue accepting and selling large items; at this time, Namiki was just a secondary location, and only 2 volunteers worked there. In 2008, the Numasaki Workshop closed (the space was needed for a kindergarten once again), and after an extended closing sale, Creative Recycle's main operations were transferred to Namiki Plaza.

This was a turbulent time for the organization. Mrs. Terada, the driving force behind Creative Recycle, passed away at the age of 68; others stepped in to make sure the group could continue its work. Yoshida Keiko, a Tsukuba housewife who previously hadn't been involved (partly due to personal differences with Mrs. Terada), took on an active role: she created a website for the group, which helped substantially in attracting customers to Namiki Plaza's somewhat remote location, and led the group in participating in city-wide events like Earth Day. They also held activities like English lessons and arts and crafts workshops. When Mrs. Yoshida moved away from Tsukuba a few years later, these activities fell by the wayside as other volunteers did not have the energy or interest to continue them (interview by the author, February 16, 2016).

During the time that Namiki Plaza was the group's main location, the Home Appliance Recycling Law (Kaden Risaikuru Hō), a national law regulating the recycling of large household appliances, came into effect. Disposal of used refrigerators, washing machines, televisions, and air conditioners now had to be specially arranged through electronic companies and would incur a fee. As the disposal cost would be too high if the items failed to sell, Creative Recycle stopped accepting donations of large household appliances. In 2005, the city of Tsukuba had started charging a fee for the disposal of oversize waste of any kind, so the group also stopped accepting furniture and other large items.

These two policies together pushed Creative Recycle towards financial decline. Most of their income had come from these more expensive, large items; clothes and knick-knacks being sold for 100 yen or less could not compare. By 2010, the group could no longer afford to pay the rent for Namiki Plaza, and moved to a cheaper location at Ue no Shitsu. Despite being tens of thousands of yen cheaper per month, this new location also proved to be unaffordable, and at the end of 2010 Creative Recycle moved to its current location in the Chūō Park Rest House. This building is owned by the city, and the organization is able to occupy it rent-free due to its NPO status (interview by the author, February 6, 2016).

From 2011 until the present, the shop's opening hours have been 13:00 to 15:30, five days a week. Typically, only one or two volunteers staff the shop. Unlike in the Numasaki and Namiki days, the organization can no longer afford to pay volunteers; currently volunteers receive compensation for transportation costs only (and in months when sales are low, they may not even receive this). There are now five or six volunteers who staff the shop on a rotating basis. Mrs. Miyamoto, who has been involved in Creative Recycle almost since its inception, expressed doubt about its future viability, as most of the volunteers, like her, are in their 60s and 70s: "I don't know how long we can do this, you know? ... The others and I, we're not so young... In order to continue, if young people don't come..." (interview by the author, February 16, 2016). Currently, the youngest volunteer is Kaneda Mayumi, a housewife in her late forties.

Fieldwork at Creative Recycle

I carried out interviews with the volunteers and participant-observation fieldwork as a volunteer with Creative Recycle from March-April 2015 and January-February 2016. (As in the previous chapters, all names of informants and volunteers in this chapter are pseudonyms.) I was introduced to Creative Recycle through my observation of the Tsukuba City Waste Reduction Promotion Committee (Tsukubashi Ippan Haikibutsu Genryō tō Suishin Shingikai) in March 2015. A senior researcher at the National Institute for Environmental Studies, where I was based for my Tsukuba fieldwork from January to August 2015, was a member of the committee, and kindly arranged for me to observe one of their meetings and introduced me to each of the committee members. The committee members were representatives of various organizations or businesses with expertise or an interest in Tsukuba's waste management. One of these was Shōno Takako, the representative of NPO Tsukuba Creative Recycle, one of only three women on the seventeen-member committee. (One of the other women was a representative of a different citizens' group, and the third was a representative for a local company.) I contacted Mrs. Shōno after the committee meeting, and she agreed to let me interview her and invited me to come observe the recycle shop the following week. Mrs. Shōno, an energetic and outgoing septuagenarian, became my most enthusiastic and helpful informant. With her support, I was able to observe the recycle shop on multiple occasions, interview the staff, and become involved in the organization's activities.

I first visited Creative Recycle's shop in Chūō Park on March 25, 2015, after meeting Mrs. Shōno at the committee meeting and contacting her by email. Saying she wasn't sure if I'd be able to find it on my own, Mrs. Shōno met me at the city library, also located in the park, and guided me to Creative Recycle. The shop is located in a large concrete building at the edge of a pond, and is approached via a long walkway dividing the pond in two. Handwritten signs identifying the shop as NPO Tsukuba Creative

Recycle and explaining its purpose are displayed in the windows, which also reveal the shop's secondhand goods.

Mrs. Shōno led me through an open door into the dim shop. My first impression was of extreme clutter: haphazardly arranged objects covered every surface, including the counter with the register; the center of the shop was taken up by tightly packed clothes racks. A woman who looked to be in her fifties was behind the register; Mrs. Shōno introduced her as Satō Yumiko. I introduced myself and explained that I was interested in learning about waste and recycling in Tsukuba. Mrs. Shōno showed me around the shop, explaining its typical operations. She unlocked a back door and showed me the shop's storage area, which contained off-season items as well as a variety of items, like signposts and plastic dividers, to be used for an event called the Tsukuba Recycle Market which Mrs. Shōno organizes (Tsukuba Recycle Market will be discussed in greater detail later in this chapter). At that time, I assumed that Creative Recycle and the Recycle Market were parts of the same overarching volunteer group, but I later learned that they are entirely separate organizations, connected only by the involvement of Mrs. Shōno and some of the other Creative Recycle volunteers.

After showing me the back room, Mrs. Shōno brought me back into the shop, and brought out a photo album of pictures from past Tsukuba Recycle Markets. She invited me to look through it while she and Mrs. Satō managed the shop. After about thirty minutes, Mrs. Shōno suggested we go to a nearby family restaurant for the interview I'd requested. During our two-hour talk, I learned a lot not only about Creative Recycle and the Tsukuba Recycle Market, but also about Mrs. Shōno's fascinating history as one of Tsukuba's "pioneer housewives" (Larzalere 2006), having moved to Tsukuba with her researcher husband in the early 1980s. Like many of the Tsukuba housewives discussed in Larzalere's study, Mrs. Shōno dealt with the loneliness and isolation of life in Tsukuba by engaging in volunteer activities; her own interests led her toward waste and recycling-related activities like the Tsukuba Recycle Market and Creative Recycle.

The three times I observed Creative Recycle in 2015, I visited only on days when Mrs. Shōno was working, not wanting to bother the other staff whom I had not yet met. Each of these times, I first asked Mrs. Shōno, and the other staff member if there was one, permission to record. Usually, Mrs. Shōno would explain some aspect of the shop to me (how customers have to fill out a form when donating items, how they weigh clothing on a scale to determine the price the donating customer should pay, etc.) during down times when there were few or no customers. When a customer came, she, or the other staff member if one was there at the time, would greet them, and often start chatting if the customer was an acquaintance, which was the case quite frequently. I had mentioned to Mrs. Shōno that I would also be interested in talking with the customers, so sometimes she also introduced me as a foreign student interested in Japanese recycling to customers she knew, and encouraged them to talk with me. When this

happened, I explained to the customer that I was studying recycling in Japan and wanted to know more about why people come to recycle shops like this, informed them that I was using an audio recorder, and then asked them a few questions (how frequently they come here, what they look for here, why they donated these items, etc.). When I was not talking to customers or listening to Mrs. Shōno's explanations, I stood quietly in the corner of the shop and made notes of my observations: the types of customers who came to the shop, what kind of things the staff and customers chatted about, what kind of items were frequently purchased, and so on.

When I began my second period of fieldwork in 2016, I wanted to focus more on the experiences of Creative Recycle volunteers. This time, I asked Mrs. Shōno to ask each of the volunteers, who work at the shop on different days, if it would be acceptable for me to come to the shop and interview them. When the arrangement was made, I went to the shop on the designated day and interviewed the volunteer during the shop's operating hours. This arrangement was preferable, Mrs. Shōno told me while we were working out the schedule, because the volunteers are all housewives and need to get home fairly early to take care of their families. Another volunteer told me in an interview that this is also the reason for the shop's 2.5 hours/5 days a week operating schedule. (For a detailed list of fieldwork interactions related to NPO Tsukuba Creative Recycle, see Appendix 1.)

For each of these observation-interviews, I brought an explanation sheet I had prepared specifically for the Creative Recycle volunteer interviews explaining, in Japanese, the purpose of my research and the topics I wanted to discuss, as well as my contact information, and gave the volunteers time to read it before beginning the interview. I recorded each interview with a digital audio recorder, after asking permission. The interviews were conducted in a stop-and-start fashion during the 2.5 hours of shop operations. Typically, when a customer entered, the volunteer would stop talking to me and greet them, then resume what she had been saying (although one volunteer completely ignored the customers entering the shop while talking with me, which made me a bit uncomfortable). This method of observation-interview turned out to be useful, as sometimes interruptions led to new questions and topics once the customer had left.

Aims and Activities of Creative Recycle: Building Community by Reducing Garbage

According to Creative Recycle's informational pamphlet, the organization's catchphrase is "[Turning] Tsukuba's garbage into a mountain of treasure" (*Tsukuba no gomi o takara no yama ni*). At the recycle shop, people can donate their unwanted items – clothing, kitchen tools, even some smaller types of furniture – which are then sold in the shop for extremely low prices. An item of adult clothing typically sells for 100 yen; children's clothing is 50 yen. Dishes and cups range from 10 to 100 yen,

depending on their perceived quality (the prices are determined by the volunteers). During my observations of the shop, I never saw anything priced higher than 500 yen.

The group typically receives around 10 kilograms of clothing per month. Customers must bring their items to the shop themselves; there are no collection points elsewhere and the group no longer rents a truck to transport items. Creative Recycle donates a portion of the clothing it receives overseas (usually to the Philippines). As this charitable activity involves considerable shipping expenses, the group charges a small fee to accept clothing donations, but there is no charge for donations of other items.

Fees for clothing donations
Up to 5 kg: 300 yen
5-10 kg: 500 yen
10-15 kg: 800 yen
15-20 kg: 1000 yen

(NPO Tsukuba Creative Recycle promotional flier, “Recycle Plaza Chūō Park,” 2015.)

In addition to the overseas donations of clothing, the organization also disposes of unsold clothing (one volunteer told me that about three-fourths of the clothing the group receives remains unsold) by more local routes. The volunteers go through all the clothing twice a year, switching out the clothes to be sold in the shop seasonally and gathering together the clothes they deem unlikely to sell in order to dispose of them. Clothing that can neither be sold nor donated abroad is typically given to a cloth processing company in a nearby city. A volunteer transports the clothing to the factory in her car and is reimbursed by the organization for transportation expenses.

According to the group’s pamphlet, Creative Recycle has the following three goals:

- 1) Widespread promotion of garbage reduction and reuse/recycle activities among regular people in order to establish a recycling-oriented society with a low environmental impact
- 2) Promotion of social participation by elderly people and people with disabilities through our activities
- 3) International support activities for developing countries

The first goal echoes the official national environmental goal of creating a “sound material-cycle society” or “recycling-oriented society” (*junkangata shakai*). The appearance of this official-sounding phrase in the stated goals of a non-profit recycling organization suggests that national and local governmental efforts to promote the concept among the populace have been relatively successfully, at least in the case

of citizen groups with an interest in recycling. Creative Recycle has significant ties with the Tsukuba City government, and receives subsidies and financial support from the city, so perhaps it is unsurprising that they would include a government buzzword in their official pamphlets.

The second goal of encouraging “social participation” is perhaps one of the most important functions of Creative Recycle. During one of my observations, a volunteer had been chatting with an elderly customer; when the customer left, the volunteer explained that this type of interaction was not incidental, but an essential aspect of the shop’s purpose: “This kind of conversation, right, speaking [with people], communicating, is also really important” (interview by the author, February 16, 2016). I noticed this dynamic every time I visited Creative Recycle – the volunteers always made an effort to speak with every customer, and many returning customers became friends with the volunteers. In fact, a few of the volunteers began their involvement with Creative Recycle as customers.

The third goal, international support activities, is carried out via overseas clothing donations. In the past, when the organization was larger, they did other support activities, like a phone card collection drive for donation to African countries, but now their main international focus is clothing donations to the Philippines.

The shop is open Tuesday, Wednesday, Friday, Saturday, and Sunday for only two and a half hours, from 13:00 to 15:30. The timing means that on weekdays especially, the majority of customers are elderly people, housewives, and students. Mrs. Shōno told me that one important function of the recycle shop is as a space for lonely people to come and visit and talk. There is also a hospital nearby, and the shop is located inside a large park, making it easy for casual wanderers to stop by and take a look around.

On the occasions I observed the shop for the duration of its opening hours, all or nearly all the customers were women. The few men I saw came mostly on weekends, and were either elderly or accompanying women I presumed to be their wives. The majority of customers were older women, although young women with small children also came fairly often. Occasionally non-Japanese customers came to the shop, mostly researchers (or researchers’ family members) at one of Tsukuba’s many research institutions or exchange students at Tsukuba University.

It seems that bargain hunting (or “searching for treasure” [*takaramono sagashi*] as one customer put it) at second-hand stores is not an activity for young, single men. Young men, who statistically are likely to be working full-time, are perhaps too busy to indulge in the kind of leisurely searching necessitated by a haphazardly laid out recycle shop like Creative Recycle. Unlike a regular store, at Creative Recycle you never know what items will be in stock (or in many cases where in the store they will be), which makes purposeful shopping impossible and encourages “treasure hunting.” When I asked one elderly woman customer what kind of items she was searching for, she replied “useful things” (*benrina mono*).

There are currently six volunteers who run the shop regularly during its operating hours, although there are others who do different tasks (transporting unsold clothing to a factory) or volunteer at the shop only occasionally. The volunteers are not paid for working at the shop, but they do receive reimbursements for any commuting expenses (in fact, most come to the shop by bicycle). Each volunteer works a different day of the week (Mrs. Miyamoto is the only one who works two days a week). There is a regular schedule, but if a volunteer can't work on her day for any reason then another volunteer will step in. The typical schedule for volunteers, as of 2016, was as follows:

Tuesdays: Mrs. Miyamoto

1st and 3rd Wednesdays: Mrs. Satō

2nd and 4th Wednesdays: Mrs. Ōhashi

Fridays: Mrs. Kaneda

Saturdays: Mrs. Miyamoto

1st, 2nd, and 3rd Sundays: Mrs. Morita

4th Sundays: Mrs. Shōno

The volunteers are all full-time housewives, except for Mrs. Satō who works part-time at a local newspaper. Most of them are in their 60s or 70s; the youngest, Mrs. Kaneda, is in her late forties. Many of them joined Creative Recycle relatively recently, within the last few years. Mrs. Miyamoto is the longest-serving volunteer, having been involved in the organization almost from its start. She started when the group was still holding their “recycle plaza” on a tarp in the park; she was encouraged to join by an acquaintance who was already in the group. Ōhashi Sachiko began volunteering about five years ago, around the time of the move from Namiki to Chūō Park. She was urged to join by Mrs. Shōno, who by that time (after the death of Mrs. Terada, the group’s founder) had become the de facto leader of Creative Recycle. Mrs. Shōno and Mrs. Ōhashi had been acquainted for years, ever since they both participated in organizing a local festival. Mrs. Ōhashi had never heard of Creative Recycle or visited the recycle shop before Mrs. Shōno encouraged her to first visit (she was very impressed with the low prices) and then join as a volunteer. Mrs. Kaneda also joined about five years ago. Her first interaction with Creative Recycle was as a customer – she lived nearby, and often walked around the park and stopped in the recycle shop on her way to the library. She came frequently to buy inexpensive clothing for her children and became friendly with the volunteers, especially Mrs. Shōno. When she mentioned that she had noticed that there did not seem to be many staff members, Mrs. Shōno asked her if she would be interested in becoming a volunteer.

It is clear that the main impetus for volunteering at Creative Recycle, at least for current members, is social pressure from friends and acquaintances (rather than, say, a preexisting interest in recycling). Most of the women are or have been involved in other types of volunteer activities, like the parent-teacher association at their children's school (Mrs. Kaneda told me that at her children's school, parents are actually required to participate in the PTA), teaching CPR classes, being a school lifeguard, or helping at a group for disabled children. Notably, Mrs. Shōno organizes the Tsukuba Recycle Market four times a year, and Mrs. Ōhashi is one of the volunteers for that event. Tsukuba Recycle Market, and its relationship with Creative Recycle, will be explained in more detail later in this chapter.

A typical day at Creative Recycle begins when the volunteer whose turn it is to staff the shop comes to unlock the doors. She then wheels a moveable cart displaying clothing, stored in the shop's entranceway while it is closed, outside, where it will attract customers (and where there is room for it). She also puts out a bright red banner saying "open" (*eigyōchū*). When customers enter the store, the volunteer will typically greet them, and sometimes chat with them about the weather or another topic. When a customer buys something, the volunteer enters the price of the items into the cash register, tells the customer the total, then takes the payment and gives back change if necessary; the cash register generates a receipt for the customer and the volunteer puts them money in the cash register.

When not helping or speaking with customers, volunteers sort through any donations that have been received but not yet processed. The volunteer decides the price of the item, enters that number on the price labeling machine, stamps out a sticker with the price on it, and attaches it to the item, which is then placed on the appropriate rack or shelf. The volunteers have complete discretion over pricing, which can sometimes lead to disagreements when two volunteers are working at the same time. As Mrs. Shōno told me, staff members (particularly newer versus older volunteers) have different opinions about the value of particular items, which can be difficult, especially when they must decide what to keep and what to throw out during the twice-yearly shop reorganization.

Volunteers also tend to be good customers of Creative Recycle. On several occasions that I observed, a volunteer going through recent donations would notice something she liked, pay for it (after determining a reasonable price, either on her own or in discussion with the other volunteer if there was another present), and take it home rather than put it out for sale. Volunteers also sometimes noticed and bought things already placed out for sale on the shelves. The items that caught the volunteers' eyes ranged from useful items for a specific purpose (a collapsible tent for a camping trip) to small gifts for loved ones (a thin brown scarf for Mrs. Shōno's husband, a decorative teacup for her mother).

At the end of the shop's opening hours, the volunteer prints off the total sales for the day from the cash register, and fills out a form with the day's total. The cash from the day's sales (the store does not accept credit cards) is placed with this form in an envelope with the date and name of the volunteer

written on it. About twice a month, Mrs. Shōno takes all of these envelopes and forms to deposit the money in the organization's bank account and to file the forms in a record book she keeps in her home.

In order to provide an in-depth picture of the daily workings of Creative Recycle, I will describe in detail one of my observations of the shop, which took place on January 12, 2016. I had arranged to meet Mrs. Shōno at Creative Recycle at 13:00, when it opened for the day, and I arrived five minutes early. She and another volunteer were already there setting up: propping the door open, bringing out a wheeled shelf of items to display outside, starting to sort through some previously donated items which had not yet been priced (Mrs. Shōno explained that they had been very busy before closing for the New Year's holiday so the volunteers hadn't had time to go through everything yet). That particular day, January 12), was the first day back open after the break; Mrs. Shōno and the other volunteer, Mrs. Miyamoto, greeted all the customers with a "Happy New Year" (*akemashite omedetō gozaimasu*), and gave me and the first few customers to arrive a small packet of hard candy, which she jokingly called a New Year's gift (*otoshidama*; this gift, typically given by parents to children, is almost always money). Mrs. Shōno also mentioned that around this time they would start going through their clothes inventory to determine what to keep and what to throw away or donate overseas. (Other household items, which typically sell much more quickly than clothing, are all set out for sale in the store and not stored in the back room.)

The shop was much busier that day than the times I had been there previously, in the spring. This may have been due to customers wanting to divest themselves of unwanted items after the traditional New Year's house cleaning (*ōsōji*). Three customers brought donations (and then all of them also stayed to browse), and during the two hours I was in the shop about seven customers came. This may not seem like a high number, but each customer tended to stay for a while (about 20-30 minutes), browsing through all the items, so there were not as many periods of the shop being empty as there had been when I'd come previously, especially for a weekday (it was Tuesday).

The main activity occupying the volunteers was sorting and pricing the new donations. This involved taking each item out of the box, unwrapping it if it was wrapped, as was the case with the many dishes and glasses they sorted that day, determining its price, labeling it, and placing it on a shelf or rack for sale. When both Mrs. Shōno and Mrs. Miyamoto were in the shop (Mrs. Shōno stepped out a few times to take phone calls or to chat with an acquaintance), they would suggest a price for the item they were looking at, and wait for agreement from the other before labeling it. When they discovered a box of 10 packets of bath powder (a powder that dissolves in the bath which purports to have a skin-softening or similar effect, and often adds color as well), there was a brief discussion of how to best divide and price them. Perhaps they should sell them individually for 20 yen each? Or all together for 100 yen? They decided to split the difference and divide them into two packs of five, for 50 yen each. I helped the

volunteers put the packets into small clear plastic bags and tie them with ribbon, before labeling them and placing them on the shelves. (The shop has a shelf full of packaging materials – bags, newspaper, ribbons – which donations had been delivered in, and which the staff saved to use for occasions like this.)

The sorting process became a lively activity – one of the volunteers would exclaim over a particularly beautiful or interesting item, and the other volunteer and sometimes the customers would look at it and discuss it. When Mrs. Miyamoto was unpacking a box of shoes, one of the customers came over to help, unwrapping the shoes and commenting on them (“Aren’t these dancing shoes? Like for tango?”) and chatting with the volunteers. The work of the shop became an opportunity for friendly interaction between the volunteers and the customers.

Even when the customers weren’t helping the volunteers, they still frequently chatted with them – while they were shopping, while they were paying, and after they paid and were lingering in the shop to continue the conversation. Most of these were regular customers and well known to both Mrs. Shōno and Mrs. Miyamoto; their conversations were friendly and touched on news about family members and mutual acquaintances. One customer that day even brought the staff a gift of homemade bread. This type of gift-giving by customers is common; I observed it many times during my fieldwork at Creative Recycle. (I was also often the recipient by association of such largesse. The first time I visited the store in 2015, I was given some of the candied orange peels a customer had brought for the staff; on one memorable occasion in 2016 I was given a cabbage.)

Mrs. Shōno took several phone calls while the shop was open, all of them related to Creative Recycle. The shop does not have a landline telephone, and Mrs. Shōno’s cell phone number is listed as the shop’s official contact number. The calls she took were questions about whether Creative Recycle was open again, and how to get there. She stepped out of the store about an hour before closing to talk with a friend; during this time, I continued helping Mrs. Miyamoto sort donations and help customers (I got a bag off a high shelf for an elderly lady and helped a foreign customer by translating her questions).

By 14:45 – 45 minutes before the scheduled closing time – all the customers had left, and Mrs. Miyamoto and I continued unpacking and shelving items until about 15:10, when Mrs. Shōno returned. She asked if Mrs. Miyamoto could manage closing up by herself, and invited me to get coffee with her and her friend. Mrs. Miyamoto assured us that she was fine, so I left with Mrs. Shōno, and Mrs. Miyamoto closed up the shop. The day was fairly typical of my experiences volunteering at Creative Recycle, although it was slightly busier than usual.

My observations over several months left me with the strong impression that the most vital aspect of Creative Recycle is the opportunity for community interaction and socialization among customers and staff, most of whom are older women. I witnessed numerous conversations between customers and staff that indicated years of friendship or at least friendly acquaintance; one woman who came to the shop from

another city said she used to live in Tsukuba and had moved away a few years ago, but still returned to the shop occasionally to donate items and talk with her friends among the volunteers. For both customers and volunteers, Creative Recycle represents an important outlet for long-term social interaction and a valuable site of community building.

Tsukuba Recycle Market: A Housewife's Effort to Reduce Waste

A second example of a community-oriented volunteer recycling organization founded by housewives in Tsukuba is the Tsukuba Recycle Market (Tsukuba Risaikuru Maaketto). The Recycle Market is a flea-market-style open-air buying and selling event that is currently held four times per year in Tsukuba's Chūō Park. It differs from most flea markets in that professionals and small businesses are not allowed to sell: it is exclusively for people wanting to sell unwanted items that would otherwise be discarded, hence the name "Recycle Market."

I was introduced to this waste-reducing sales event, and its organizing volunteer group the Association to Promote Recycling (Risaikuru o Suishinsuru Kai), by Shōno Takako, the same volunteer whom I met at the Tsukuba City Waste Reduction Promotion Committee as the representative of NPO Creative Recycle. Mrs. Shōno is currently the primary organizer and contact person of both recycling organizations, but her passion is for the Recycle Market, which she founded in 1993.

Mrs. Shōno moved to Tsukuba in 1981, when her husband was transferred to the Ministry of Agriculture, Forestry, and Fisheries' (Nōrinsuisanshō) new research institution in the developing science city. At the time, her two children were in fourth grade and kindergarten, and she was occupied with their care and with creating a new home in an unfamiliar city. But as her children grew more self-sufficient, she poured her considerable energies into a variety of volunteer activities and charitable projects. She had always been interested in consumer issues, especially those related to food and waste, and her volunteer activities tended in these directions even before she moved to Tsukuba.

The idea for the Tsukuba Recycle Market was born from Mrs. Shōno's determination to help solve the city's garbage problem, specifically to find a way to help that would be easily accessible to housewives like herself. After a study visit to Tsukuba's incineration facility, at the time known as the Sanitation Center (Eisei Sentaa), in the early 1990s, Mrs. Shōno was struck by the overwhelming volume of waste and the poor state of the facilities. At the time, she recalled, the Sanitation Center was very dirty and overrun with trash, and she left the tour wondering "What can I do on my own?" to help resolve the problem:

The city Sanitation Center, that is, you know the Clean Center? It used to be the Sanitation Center. Well, as part of a consumer living class (*shōhi seikatsu gakkū*), I went on a study tour of

the Sanitation Center. ... Then, well, there were quite a lot of things that could still be used laying around there. Ah, it wasn't like the nice Clean Center we have now. Before, it was a really dirty place. So then I thought, I want to do something – what can I do on my own? And then you know, housewives probably can't do anything with things they don't need anymore except throw them away, right? They don't have much knowledge [about recycling]. So, on the other hand, what can be done with unwanted things... wouldn't it be good to open them to everyone? To show them at someplace like a market, and have them taken by people who want them? ... That was the start of the Recycle Market. (interview by the author, March 4, 2016)

After coming up with this idea, Mrs. Shōno set about making her idea reality. Approaching the problem explicitly from her position as a housewife, she contacted four or five of her friends in Tsukuba, all housewives, and asked them to help her implement a kind of open market for unwanted goods. They presented their plan together as a “housewives’ group” (*shufu no dantai*) to the city office and asked for institutional and financial support for the idea. Their idea was approved, and although they did not receive direct monetary support from the city, several city government employees donated items for them to sell, and the group was able to list the city as an official sponsor on their promotional materials. The group called themselves the Association to Promote Recycling (Risaikuru o Suishinsuru Kai)²⁷; this name was printed for the first time in the Tsukuba City Newsletter’s announcement of the second Tsukuba Flea Market in November 1993.

The first market event was held in the spring of 1993 at a commercial plaza next to the RightOn clothing store in the center of Tsukuba. The group advertised the event in local newspapers and resident information bulletins well in advance, asking those interested in selling items to register before the event. Ninety-eight people signed up to sell their unwanted goods at the first market, which attracted dozens of buyers and sellers not only from Tsukuba but also other towns in the area.

At the time, they called the event a “flea market” (*furii maaketto*), but the name was changed to “Recycle Market” in 1997. According to Mrs. Shōno, the reason for this change was to emphasize that the market was for used consumer goods, not for vendors selling new products or crafts. They made this change and began explicitly barring “professionals” from the market because once it began growing and attracting more attention, businesses selling new products and individuals selling handicrafts began

²⁷ The Association to Promote Recycling (Risaikuru o Suishinsuru Kai), which organizes the Tsukuba Recycle Market and was founded by Mrs. Shōno, is a different organization from the Recycling Promotion Assembly (Risaikuru Suishin Kaigi) started by Mrs. Terada which became NPO Tsukuba Creative Recycle. A volunteer involved with Creative Recycle from its inception told me that while Mrs. Shōno and Mrs. Terada were aware of each other’s efforts, the two groups did not interact much as a result of personal differences between the two founders.

applying to participate, which detracted from the event's main purpose of decreasing household waste (interview by the author, March 4, 2016).

In the first few years of the Recycle Market's existence, its location changed several times depending on the availability of commercial spaces and the group's finances. Over the years, the event was held in commercial and public plazas, parks, and even parking lots. Typically the group had to pay a rental or usage fee to use the space, although often at reduced rates in recognition of the event's charitable purpose. Although they received some financial support from the city government, they sometimes struggled to raise enough funds. Mrs. Shōno explained that when they couldn't afford the rental fee, they simply canceled that season's Recycle Market. The Market was also canceled in the event of rain, which meant that although the group aimed to hold a Market four times a year, in the early years it typically happened only two or three times annually.

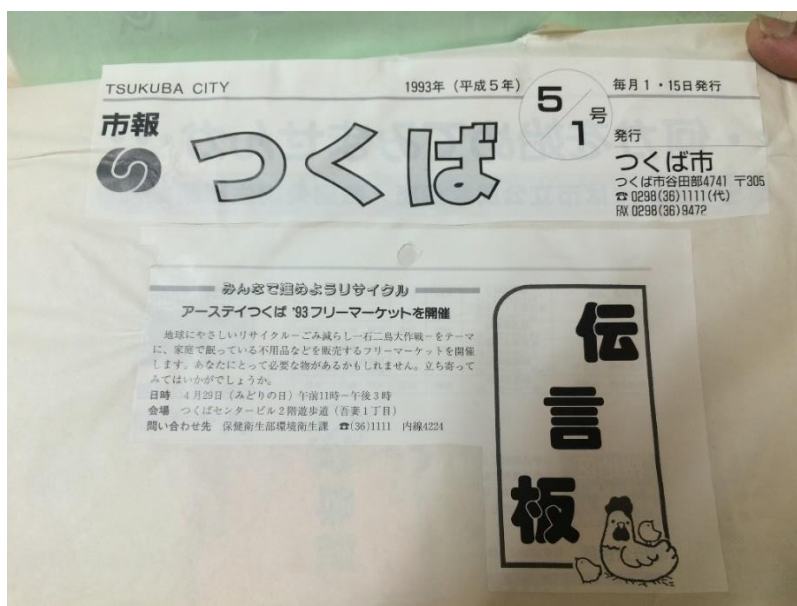
From the beginning, Mrs. Shōno and the other members of the Association to Promote Recycling designated each market by number (i.e., the 2nd Tsukuba Flea Market [Dai 2 Kai Tsukuba Furi Maaketto] was held in November 1993, and the 104th Tsukuba Recycle Market [Dai 104 Kai Tsukuba Risaikuru Maaketto] was held in November 2017), and in this way have kept track of how many times the market has been held. (The numbering system did not change when the event's name changed from Flea Market to Recycle Market.) To mark the occasion of the 60th market, the group arranged a magic show. For the 100th market in 2016, they reduced the fee by half, and posted the following message from Mrs. Shōno on their website:

When I visited the Clean Center in 1993, I saw many things that could still be used that were being thrown away as garbage. My feeling that something should be done about this wastefulness grew, and after thinking about it for a year, the first Recycle Market was held at Tsukuba Center Plaza on May 1, [1993]. Amazingly, 100 sellers came. Because it was the first time, there was a lot of confusion. Now 23 years have passed since then, and with the support of our sellers, customers, and staff, we have been able to continue until the 100th time. Now and in the future, with deepest gratitude, I want to welcome everyone to the Recycle Market.

(Tsukuba Recycle Market website, accessed January 15, 2018)

The group's primary source of revenue comes from the small fee they charge sellers at the market (this fee was 300 yen in the event's early years, and is currently 500 yen). The fee entitles the seller to a selling space a little smaller than the area of two tatami mats (*2 jō*, approximately 3.6 square meters). Sellers needing more space can pay double the fee for twice the space.

Unlike NPO Tsukuba Creative Recycle, the Association to Promote Recycling chose not to officially incorporate as a non-profit organization even during the NPO “boom” in the late 1990s and early 2000s. Although its lack of official status disqualifies the group from certain benefits and the possibility of more substantial financial support from the government, it also allows the group more autonomy and flexibility with regard to its activities, and avoids the tax obligations that registered NPOs are subject to. In an interview, Mrs. Shōno expressed relief that they had managed to avoid such legal entanglements: “But you know, it’s not an NPO, this one. That’s why it’s easy [*raku*]. We could end it tomorrow, you know, the organization. I don’t have any intention of quitting though [laughter]. For that kind of thing, you know, if it’s not easy it’s no good” (interview by the author, March 4, 2016).



A notification in the “Message Board” (dengenban) section of the Tsukuba City newsletter (shihō), announcing the first Flea Market to be held during the Earth Day Tsukuba event on April 29, 1993. (Photograph of a page in Mrs. Shōno’s private scrapbook taken by the author March 4, 2016 and published with Mrs. Shōno’s permission.)

In recent years, the Tsukuba Recycle Market has been held in Chūō Park, at the “Water Plaza” (*mizu no hiroba*, so called because it abuts the park’s large pond), which is also next to Creative Recycle’s single remaining shop location. It is scheduled four times per year, on a Sunday in March, May, September, and November. If it rains that day, the event is simply canceled and not rescheduled.

Prospective sellers must register in advance by contacting Mrs. Shōno by phone or postal mail. The organization now has a very basic website which provides information about the market as well as Mrs. Shōno’s contact details. They also advertise the market with fliers, which are always available to take from the Creative Recycle shop; they also place fliers at the city office, public library, and museums.

Mrs. Shōno told me that there are typically around 80-100 sellers, who pay a fee of 500 yen for a space of approximately 3.3 square meters. Some sellers opt to pay double for two spaces in order to sell more. The spaces are simply marked areas of bare ground (either concrete on the plaza or grass in the outer areas) – the group does not provide tables or booths to the sellers. The spaces are measured by the volunteers and marked off by tape.

Many of the sellers have participated in the Recycle Market over a long period of time; these more experienced sellers often bring their own tables or even wheeled clothes racks to display their items. The majority of sellers simply bring plastic sheets or tarps to cover their spaces. The spaces are not assigned; sellers can choose their own on a first-come, first-served basis. When I observed the market in both March 2016 and March 2018, sellers were lining up and waiting to enter well before registration opened at 9:00 a.m.; those who come earlier are able to choose the better spots along the walkway rather than those on the edges of the plaza.

I participated in the planning and organizational activities for the 98th Tsukuba Recycle Market in March 2016 as a volunteer, during which I made recordings of the meetings and activities and took notes of my observations. At organizational meetings, Mrs. Shōno introduced me to the other volunteers as a graduate student researcher interested in community recycling, and I asked their permission before recording the meetings. When I spoke to sellers and customers at the market, I introduced myself as a graduate student researcher and informed them I was using a voice recorder before asking questions.

The organization of Tsukuba Recycle Market and the Association to Promote Recycling is very informal, more like a social circle than a formal organization. (Although the group's official name is the Association to Promote Recycling and they list this organization name on promotional materials, I never heard any of the members refer to themselves with this formal name when speaking to each other.) Much of the planning work for the Recycle Market I observed was done over casual chats at family restaurants or cafés, and even the one formal meeting I attended the day before the market was run more as a friendly discussion than a structured organizational meeting.

The core group of volunteers for the Tsukuba Recycle Market are mostly good friends of Mrs. Shōno who have been helping with the market for years, some since the very beginning in 1993. (As Mrs. Shōno is the driving force behind Tsukuba Recycle Market, it makes sense that the core volunteers are her friends: some she recruited to help with the market because of their existing friendship, while others became friends with her due to their prolonged involvement with the market.)

The volunteers I saw most often in the weeks leading up to the market were a family named Izawa, consisting of a husband and wife about the same age as Mrs. Shōno (early 70s) and their daughter Ayaka, a woman in her 30s. This family had been helping with the Recycle Market for the past 12 years, since about 2004. Another core member, whom I saw less often because he moved in different social

circles from Mrs. Shōno but was nevertheless a vital member of the group, was Mr. Watanabe, a man in his early fifties who had been involved with the Recycle Market from the start. He participated in one of the first markets in the early 1990s as a seller while a student at Tsukuba University, and began volunteering soon after. He quickly became invaluable to the group particularly because of his computer skills (when I spoke with her in 2016, Mrs. Shōno still did not have a computer in her home and conducted the bulk of the business of both the Tsukuba Recycle Market and Creative Recycle on paper and over the phone). Currently, Mr. Watanabe handles things like creating and printing fliers for the market, and maintaining and updating the group's website.

The other core volunteers I met were older women in their 60s and 70s, most of whom started volunteering due to their acquaintance with Mrs. Shōno. At the preparation meeting I observed the day before the market, the volunteers who attended, in addition to Mrs. Shōno and Mr. Watanabe, consisted of four older women and one older man. I was told that usually they have more volunteers, especially students from Tsukuba Gakuin University, but who could not attend this time because of other commitments (in mid-March students are on break, and it is also a busy time for moving and other life transitions before school or work starts in April; the meeting was also held in the morning rather than the afternoon as usual, meaning that fewer people were available).

Most of the formal organizational meeting held the day before the market was spent preparing for the event: assembling name tags and arm bands, sorting numbered badges to be distributed to the sellers, marking the ground with tape to indicate selling spaces and walkways, and putting up signs around the park. After this work was finished, the volunteers held a meeting to first go over the schedule for the market, and then to discuss other items of business such as what to do to commemorate the upcoming 100th market in November. Several ideas were suggested (holding a concert, making the selling spaces free), but the group decided to make the final decision at the next meeting in May. (I learned later that they decided to reduce the selling fee by half.)

On the day of the March 2016 Recycle Market, I met Mrs. Shōno and the other volunteers at 8:30 a.m. to help set up. It was a cold, cloudy day (fortunately there was no rain in the forecast), and everyone was wearing warm winter coats. One of the volunteers had brought a container of hot tea to share. When I arrived at the Creative Recycle building, a lot of people were already there, moving things from the storage room to the site (the group had been using the Creative Recycle storage room, which held out-of-season clothes and other items, to store signs and other materials for Tsukuba Recycle Market ever since Mrs. Shōno had gotten involved with Creative Recycle). I spotted Mrs. Shōno, carrying things with an air of extreme busyness, and she told me to get the name badge and armband that would mark me as a volunteer. I helped everyone carry things like divider rope, numbered badges, and signs from the storage room to the plaza and the registration desk. We put down a large blue tarp in the middle of the plaza

where the organizers would be stationed; most volunteers would stay here to answer questions and also to sell items. The group, under Mrs. Shōno's direction, put out items from Creative Recycle's unsold inventory, and individual members could also bring their own items to sell in this shared "Headquarters" (*honbu*) station without having to pay a fee for their own selling space. The Creative Recycle and individual sales were kept separate, and proceeds from the Creative Recycle sales were returned to Creative Recycle while individual volunteers kept the money from their own sales.



The "Headquarters" area at the Tsukuba Recycle Market (March 13, 2016).

The market was scheduled to begin at 10:00 a.m., with registration for sellers opening at 9:00, but when I arrived at 8:30 there was already a line of sellers waiting. Since spots were not assigned but were chosen by sellers, those who arrived earlier could secure a better spot. There were 67 registered sellers that day, which Mrs. Shōno told me was fewer than usual. Most sellers brought their items by car (and parked in the park's paid parking lot), and tarps to set up on. Some brought their own tables or wheeled clothing racks to display their items.



Sellers with clothing racks at the Tsukuba Recycle Market (March 13, 2016).

There were also customers lined up to enter the market well before it started at 10:00. In fact, I was surprised by the number of people who came; the informal organization style led me to assume the event would be rather small, but I should have known better. After more than 20 years, the Recycle Market had become an institution with a dedicated following. Some customers come from other cities or even other prefectures. Mrs. Shōno told me that many of the customers who line up early to have first pick of the sellers' wares are "professionals" who buy up the potentially valuable items for resale. Other early customers are just "ordinary" consumers looking for a good deal. The market is open from 10:00-14:00, so many of those who wander in later are people just enjoying a walk in the park on a Sunday who happened across the market. Mrs. Shōno estimated that about 100 customers came that day, which she said was also a bit less than usual, probably due to the cold weather.



Prospective buyers wait outside for the market to begin, while sellers set up their spaces (March 13, 2016).

Once the market opened at 10:00 (one of the volunteers lifted the plastic divider that marked the “entrance”), it was bustling with activity for about two hours. Most of the work for the volunteers was during set-up and clean-up, so from 10:00 I joined a friend who was selling things that day to see the market from a seller’s perspective. The busiest time was right at the beginning, when the serious deal-seekers arrived. My friend, who was moving away from Tsukuba for a new job in April, was selling electronics, small household appliances, and clothing. The electronics and appliances sold within the first hour; one man, probably a “professional,” bought most of them at once. My friend helped him carry the items to his car while I watched the selling space.²⁸

The market began to wind down after the first hour: customers began leaving slowly around 11:00, and then en masse around 12:00. By 1:30 p.m., there were only a handful of sellers and very few customers remaining. This may have been due to the cold weather and increasingly cloudy skies – it looked like it would rain soon. Mrs. Shōno and the other volunteers began cleaning up a little before 2:00 p.m., when the market was scheduled to end. We put all the dividing ropes and cones, badges, and signs back in the Creative Recycle storage room. (Sellers were instructed to return their badges before leaving; Mrs. Shōno told me she would send a postcard asking for the badges back to anyone who forgot.) Once most of the work was done, a few volunteers began leaving one by one. When everything was finished to

²⁸ While theft is rare at the Recycle Market (as it is everywhere in Japan), it does occasionally happen. One seller reported a theft at the market I attended, and while unfortunately the perpetrator was never found, Mrs. Shōno arranged for a police officer to attend the next market in May to discourage further incidents.

Mrs. Shōno's satisfaction, she ended the day by saying "Good work!" (*otsukaresamadeshita*), and the volunteers dispersed with no further fanfare.

After the event, Mrs. Shōno told me that in total this time the group had raised about 31,000 yen (from the seller fees), which would cover the cost of the tape, rope, and other materials, usage fees for the plaza, parking fees for the volunteers who brought equipment in their cars, and the mandatory volunteer insurance (this is required by the prefectural government for any large-scale volunteer event and costs about 300 yen per volunteer).

Mottainai: A Passion for Reducing Waste

Like Tsukuba Creative Recycle, the Tsukuba Recycle Market functions as a site where volunteers, sellers, and customers alike can forge social connections and build community. For the volunteers in particular, most of whom have been participating in the organization for years, this type of active and creative volunteer work can create a shared sense of purpose and community. This community creation has been particularly important in Tsukuba, which as a centrally-planned "science city" was experienced as isolating for many of the housewives who moved there with their husbands during the city's development in the 1970s-1990s. In her study of Tsukuba housewives in the late 1980s and early 2000s, Larzalere (2006) notes that the isolation of starting a new life, devoid of family connections and a deep-rooted community, caused many women in Tsukuba to find an outlet in volunteer work such as parent-teacher associations, government housing associations, or grassroots organizations (Larzalere 2006, 101). This volunteer work served not only to relieve these housewives' loneliness, but also as a way for them to express themselves: "The pioneer women of my study have actively sought out networking with other individuals like themselves to alleviate their isolation and loneliness, gain friendship and security, and create a venue through their networking to express their individuality" (Larzalere 2006, 95). This is certainly true of Mrs. Shōno, who takes a great deal of pride in being an active volunteer and advocate for waste reduction as well as a dedicated housewife. In an interview, Mrs. Shōno expressed her pride in the achievements of Tsukuba Recycle Market and a bit of concern for its future once she is gone, saying "This is my life's work – my whole life!" (interview by the author, March 4, 2016).

For most of the volunteers involved in both Creative Recycle and the Recycle Market, the primary reason for engaging in these volunteer activities was social interaction: most of them joined these groups because they were invited by friends or acquaintances, and viewed their activities as a way to participate in, interact with, and improve their local communities. Many volunteers are also currently involved in, or were previously involved in, other volunteer activities not related to waste and recycling, such as parent-teacher associations, groups to help those with disabilities, or organizing local festivals.

While the volunteers all agreed that the groups' stated aim of reducing waste is a valuable goal, most do not have a particular interest in recycling or other environmental issues.

The most notable exception to this trend among the volunteers was Mrs. Shōno, who founded Tsukuba Recycle Market over twenty years ago because of her passion for reducing waste and solving Tsukuba's garbage problems. When I asked about her reasons for getting involved with recycling and waste reduction-related volunteer work, Mrs. Shōno often brought up the word *mottainai*, meaning "wasteful" or "don't waste," which is commonly used to express regret over something potentially wasteful or to admonish the listener not to waste something.

Mottainai is a phrase one often hears in connection with waste in Japan. Although the exact meaning changes depending on context, it generally means "What a waste" or "Don't let it go to waste!" It can be used in situations ranging from a parent admonishing a child to clean its plate, to a friend chiding one for buying more clothes than one can wear, to a professor advising a student not to pass up an opportunity. In describing the term's recent rise to cultural prominence, Siniawer notes, "'*Mottainai*' thus became a convenient, one-word encapsulation of concerns about resource scarcity, food security, the proliferation of garbage, and a throw-away culture, and the term was used to push back against the perceived prevalence of consumerism, materialism, and environmental degradation" (Siniawer 2014, 166). Siniawer highlights the rise of *mottainai* in popular culture, such as a series of children's books entitled *Mottainai Bāsan (No-Waste Grandma)* and also points out its embrace in more official circles (for example, the "*Mottainai* Campaign" started in the mid-2000s by Kenyan activist and Nobel laureate Wangari Maathai and sponsored by several Japanese companies, which used the term as a "keyword for the global environmental movement") (Siniawer 2014, 176).

The Japanese government has also employed *mottainai* as a buzzword for promoting environmental consciousness, particularly with regard to waste and recycling. A pamphlet published in both Japanese and English by the Ministry of Environment in 2008 entitled "A Sound Material-Cycle Society through the Eyes of Hokusai" emphasises the "spirit of *mottainai*" (*mottainai no kokoro*; *mottainai no seishin*) possessed by the people of the Edo era (1603-1868), and encourages readers to emulate this spirit. The English version of the pamphlet explains that "*Mottainai* is a long-established Japanese concept meaning that it is a shame for something to go to waste without having made use of its potential in full. This expression incorporates a respect for the environment that has been handed down from ages past" (Ministry of Environment 2008, 6). The pamphlet notes that not only farmers and artisans, but even samurai "valued the virtue of *shisso ken'yaku* [simplicity and frugality] and lived a modest life" (Ministry of Environment 2008, 6). Siniawer notes that *mottainai* is also frequently framed as a uniquely "Japanese virtue" (Siniawer 2014, 175), and the Ministry of Environment pamphlet employs a similar framing. A section entitled "Keeping with the spirit of *mottainai*" asserts that "Traditionally, the

Japanese people use goods with care” (Ministry of Environment 2008, 7). Like Susan Strasser’s work on the history of waste in the United States, in which she emphasises how “the traditional stewardship of objects” (Strasser 1999, 262) gave way to a “throwaway society,” the Ministry of Environment pamphlet contrasts the idyllic ‘sound material cycle society’ of the past with a wasteful present. But this shift is attributed not (only) to industrialization, but to the introduction of Western culture: “Although Japan had successfully established an SMC [sound material cycle] society in the Edo era, people’s lifestyle and way of thinking about goods gradually changed as Western cultures were imported” (Ministry of Environment 2008, 8). This framework establishes a binary between *mottainai* as a Japanese value and wastefulness as a characteristic of Western culture, supporting the pamphlet’s overall message that reducing waste and recycling are ways to embrace one’s Japanese heritage.

Mrs. Shōno has employed the term *mottainai* extensively in promotional materials for both of the volunteer waste reduction groups she is involved in, Creative Recycle and the Tsukuba Recycle Market. A flier for Creative Recycle proclaims “Let’s put *mottainai* into practice!!” (*Mottainai o jissen shiyo!!*). On a website introducing NPOs in Tsukuba, Creative Recycle mentions in the space for the group’s purpose, “It’s *mottainai* to throw away things that can still be used,” and the section for “people we want to recruit” lists “People who like recycling, people with a *mottainai* spirit.” In an interview, Mrs. Shōno explained that one reason people bring their unwanted things to donate to Creative Recycle is that they feel “this can still be used, *mottainai*” - it would be wasteful to simply throw away something potentially useful to others, so they decide to bring it to the recycle shop instead (interview by the author, April 1, 2015).

Mrs. Shōno also used *mottainai* to describe the feelings of the volunteers and the customers of Creative Recycle. Both groups, she said, are motivated by a feeling of *mottainai* – “they can’t [just] throw it away” – if possible, they want to use something up all the way, and if they can’t use it themselves, someone else can. Describing her own motivations, she explained that she feels a very strong desire to prevent things from becoming garbage (*gomi*), and this feeling is what drives her volunteer work. “Everyone thinks so, right? This feeling that, because it’s *mottainai*, we have to do something – if this feeling went away, I think this [recycling] business would also disappear” (interview by the author, April 1, 2015). She joked that some people think she is rich because she does so much volunteering, but that perception is incorrect – it’s not that she’s rich, but only because her *mottainai* spirit is so strong that she is able to do this work: “I do this because the feeling of *mottainai* [*mottainai to iu kanjō*] continues no matter what, it’s not because I’m a rich person” (interview by the author, April 1, 2015).

Mrs. Shōno’s *mottainai* spirit was not only expressed through her volunteer work, but also in her personal life. As mentioned in Chapter 3, I visited Mrs. Shōno’s home for an interview and to observe how she managed her household waste. Clean and well-organized, her home unmistakably showed her

dedication to reducing wastefulness: anything that could be reused would be. In addition to storage containers for recyclables like plastic bottles and cans that are commonplace in Japanese homes, Mrs. Shōno also separated plastic bottle caps, Styrofoam trays, and newspaper for separate recycling, and even saved twist-ties and rubber bands from food packaging for later use. Most notable was a small line hung on her refrigerator where she put used plastic wrap to dry after rinsing it in order to reuse it as many times as possible.



Mrs. Shōno's mottainai refrigerator (March 4, 2016).

Housewife Volunteers, Waste, and Citizenship in Japan

Although some waste and recycling volunteers are motivated by a strong desire to reduce waste and wastefulness, most are involved for the same reasons anyone might join a volunteer organization: to form new social relationships, and to find a sense of community and shared purpose. Larzalere describes in detail how the groups created by Tsukuba's "pioneer housewives" allow them to form their own communities and define their own identities: "From the women's perspective, membership in their circles is much more than a pursuit of hobbies. By participating in their circles and in their commitment to each other, the women become members of a community of their making in which they define their roles. The members exchange ideas outside the context of their expected roles as good wives and wise mothers" (Larzalere 2006, 115). Although Larzalere suggests these group activities are "outside" the housewife role, I would argue that in fact participation in housewife circles and volunteer activities are well within the scope of the housewife role, and in fact serve to reinforce the housewife identity for the women who

take part in them. As LeBlanc (1999) has shown, the role of the housewife is a public role in Japan, and the housewife role can be considered the ideal form of citizenship for women. Women who desire to engage in social activities outside the home tend to frame these activities as supporting or complementing their primary roles as wives as mothers. Perhaps because of this explicit framing, which was employed by the founders and volunteers of the two recycling groups in Tsukuba as well, the type of volunteering undertaken by housewives is often not viewed as “real” volunteering at all. In her study of community volunteering in Japan, Nakano observes that local, community-oriented volunteering is often overlooked:

Community volunteers are often not considered to be volunteers at all, but merely people who are fulfilling their “duty” (*gimuteki*) or taking up local posts (*yakuwari*). Many middle-class friends in Japan told me that what I was observing was not volunteering, but merely “local activities” (*chiiki katsudō*). Community volunteering receives relatively little attention in the media compared to the other forms of volunteering involving the environment, international assistance, disaster relief, or volunteering by youth. I suggest that this lack of attention to and even dismissal of community volunteering reflects the ways in which community volunteers, as middle-aged and older women and men who are marginalized from the workforce, tend to be devalued and ignored by society in general. (Nakano 2005, 3).

Because of the connection between this type of community volunteering and the housewife role, the most common types of volunteer work tend to be those related to the home and to care work. Waste reduction and recycling fall well within the scope of the housewife role, calling to mind the rhetoric of Ichikawa Fusae and other members of the League for Women’s Suffrage in the 1933 Garbage Campaign, which tied women’s role as homemakers, responsible for cleaning garbage inside the house, with a greater public role, cleaning garbage in the city and scrubbing corruption out of local politics (see Chapter 1). For women to want a more prominent role in public life, it seems the most successful strategy is still to present oneself as a housewife. LeBlanc (1999) demonstrates this clearly with her analysis of the election campaign of a female politician, who presented herself as an ordinary housewife simply wanting to make a difference in politics. (This appeal, LeBlanc notes, was unsuccessful; housewives found the politician unconvincing because “real” housewives don’t engage in politics. Housewives, she finds, are apolitical as part of their public identity as housewives [LeBlanc 1999, 73]).

I noticed a similar dynamic in my observation of the recycling organizations in Tsukuba. When I observed a meeting of the Tsukuba City Waste Reduction Promotion Committee, Mrs. Shōno, present as the representative of Creative Recycle, was one of only three women on the committee. She was mostly

silent during the discussion, offering her opinion only when asked directly. During a discussion about how to implement sorted collection of plastic containers and packaging, a researcher from one of Tsukuba's government research institutes stated that it would be very important to factor citizens' reactions into the plan – and turned to Mrs. Shōno to ask for her perspective. I found this exchange striking and instructive. In the context of municipal waste management, “citizen” (*shimin*) can be understood to mean housewives, the female citizens who undertake the majority of household waste separation. By addressing his question to Mrs. Shōno, the researcher conveyed that she was present at the meeting not only as a representative of one rather small recycling volunteer group, but also as a representative of Tsukuba citizens, that is, housewives. In 2016 as in 1933, household waste – a bridge between the private tasks of the housewife in the home and municipal policy in the public sphere – is one way to attain a prominent position in society while embracing the housewife identity.

Conclusion

This reduction and separation [of waste] cannot be accomplished without the conscientious effort of every housewife [*katei fujin*]. From this perspective, we have determined to make every effort to solve Tokyo's garbage problem, and urged the city authorities to cooperate with women, and have undertaken a joint movement.

Ichikawa Fusae, 1933

... Even if [men] have awareness [of reducing waste] it's only women who are doing the activities themselves. ... Well, men who go as far as making ... this kind of thing their job, that's something. No, this won't become a job for us, you know. Because it's not like we're getting paid. But, it is in my consciousness.

Shōno Takako, recycling volunteer (interview by the author, April 1, 2015)

As this dissertation has demonstrated, waste has played a significant part in mediating the roles of women in the Japanese nation-state. Household waste, fundamentally linked to the “feminine” sphere of the home and the kitchen as well as to public sanitation – a fundamental aspect of municipal governance – creates a direct link between the housewife and the nation-state, as shown in Chapters 2 and 3. The state has frequently sought to use this connection to further specific policies – thrift campaigns during the Taishō period (see Garon 1997), garbage reduction in the 1930s (see Chapter 1), scrap collection during the war years (see Chapter 2), and more recently efforts by local governments to use volunteer groups and NPOs to carry out waste reduction education campaigns. Just as the Tokyo Women's League to Purify City Politics chose to cooperate with the Tokyo City Government to enact their garbage campaign, waste reduction and recycling activists today frequently turn to local governments for support in achieving their goals.

This similarity is strikingly apparent when we analyze the two quotations juxtaposed at the beginning of this chapter. Shōno Takako, the housewife founder of the volunteer waste reduction organization Tsukuba Recycle Market, recounted the circumstances that led to the group's creation in terms very similar to those used by the members of the Tokyo Women's League to Purify City Politics in explaining their decision to start the 1933 Tokyo Garbage Campaign. Mrs. Shōno, after going on a study

tour of Tsukuba's waste management facilities and seeing their sorry state firsthand, decided to do something to help.

Before, it [the Sanitation Center] was a really dirty place. So then I thought, I want to do something – what can I do on my own? And then you know, housewives probably can't do anything with things they don't need anymore except throw them away, right? They don't have much knowledge [about recycling]. So, on the other hand, what can be done with unwanted things... wouldn't it be good to open them to everyone? To show them at someplace like a market, and have them taken by people who want them? ...That was the start of the Recycle Market. (interview by the author, March 4, 2016)

Mrs. Shōno approached the problem from her position as a housewife, and came up with a solution that even housewives who “don't have much knowledge” (*chie wa amari motanai*) could help with. She got together a group of her housewife friends and together they requested approval from the Tsukuba city government, which was granted (although the city could not offer financial support).

Similarly, in 1933 the members of the Tokyo Women's League to Purify City Politics went on a study tour of the Tokyo city waste disposal facilities at Fukagawa, and were appalled at what they saw. After a lengthy description of the filthy conditions of the facility, the anonymous authors of a *Fusen* article about the League's study tour concluded: “[...] no matter what, we women must intervene. That is the conclusion of today's study tour” (*Fusen* 7-6 1933). Soon after their visit, the League members came up with a plan to raise awareness about garbage reduction and correct separation among the city's housewives, and presented their “proposal from the women's side” to the Tokyo municipal government. As described in Chapter 1, their proposal was accepted, and the women's garbage campaign was considered a great success as both an educational movement and the beginning of a cooperative relationship between publicly-minded women and the city government.

Despite the many changes that Japan has undergone in the sixty years separating these events, these two women-led garbage reduction efforts have numerous parallels. Both began as efforts to resolve a municipal garbage problem from a housewife's perspective, using methods that would be easily accessible to women. In the case of the League's campaign in 1933, options for influencing the public consciousness were limited for women (even well-organized, well-educated, well-connected women like those in the League) who did not yet have the right to vote. Their campaign, organized by women and directed toward women, but using the clout and resources of the city government, was well-situated for attracting public attention, promoting both the city's garbage reduction goals and, implicitly, the legitimacy of women in public roles in close proximity to local government. Mrs. Shōno's grassroots

waste reduction effort, although less ambitious and smaller in scope, similarly relied on the support of the local government for its legitimacy. An institutional connection like the one Mrs. Shōno established with the Tsukuba city government is important for grassroots volunteer groups like Tsukuba Recycle Market, especially if they carry out events in public spaces. Mrs. Shōno recalled other grassroots flea markets and other events that failed because they failed to get the proper permits from the city – not because the city shut them down, but because there might be complaints from neighbors or passersby objecting to the unauthorized event, and city officials would have to ask the organizers to disband (interview by the author, January 31, 2018). The Tsukuba Recycle Market relies on their connection with the local government – without the connection of one city employee in the Environment Department whom she has known for many years, Mrs. Shōno explained, the group would not have been able to continue as long as it has.

On the other hand, this type of cooperative relationship with volunteers and citizen groups is also important for local governments. A senior official in the Tsukuba City Environment Department told me that raising awareness of garbage separation rules (especially when there are changes) is always a priority for his office, and they frequently rely on volunteers – whether members of NPOs or neighborhood associations – to help them distribute information and hold educational events (interview by the author, March 26, 2015). Promoting citizen participation and encouraging cooperation with citizen groups for the purpose of garbage reduction is also gaining popularity as official policy at the national level. In an interview, a senior manager in the Waste Management Research Center of the National Institute for Environmental Studies emphasized the role of citizens in efficient waste management – residents should be included in the decision-making process, and should study up on relevant issues in order to make an informed contribution. NPOs, he said, should take on a greater role in providing services, and local governments should encourage this in order to keep administrative costs down (interview by the author, May 20, 2015).

It is significant that the means by which women interested in resolving local garbage problems can achieve their goals have not changed much in over sixty years. Unlike the League members in 1933, Mrs. Shōno and her fellow housewives had the right to vote and to participate in politics at both the local and national levels. Despite this apparent freedom, however, significant barriers to women's entry into formal politics still exist. As LeBlanc (1999) explains, politics is seen as a man's realm; homemaking, seen as the proper realm for women, is conceived of as naturally apolitical. Mrs. Shōno, or Mrs. Terada, the founder of NPO Tsukuba Creative Recycle, might have attempted to resolve Tsukuba's garbage problems by campaigning for a seat on the city council based on the garbage issue. Alternatively, they might have directed their passion for waste reduction into a career in waste technology research, civil engineering, or public policy. However, for a variety of reasons shaped by history and enshrined in

contemporary social mores, these options were not readily accessible to them as women and housewives. Instead, they poured their energy and dedication into the unpaid, undervalued path of grassroots volunteer work. In an interview, Mrs. Shōno expressed this dynamic quite clearly, pointing out the difference between women and men with a passion for reducing waste:

Well, even if it's tough, there's nothing for it but to do it, right? But then it ends up being a woman's job. [...] It's mostly women. Men also have this feeling, but, actually, practically, they don't participate vigorously, proactively. [...] Because even if they have awareness [of reducing waste] it's only women who are doing the activities themselves. ... Well, men who go as far as making [...] this kind of thing their job, that's something. No, this won't become a job for us, you know. Because it's not like we're getting paid. (interview by the author, April 1, 2015)

Although she was proud of being a housewife and was diligent about her housewife duties (she left off her volunteer activities to return home every day by noon to prepare lunch for her retired husband and elderly mother), Mrs. Shōno was acutely aware of the inequalities between men and women that had limited her options in life. Numerous studies have shown that women's labor tends to be concentrated in sectors that are undervalued and under- or unpaid, and that sectors which increasingly employ women tend to become less valued over time (Fondas 1996, Reskin 1988). In the field of waste work, Fredericks (2009) describes the case of women trash workers in Dakar, who began their work as volunteers in the city's youth social movement; as these jobs became formalized, salaried, and more desirable, the women trash workers were laid off in great numbers to make way for men. In Japan, women formally employed in the waste management sector are extremely rare. As discussed in Chapter 3, although waste management is not tracked as a distinct field in Japanese labor statistics, jobs in fields associated with waste management such as garbage truck driver/waste collector, machinery operator at incineration or recycling facilities, or engineers, are overwhelmingly male-dominated (Statistical Handbook of Japan 2017). During my time researching waste management in Tsukuba City, the only women I encountered as professionals were administrative staff in the Environment Department of the City Office, or members of recycling and waste reduction volunteer organizations.

This stark gender division in professional waste work is indicative of the ideal roles for men and women, ideals linked to citizenship and national belonging in Japan. As many scholars have pointed out, the legacy of *ryōsai kenbo*, the good wife and wise mother ideal, casts a long shadow even in present day Japan (Uno 1993, Holloway 2010). Becoming a housewife remains the aspirational ideal for Japanese women, just as becoming a fulltime, salaried office worker remains the ideal for men (Goldstein-Gidoni 2017). To the extent that a woman or man fails to achieve this ideal – women by not getting married or

having children, men by failing to achieve stable employment – they may be marginalized, disdained or pitied by those around them. Mackie (2002) describes the Japanese “archetypal citizen” as “male, heterosexual, white-collar worker” (Mackie 2002, 202), and analyzes how diverging from this archetype on each axis leads to increasing marginalization. In the case of women, she notes that women’s lack of access to economic opportunities and political networks results in their marginalization:

Assumptions about women's place in the private sphere and men's place in the public sphere are reinforced by state institutions, policies, and practices which are implicated in the shaping of gender and class relations. Industry policy is generally seen to be 'gender-blind,' but the lack of policies to redress labour market inequalities relegates women to the most vulnerable positions. Women who are in marginal positions in the labour market are less likely to receive the social prestige which goes with participation in a fulltime, white-collar career position, will have correspondingly restricted networks, and may thus be marginalised in political discussions. (Mackie 2002, 205)

In this conceptualization, Mackie implies that women who were to participate in fulltime, white-collar career positions and have access to the corresponding networks would be less marginalized in political discussions, but the actual treatment of Japanese women who have attained this status in politics or business does not bear this out. Women who adhere more closely to the male archetype of the fulltime, salaried white-collar worker tend to be *more* marginalized politically and socially (if not economically). The rare women in upper management at large Japanese firms are frequently viewed as unlikeable and untrustworthy by both women and men employees:

The absence of women with authority in firms also influences female subordinates’ view of women in positions of authority as untrustworthy, rather than seeing them as role models or mentors. Some young women workers in cosmetics companies accepted gendered stereotypes, contrasting female bosses’ ostensibly “hysterical” and emotional treatment of workers with male bosses’ paternalistic and rational attitudes toward them. (Nemoto 2017)

As LeBlanc (1999) points out, Japanese women in politics often trade on their housewife identity, motherhood, or other traditionally feminine characteristics in their campaigns. Their participation in formal politics must be predicated on these feminine roles because in Japan, female citizenship is rooted in the housewife identity, linked to the ever-evolving good wife, wise mother ideal. (However, as LeBlanc notes, these tactics are not always successful because the ideal housewife is publicly apolitical.)

Good citizenship, for a Japanese woman, means prioritizing the household, caring for a husband and children, and sometimes engaging in apolitical social activities for the good of the community.

Hage (1998) differentiates between citizenship and national belonging by emphasizing that national belonging is a spectrum, not a binary:

One of the most sociologically unhelpful aspects of the usage of the formal conception of citizenship to refer to national belonging is that the either (a national)/or (not) logic it embodies, and which is uncritically taken on board by so many analysts, does not allow us to capture all the subtleties of the *differential modalities of national belonging* as they are experienced within society. (Hage 1998: 51)

One of these differential modalities is the distinction between “‘national belonging’ (those who are part of the national community), and ‘governmental belonging’ (those who are seen to have a ‘natural’ role in the management of the nation)” (Mackie 2002, 201). Mackie (2002), following Hage, argues that “citizenship is not a simple matter of a binary distinction between citizens and noncitizens, but rather a constellation of features which determine one's position on a spectrum of citizenship” (Mackie 2002, 201). Mackie argues that in Japan this spectrum is a vertical hierarchy with the male, white-collar worker at the top; the citizenship of others is diminished and marginalized to the extent that they deviate from this ideal. In contrast, I find it more useful to consider national belonging in Japan in terms of a gendered binary of ideals: the white-collar worker for men, and the full-time housewife for women. This binary is still hierarchical in that the ideal masculine citizen has access to political and economic capital, while the ideal feminine citizen does not; in Hage’s terms, both women and men possess national belonging, but only men have access to governmental belonging. However, it is a gendered binary rather than a singular hierarchy with men at the top because the pinnacle of citizenship for women and men is not the same. For a man, success in politics or business increases his standing in the national community and affirms his national belonging. For a woman, on the other hand, success in a white-collar career may result in increasing marginalization; her national belonging is called into question and her standing as a female citizen is diminished. A 2014 incident in the Tokyo Metropolitan Assembly demonstrates this amply. Shiomura Ayaka, a woman assembly member from the Your Party (Minna no Tō) political party, was addressing the assembly on the topic of the lack of public support for mothers and children in Tokyo when a male colleague, later identified as a member of the ruling Liberal Democratic Party, interrupted her by saying “Before you make accusations like that, you should hurry and get married yourself.” A second heckler (also from the LDP) chimed in with “Hey, why don’t you give birth to a baby yourself?” The interruptions were met with laughter from the majority male assembly (Osaki 2014). Although

Shiomura had attained the same level of political success as her male colleagues in the Tokyo Metropolitan Assembly, her political opinions (ironically, or aptly, regarding the institutional barriers discouraging women from becoming mothers) were belittled and dismissed because of her failure to achieve the ideal of female citizenship as a wife and mother.

This dissertation has analyzed the gendered nature of national belonging in Japan through the lens of waste by examining several relevant cases in modern history and in the present day. Chapter 1 discussed the 1933 garbage campaign (*gomi undō*) initiated by members of the League for Women's Suffrage, focusing on the ways in which the League leveraged garbage as a municipal problem into a social movement as a conscious political strategy, employing and transforming discourses about women to promote their goal of elevating the status of women in public life. For the city, collaboration with the women's group in the garbage movement not only helped to resolve the underlying problem by increasing citizens' awareness of correct waste separation, it also deflected public attention away from the city's responsibility for the lingering smoke problem in Fukagawa. This case highlights the myriad ways "waste" can be employed as a political and discursive tool, as well as the active role of the women's group in attempting to transform one basis for women's national belonging – cleaning and housekeeping – into a reason for women to access governmental belonging. Chapter 2 explored the shifting discourses and policies surrounding women's national belonging during the Asia-Pacific War by analyzing women's wartime waste reduction and scrap collection campaigns, both those initiated by women and those organized by state entities. These wartime waste campaigns reveal the contradictions – the state's desire to maintain the family system versus the necessity of deploying women's labor outside the home – and complexities – different groups of women had different motivations and aims that affected their decisions to cooperate with the state's wartime policies as well as the ways they chose to effect this cooperation – of both the wartime state's policies toward women and women's status in and relationship with the nation-state. Chapter 3 examined Japan's present-day municipal waste management system through a case study of Tsukuba City, with a focus on the ways that household waste work contributes to a binary system of gendered national belonging. My ethnographic fieldwork in Tsukuba showed that household waste work is still overwhelmingly performed by women, and is linked to the housewife ideal. Managing household waste is one of the most visible forms of housework as part of the public role of housewife, and, to the extent that the housewife is seen as the ideal form of Japanese womanhood, performing housekeeping tasks such as waste separation, can be seen as an expression of national belonging or citizenship for Japanese women. Chapter 4 discussed two volunteer waste reduction organizations in Tsukuba with whom I conducted interviews and participant observation studies. These volunteer activities, largely performed by women, are also linked to the housewife identity and can be seen as

gendered expressions of citizenship for women. Together, these cases reveal the complex ways that waste has mediated women's gendered national belonging historically and in the present day.

Bibliography

Almeida, Paul, and Linda Brewster Stearns. 1998. "Political Opportunities and Local Grassroots Environmental Movements: The Case of Minamata." *Social Problems* 45 (1): 37-60.

Ariyama, Yumiko. 2011. "'Tōkyō gomi sensō' sengen: umetate pinchi, chiji ugoku Shōwa 46nen 9gatsu 28nichi." *Asahi Doraku*. <http://doraku.asahi.com/earth/showashi/120924.html>.

Asahi Shinbun. May 4, 1933. "Sanagara no kemuri jigoku: Fukagawa ittai ni himei. Shi no jinkai shōkyakujō no baien ni kumin tō shinken'na chinjō."

Asahi Shinbun. May 13, 1933. "Gomi to chakasu, Fujin Shisei Jōka Renmei no menmen: Hana o tsumandeeta ketsuron."

Asahi Shinbun. June 10, 1938. "Kinzoku nara nandemo Jihen 1shūnen no ikko ippin ken'nō Ryokan ryōriten mo ichina."

Asahi Shinbun. July 9, 1938. "Katei no kyōryoku Atsumatta 'ikko ippin' baketsu, araioke tō ga mottomo ōi Jihen kinenbi no ken'nō."

Asahi Shinbun. July 20, 1938. "Kaidame no omei o susugu Keizai shūkan Kozori tatsu fujindan."

Asahi Shinbun. July 23, 1938. "Gaitō no muda sagashi ni gomi bako made kensa entenka Fujin dantai sō shutsudō."

Asahi Shinbun. August 31, 1938. "Jihen kinenbi Teito no haihin 20 man en Uriage o shōhei hogoin e kenkin."

Asahi Shinbun. September 6, 1938. "Ikko ippin no chūkan hōkoku."

Asahi Shinbun. August 20, 1939. "Oyoso kin ga tsuita haihin wa zenbu Aifu ga sōdōin de kaishū."

Asahi Shinbun. September 23, 1939. “Gofujin no saishinsa de haihin kara kingin Aifu kaiin no chūshutsu sagyō.”

Asahi Shinbun. April 18, 1941. “Yūryō tonarigumi no onna kumichōsan Gomi no genryō, kaishū undo e ‘kyōryoku’ o hyōgo ni danketsusuru zenkumiin.”

Ayres, Lioness. 2008. “Semi-Structured Interview.” In *The SAGE Encyclopedia of Qualitative Research Methods*, edited by Lisa M. Given, 810-811. Thousand Oaks, CA: SAGE Publications, Inc.

Bailey, Ian. 2002. “National adaptation to European integration: institutional vetoes and goodness-of-fit.” *Journal of European Public Policy* 9 (5): 791-811.

Ben-Ari, Eyal. 1990. “A Bureaucrat in Every Japanese Kitchen? On Cultural Assumptions and Coproduction.” *Administration & Society* 21(4): 472-492.

Bennett, Jane. 2004. “The force of things - Steps toward an ecology of matter.” *Political Theory* 32 (3): 347-372.

Bestor, Theodore C. 1989. *Neighborhood Tokyo*. Stanford: Stanford University Press.

Bestor, Theodore C. 2003. “Inquisitive Observation: Following Networks in Urban Fieldwork.” In *Doing Fieldwork in Japan*, edited by Victoria Lyon-Bestor, Patricia G. Steinhoff, and Theodore C. Bestor, 315-334. Honolulu: University of Hawaii Press.

Bestor, Theodore C., Patricia G. Steinhoff, and Victoria Lyon-Bestor. 2003. “Introduction: Doing Fieldwork in Japan.” In *Doing Fieldwork in Japan*, edited by Victoria Lyon-Bestor, Patricia G. Steinhoff, and Theodore C. Bestor, 1-17. Honolulu: University of Hawaii Press.

Brundtland, Gro Harlem. 1987. Address by Gro Harlem Brundtland, Chairman, at the Closing Ceremony of the Eighth and Final Meeting of the World Commission on Environment and Development, February 27, 1987, Tokyo, Japan.

Buckley, Sandra. 1996. “A Guided Tour of the Kitchen: Seven Japanese Domestic Tales.” *Environment and Planning D: Society and Space* 14 (4): 441-461.

- Bulkeley, Harriet, and Nicky Gregson. 2009. "Crossing the threshold: municipal waste policy and household waste generation." *Environment and Planning A* 41 (4): 929-945.
- Cooper, Timothy. 2010. "Burying the 'refuse revolution': the rise of controlled tipping in Britain, 1920-1960." *Environment and Planning A* 42: 1033-1048.
- Crang, Mike, Alex Hughes, Nicky Gregson, Lucy Norris, and Farid Ahamed. 2013. "Rethinking governance and value in commodity chains through global recycling networks." *Transactions of the Institute of British Geographers* 38 (1): 12-24.
- Cwiertka, Katarzyna. 2013. "Beyond the Black Market: Neighborhood Associations and Food Rationing in Postwar Japan." In *Japan Since 1945: From Postwar to Post-bubble*, edited by Christopher Gerteis and Timothy S. George, 89-106. London and New York: Bloomsbury.
- Doi, Mieko. 2011. "Wagakuni no kankyō kyōiku ni okeru ishiki to kōdō ni kansuru kiō kenkyū no keifu." *Hiroshima Daigaku Manejimento Kenkyū* 11: 99-110.
- Douglas, Mary. 1966. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. London: Routledge.
- Eto, Mikiko. 2010. "Women and Representation in Japan: The Causes of Political Inequality." *International Feminist Journal of Politics* 12 (2): 177-201.
- Evans, David. 2012. "Binning, gifting and recovery: the conduits of disposal in household food consumption." *Environment and Planning D Society & Space* 30 (6): 1123-1137.
- Fondas, Nanette. 1996. "Feminization at work: Career implications." In *The Boundaryless Career: A New Employment Principle for a New Organizational Era*, edited by Michael B. Arthur and Denise M. Rousseau, 282-293. New York: Oxford University Press.
- Fredericks, Rosalind. 2009. "Wearing the pants: The gendered politics of trashwork in Senegal's capital city." *HAGAR Studies in Culture, Polity and Identities* 9 (1): 121-148.

Frühstück, Sabine. 2014. “‘The spirit to take up a gun’: militarizing gender in the Imperial army.” In *Gender, Nation and State in Modern Japan*, edited by Andrea Germer, Vera Mackie and Ulrike Wöhr, 163-179. Oxon and New York: Routledge.

Funabashi, Harutoshi. 2011. “The duality of social systems and the environmental movement in Japan.” In *East Asian Social Movements*, edited by Jeffrey Broadbent and Vicky Brockman, 37-61. New York: Springer.

Fusen 7-6. 1933. “Gomi yakiba kengaku.” *Fusen* 7 (6): 30-33.

Fusen 7-7. 1933a. “Tōkyōshi tōkyoku to teikeinari: Jinkai mondai ni noridasu Fujin Shisei Jōka Renmei.” *Fusen* 7 (7): 14.

Fusen 7-7. 1933b. “Seisōka no seisō.” *Fusen* 7 (7): 44-45.

Fusen 7-8. 1933. “Gomi no undō hōkokukai.” *Fusen* 7 (8): 13-19.

Fusen 7-9. 1933. “Gomi no undō sono go.” *Fusen* 7 (9): 24.

Garon, Sheldon. 1997. *Molding Japanese Minds: The State in Everyday Life*. Princeton: Princeton University Press.

Garon, Sheldon. 2000. “Luxury is the Enemy: Mobilizing Savings and Popularizing Thrift in Wartime Japan.” *The Journal of Japanese Studies* 26 (1): 41-78.

Germer, Andrea, Vera Mackie and Ulrike Wöhr. 2014. “Introduction: gender, nation and state in modern Japan.” In *Gender, Nation and State in Modern Japan*, edited by Andrea Germer, Vera Mackie and Ulrike Wöhr, 1-24. Oxon and New York: Routledge.

Gille, Zsuzsa. 2007. *From the Cult of Waste to the Trash Heap of History: the Politics of Waste in Socialist and Postsocialist Hungary*. Bloomington and Indianapolis: Indiana University Press.

Gille, Zsuzsa. 2010. "Actor networks, modes of production, and waste regimes: reassembling the macro-social." *Environment and Planning A* 42 (5): 1049-1064.

Gluck, Carol. 1985. *Japan's Modern Myths: Ideology in the Late Meiji Period*. Princeton: Princeton University Press.

Goldstein-Gidoni, Ofra. 2012. *Housewives of Japan: An Ethnography of Real Lives and Consumerized Domesticity*. New York: Palgrave Macmillan.

Goldstein-Gidoni, Ofra. 2017. "'The Joy of Normal Living' as the Promise of Happiness for Japanese Women and their Families." *Asian Studies Review* 41(2): 281-298.

Gordon, Andrew. 2003. "Studying the Social History of Contemporary Japan." In *Doing Fieldwork in Japan*, edited by Victoria Lyon-Bestor, Patricia G. Steinhoff, and Theodore C. Bestor, 261-273. Honolulu: University of Hawaii Press.

Gordon, Andrew. 2009. *A Modern History of Japan: From Tokugawa Times to the Present*. Second edition. New York and Oxford: Oxford University Press.

Gregson, Nicky, Alan Metcalfe and Louise Crewe. 2007. "Identity, mobility, and the throwaway society." *Environment and Planning D Society & Space* 25 (4): 682-700.

Haddad, Mary Alice. 2011. "A State-in-Society Approach to the Nonprofit Sector: Welfare Services in Japan." *Voluntas* 22: 26-47.

Hage, Ghassan. 1998. *White Nation: Fantasies of White Supremacy in a Multicultural Society*. Sydney: Pluto Press.

Haikibutsu Gakkai Gomi Bunka Kenkyū Bukai. 2006. *Gomi no bunka, shinyō no bunka*. Tokyo: Gijutsudō Shuppan.

Haikibutsu Gakkai. 2003. *Shinpan gomi dokuhon*. Tokyo: Chūōhōki Shuppansha.

Hamilton, David P. 1992. "Has Tsukuba Put Its Worst Days Behind It?" *Science* 258: 572.

- Hashimoto Seiji, Moriguchi Yuichi, Tasaki Tomohiro, and Yagishita Masaharu. 2006. "Junkangata shakaizō no hikaku bunseki." *Haikibutsu Gakkai Ronbunshi* 17 (3): 204-218.
- Hastings, Sally Ann. 1995. *Neighborhood and Nation in Tokyo, 1905-1937*. Pittsburgh: University of Pittsburgh Press.
- Havens, Thomas R. 1978. *Valley of Darkness: The Japanese People and World War Two*. New York: W.W. Norton & Company, Inc.
- Hawkins, Gay. 2011. "Packaging water: plastic bottles as market and public devices." *Economy and Society* 40 (4): 534-552.
- Hayakawa, Noriyo. 1995. "Feminism and Nationalism in Japan, 1868-1945." *Journal of Women's History* 7 (4): 108-119.
- Hearn, Jeff, Elżbieta H. Oleksy, and Dorota Golańska. 2010. "Introduction: The limits of gendered citizenship." In *The Limits of Gendered Citizenship: Contexts and Complexities*, edited by Jeff Hearn, Elżbieta H. Oleksy, and Dorota Golańska, 7-49. New York: Routledge.
- Hesse-Biber, Sharlene Nagy. 2008. "Feminist Research." In *The SAGE Encyclopedia of Qualitative Research Methods*, edited by Lisa M. Given, 336-338. Thousand Oaks, CA: SAGE Publications, Inc.
- Hezri, A. A. 2010. "Toward 3R-Based Waste Management: Policy Change in Japan, Malaysia and the Philippines." In *3R Policies for Southeast and East Asia*, edited by M. Kojima, 274-290. Jakarta: Economic Research Institute for ASEAN and East Asia.
- Holliman, Jonathan. 1990. "Environmentalism with a Global Scope." *Japan Quarterly* 37 (3): 284-290.
- Holloway, Susan D. 2010. *Women and Family in Contemporary Japan*. New York: Cambridge University Press.
- Hosoda, Eiji. 2007. "International aspects of recycling of electrical and electronic equipment: material circulation in the East Asian region." *Journal of Material Cycles and Waste Management* 9 (2): 140-150.

Ibaraki Prefectural Government. 2013. *Tsukuba Science City*.

Ichikawa Fusae. 1933. "Jichisei e no fujin no kyōryoku." *Fusen* 7 (7): 4-5.

Ikuta Hanayo. 1933. "Machi no onna toshite ittemita 'Oharu-san no yume.'" *Fusen* 7 (8): 20-21.

Ishii, Haruyoshi. 2006. "Kiroku ni nokoshitai rekishi (San) Suginami seisō kōjō kensetsu o meguru 'Tokyo gomi sensō.'" *Suginami no rekishi o manabu*.

http://www.suginamigaku.org/content_disp.php?c=4500be0e60fc3.

Ito, Ruri. 2005. "Crafting Migrant Women's Citizenship in Japan: Taking 'Family' as a Vantage Point." *International Journal of Japanese Sociology* 14: 52-69.

Japan Containers And Packaging Recycling Association. 2008. "Kōeki dantai hōjin nihon yōkihōsō risaikuru kyōkai." <http://www.jcptra.or.jp/index.html>.

Josei Tenbō. August 1938. "Machi no muda o hirou." *Josei Tenbō* 12 (8) (August 1938): 12.

Kageyama, Ikuyo. 1941. "Gomi genryō undo." *Asahi Shinbun*, 24 March 1941.

Kaneko Shigeri. 1933a. "Oharu-san no yume." *Fusen* 7 (7): 15-19.

Kaneko Shigeri. 1933b. "Gomi no eiga o utsusu." *Fusen* 7 (11): 17-21.

Kaneko Shigeri. 1934. "Seisō angya kikō." *Fusen* 8 (7): 20-30.

Kaneko, Yuko. 2010. "Role of Citizens in Environmental Conservation: The Case of the Yokosuka City; A Statistical Analysis." *Public Organization Review* 10: 17-30.

Kanō Mikiyo. (1987) 1995. *Onnatachi no 'jūgo.'* Revised edition. Tokyo: Inpakuto Shuppansha.

Kanzaki Hiroshi, and Terakado Yukio. 2001. "Risaikuru kōdō ga gomi sosei ni oyobosu eikyō nikansuru ichi kōsatsu: katei gomi o chūshin ni." *Chiba daigaku kyōiku gakubu kenkyū kiyō II, jinbun shakai kagakuhen* 49: 135-143.

Katzoff, Beth Sara. 2000. "For the Sake of the Nation For the Sake of Women: The Pragmatism of Japanese Feminisms in the Asia-Pacific War (1931-1945)." PhD diss., Columbia University.

Kawai, Kosuke, and Tomohiro Tasaki. 2013. "Total MSW generation and MSW generation per capita." *Factsheets Series on 3R Policy Indicators*.

Kirby, Peter Wynn. 2011. *Troubled Natures: Waste, Environment, Japan*. Honolulu: University of Hawai'i Press.

Kojima Eiko, Tajima Ryo, Ju Munsol, Sato Masahiro, Matsukami Hidenori, and Jimbo Yusuke. 2015. "Kyōjo to kōjo ni yoru kōreisha no gomidashi shien seido: Riyō ikō ni eikyōsuru shinriteki gen'in." *Haikibutsu Shigen Junkan Gakkai Ronbunshi* 26: 117-127.

Koyama Shizuko. 1991. *Ryōsai kenbo to iu kihan*. Tokyo: Keisō Shobō.

Koyama, Shizuko. 1994. "The 'Good Wife and Wise Mother' Ideology in Post-World War I Japan." Translated by Gabriel A. Sylvain. *U.S.-Japan Women's Journal English Supplement* 7: 31-52.

Koyama Shizuko. 1999. *Katei no seisei to josei no kokuminka*. Tokyo: Keisō Shobō.

Koyama, Shizuko. 2014. "Domestic roles and the incorporation of women into the nation-state: the emergence and development of the 'good wife, wise mother' ideology." In *Gender, Nation and State in Modern Japan*, edited by Andrea Germer, Vera Mackie and Ulrike Wöhr, 85-100. Oxon and New York: Routledge.

Kurisu, Kiyo H., and Ana Paula Bortoleto. 2011. "Comparison of waste prevention behaviors among three Japanese megacity regions in the context of local measures and socio-demographics." *Waste Management* 31 (7): 1441-1449.

Kymlicka, Will. 1995. *Multicultural Citizenship: A Liberal Theory of Minority Rights*. New York: Oxford University Press.

Larzalere, Norma Sakamoto. 2006. "Making A Place for Themselves: Pioneer Housewives in Tsukuba Science City, Japan." PhD diss., University of Kansas.

LeBlanc, Robin May. 1994. "Homeless as citizens: The political world of the Japanese housewife." PhD diss., University of Oklahoma.

LeBlanc, Robin M. 1999. *Bicycle Citizens: The Political World of the Japanese Housewife*. Berkeley and Los Angeles: University of California Press.

Lepawsky, Josh, and Charles Mather. 2011. "From beginnings and endings to boundaries and edges: rethinking circulation and exchange through electronic waste." *Area* 43 (3): 242-249.

Lister, Ruth. 1990. "Women, Economic Dependency and Citizenship." *Journal of Social Policy* 19 (4): 445-67.

Lister, Ruth. 1993. "Tracing the contours of women's citizenship." *Policy & Politics* 21 (1): 3-16.

Lister, Ruth. 2003. *Citizenship: Feminist Perspectives*. 2nd ed. Basingstoke: Palgrave.

Lockyer, Sharon. 2008. "Textual Analysis." In *The SAGE Encyclopedia of Qualitative Research Methods*, edited by Lisa M. Given, 865-866. Thousand Oaks, CA: SAGE Publications, Inc.

Lybecker, Donna L., Mark K. McBeth, and Elizabeth Kusko. 2012. "Trash or treasure: recycling narratives and reducing political polarisation." *Environmental Politics* 22 (2): 312-332.

Mackie, Vera. 2002. "Embodiment, citizenship and social policy in contemporary Japan." In *Family and Social Policy in Japan: Anthropological Approaches*, edited by Roger Goodman, 200-229. Cambridge: Cambridge University Press.

Mackie, Vera. 2003. *Feminism in Modern Japan: Citizenship, Embodiment and Sexuality*. Cambridge: Cambridge University Press.

Maeda, Hiroe and Yukio Hirose. 2009. "Expectation of empowerment as a determinant of citizen participation in waste management planning." *Japanese Psychological Research* 51 (1): 24-34.

Marshall, T.H. 1950. *Citizenship and Social Class, and Other Essays*. Cambridge: Cambridge University Press.

Mathias, Regine. 1999. "Women and the war economy in Japan." In *Japan's War Economy*, edited by Erich Pauer, 65-84. London and New York: Routledge.

Matsufuji Yasushi. 2003. "Gomi shori no rekishi to gomi mondai." In *Shinpan gomi dokuhon*, edited by Haikibutsu Gakkai, 1-40. Tokyo: Chūōhōki Shuppansha.

Matsui Yasuhiro, Ōsako Masahiro, and Tanaka Masaru. 2001. "Gomi no bunbetsu kōdō to sono ishiki kōzō moderu ni kansuru kenkyū." *Doboku gakkai ronbunshū* 692: 73-81.

Matsui, Yasuhiro, Masaru Tanaka, and Masahiro Ohsako. 2007. "Study of the effect of political measures on the citizen participation rate in recycling and on the environmental load reduction." *Waste Management* 27 (8): S9-S20.

Matsumoto, Ken'ichi, and Misaki Nakajima. 2013. "Household Waste Reduction Effect of Sorted Collection of Recyclable Waste in Japan." *Journal of Environmental Science and Engineering B* 2 (3B): 135-141.

Matsumoto, Shigeru. 2011. "Waste separation at home: Are Japanese municipal curbside recycling policies efficient?" *Resources, Conservation and Recycling* 55(3): 325-334.

Melosi, Martin V. 2005. *Garbage in the Cities: Refuse, Reform and the Environment*. Revised edition. Pittsburgh: University of Pittsburgh Press.

Metcalfe, Alan, Mark Riley, Stewart Barr, Terry Tudor, Guy Robinson, and Steve Guilbert. 2013. "Food waste bins: bridging infrastructures and practices." *The Sociological Review* 60 (2): 135-155.

Ministry of the Environment (Japan). 2006. "Sweeping Policy Reform Towards a 'Sound Material-Cycle Society' Starting from Japan and Spreading Over the Entire Globe: -the '3R' Loop Connecting Japan with Other Countries."

Ministry of the Environment (Japan). 2007. "Annual Report on the Environment and the Sound Material-Cycle Society in Japan 2007."

Ministry of the Environment (Japan). 2008. “A Sound Material-Cycle Society through the Eyes of Hokusai.”

Ministry of the Environment (Japan). 2010. “Establishing a sound material-cycle society: Milestone toward a sound material-cycle society through changes in business and life styles.”

Ministry of the Environment (Japan). 2012a. "Annual Report on Environmental Statistics."
http://www.env.go.jp/en/statistics/contents/index_e.html.

Ministry of the Environment (Japan). 2012b. “Solid Waste Management and Recycling Technology of Japan: Toward a Sustainable Society.”

Ministry of the Environment (Japan). 2013. “Fundamental Plan for Establishing a Sound Material-Cycle Society.” <http://www.env.go.jp/en/focus/docs/files/20131018-79.pdf>.

Miyake, Yoshiko. 1991. “Doubling Expectations: Motherhood and Women’s Factory Work Under State Management in Japan in the 1930s and 1940s.” In *Recreating Japanese Women, 1600-1945*, edited by Gail Lee Bernstein, 267-295. Berkeley and Los Angeles: University of California Press.

Mizoiri Shigeru. 1988. *Gomi no hyakunenshi: Shori gijutsu no utsuri kawari*. Tokyo: Gakugei Shorin.

Mizoiri Shigeru. 2007. *Meiji Nippon no gomi taisaku: Sōjihō wa dono yō ni shite seiritsushita ka*. Tokyo: Risaikuru Bunkasha.

Mizoiri Shigeru. 2009. *Haikibutsu hōsei: Hanseiki no hensen*. Tokyo: Risaikuru Bunkasha.

Mizoiri Shigeru. 2010. “Dainijitaisenka no 3R – senjika no gomi, shigen kaishū no jissō.” In “Ajia shokokutō e no Nihon no 3R taiken no iten sokushin ni kansuru kenkyū” compiled by Yagi Yoshio, Ohsawa Masaaki, and Yamamoto Kohei, 137-166. Research report submitted to the Ministry of Environment (Japan).

Mizoiri Shigeru. 2012. “Taishō matsu kara Shōwa shoki ni kakete no Tōkyōfu Shibuya-chō to Meguro-chō no gomi sensō: Meiwaku shisetsu no ritchi ni kansuru kōsatsu.” *Haikibutsu shigen junkan gakkai ronbunshi* 23 (3): 125-137.

Molony, Barbara. 2011. "From 'Mothers of Humanity' to 'Assisting the Emperor': Gendered Belonging in the Wartime Rhetoric of Japanese Feminist Ichikawa Fusae." *Pacific Historical Review* 80 (1): 1-27.

Morris-Suzuki, Tessa. 1994. *The Technological Transformation of Japan: From the Seventeenth to the Twenty-first Century*. Cambridge: Cambridge University Press.

Munday, Jennie. 2009. "Gendered Citizenship." *Sociology Compass* 3 (2): 249–266.

Muta, Kazue. 1994. "Images of the Family in Meiji Periodicals: The Paradox Underlying the Emergence of the 'Home.'" Translated by Marcella S. Gregory. *U.S.-Japan Women's Journal English Supplement* 7: 53-71.

Na, Liu. 2009. "Junkangata shakai no tame no risaikuru no genjō: Nihon to Chūgoku no hikaku." *Chiiki Seisaku Kenkyū* 12(1): 111-130.

Nakano, Lynne Y. 2005. *Community Volunteers in Japan: Everyday Stories of Social Change*. London: Routledge.

Narita, Ryūichi. 1998. "Women in the Motherland: Oku Mumeo Through Wartime and Postwar." In *Total War and 'Modernization,'* edited by Yasushi Yamanouchi, J. Victor Koschmann, and Ryūichi Narita, 137-158. Ithaca: Cornell East Asia Series.

Negishi Yukio and Yuzawa Akira. 2003. "Katei gomi sakugen ni muketa shōhisha no genjō ishiki to kyōryoku ishiki ni kansuru kentō." *Kankyō Jōhō Kagaku Ronbunshū* 17: 283-288.

Nemoto, Kumiko. 2017. "Why gender inequality persists in corporate Japan." *Work in Progress*, October 3, 2017. <https://workinprogress.oowsection.org/2017/10/03/why-gender-inequality-persists-in-corporate-japan/>

Nishikawa, Yūko. 1997. "Japan's Entry into War and the Support of Women." Translated by William Gardner and Brett de Bary. *U.S.-Japan Women's Journal English Supplement* 12: 48-83.

- Nishio, Chizuru, and Toshie Takeuchi. 2005. "Factors of household recycling and waste reduction behavior." *Asia Pacific Advances in Consumer Research* 6: 46-51.
- Noguchi, Mary Goebel. 1992. "The Rise of the Housewife Activist." *Japan Quarterly* 39 (3): 339-352.
- O'Brien, Martin. 1999. "Rubbish values: Reflections on the political economy of waste." *Science as Culture* 8 (3): 269-295.
- O'Brien, Martin. 2008. *A Crisis of Waste?: Understanding the Rubbish Society*. New York: Routledge.
- O'Brien, Martin. 2012. "A 'lasting transformation' of capitalist surplus: from food stocks to feedstocks." *The Sociological Review* 60 (S2): 192-211
- Ogasawara, Yuko. 1998. *Office Ladies and Salaried Men: Power, Gender, and Work in Japanese Companies*. Berkeley and Los Angeles: University of California Press.
- Ohnuma, Susumu, Yukio Hirose, Kaori Karasawa, Kayo Yorifuji, and Junkichi Sugiura. 2005. "Why do residents accept a demanding rule? Fairness and social benefit as determinants of approval of a recycling system." *Japanese Psychological Research* 47(1): 1-11.
- Okina, Kunio, Masaaki Shirakawa, and Shigenori Shiratsuka. "The asset price bubble and monetary policy: Japan's experience in the late 1980s and the lessons." *Monetary and Economic Studies (Special Edition)* 19 (2): 395-450.
- Oldenziel, Ruth, and Heike Weber. 2013. "Introduction: Reconsidering Recycling." *Contemporary European History* 22 (Special Issue 03): 347-370.
- Oldenziel, Ruth, and Milena Veenis. 2013. "The Glass Recycling Container in the Netherlands: Symbol in Times of Scarcity and Abundance, 1939–1978." *Contemporary European History* 22 (Special Issue 03): 453-476.
- Osaki, Tomohiro. 2014. "Female Your Party member interrupted by sexist heckles." *The Japan Times*, June 19, 2014. <https://www.japantimes.co.jp/news/2014/06/19/national/politics-diplomacy/female-your-party-member-interrupted-by-sexist-heckles/#.W3-yAbiRU2w>

Osawa, Mari. 2002. "Twelve million full-time housewives: The gender consequences of Japan's postwar social contract." *Social Contracts Under Stress*. New York: Russell Sage Foundation: 255-277.

Otake, Tomoko. 2014. "Over 1 in 10 men have experienced 'paternity harassment': survey." *The Japan Times*, January 24, 2014. <https://www.japantimes.co.jp/news/2014/01/24/national/social-issues/paternity-leave-harassment-revealed-in-union-survey/#.W3-zuriRU2w>

Pateman, Carole. 1985. "Women and democratic citizenship." *The Jefferson Memorial Lectures at the University of California*.

Pateman, Carole. 1989. *The Disorder of Women: Democracy, Feminism and Political Theory*. Cambridge: Polity Press.

Peek, Katie. 2013. "How It Works: Inside The Machine That Separates Your Recyclables." *Popular Science*, August 28, 2013. <https://www.popsci.com/technology/article/2013-07/how-it-works-recycling-machines-separate-junk-type>

Pekkanen, Robert J., Yutaka Tsujinaka, and Hidehiro Yamamoto. 2014. *Neighborhood Associations and Local Governance in Japan*. New York: Routledge.

Pekkanen, Robert. 2006. *Japan's Dual Civil Society: Members Without Advocates*. Stanford: Stanford University Press.

Perry, Mark, Oskar Juhlin, and Daniel Normark. 2010. "Laying waste together: the shared creation and disposal of refuse in a social context." *Space and Culture* 13 (1): 75-94.

Reno, Joshua. 2009. "Your Trash Is Someone's Treasure: The Politics of Value at a Michigan Landfill." *Journal of Material Culture* 14 (1): 29-46.

Reskin, Barbara F. 1988. "Bringing the Men Back In: Sex Differentiation and the Devaluation of Women's Work." *Gender & Society* 2 (1): 58-81.

Rosenbluth, Frances McCall. 2007. *The Political Economy of Japan's Low Fertility*. Stanford: Stanford University Press.

Rosenbluth, Frances, and Michael F. Thies. 2002. "The political economy of Japanese pollution regulation." *American Asian Review*, 20 (1): 1-32.

Sachs, Noah. 2006. "Planning the funeral at the birth: Extended producer responsibility in the European Union and the United States." *Harvard Environmental Law Review* 30: 51-98.

Schnurer, Helmut. 2002. "German Waste Legislation and Sustainable Development: Development of Waste Legislation in Germany towards a sustainable closed Substance Cycle." Workshop organized by the Alexander von Humboldt Foundational, the International Institute for Advance Studies (IIAS). Kyoto, Japan.

Shibata, Teruyoshi. 2001. "Seijiteki funsō katei ni okeru masu medhia no kinō 2 kan: 'Tōkyō gomi sensō' o jirei ni." *Hokudai Hōgaku Ronshū* 52(2): 143-171.

Siim, Birte. 2000. *Gender and Citizenship: Politics and Agency in France, Britain and Denmark*. Cambridge: Cambridge University Press.

Siniawer, Eiko Maruko. 2014. "'Affluence of the Heart': Wastefulness and the Search for Meaning in Millennial Japan." *The Journal of Asian Studies* 73: 165-186.

Siniawer, Eiko Maruko. 2018. *Waste: Consuming Postwar Japan*. Ithaca and London: Cornell University Press.

"Statistical Handbook of Japan 2017." Statistics Bureau, Ministry of Internal Affairs and Communications. <http://www.stat.go.jp/english/data/handbook/c0117.htm>

Strasser, Susan. 1999. *Waste and Want: A Social History of Trash*. New York: Metropolitan Books.

Suzuki Yūko. 1986. *Feminizumu to sensō: fujin undōka no sensō kyōryoku*. Tokyo: Marujusha.

Taguchi Masaki. 2007. *Gomi shakaigaku kenkyū: Watashitachi wa gomi mondai to dō mukiattekita ka?* Tokyo: Jichitai Kenkyūsha.

Takahashi Wakana, Ito Shunsuke, and Tojo Naoko. 2013. "Suweedden no katei ni okeru gomi bunbetsu risaikuru no jittai haaku chōsa: butsuriteki kankyō, jendaa, chishiki to no kanren ni chakumokushite." *Utsunomiya Daigaku Kokusai Gakubu Kenkyū Ronshū* 36: 1-16.

Takase Kōji, Kondō Yasuyuki, and Washizu Ayu. 2006. "Haikibutsu sangyō renkan moderu ni yoru shōhisha kōdō no bunseki: shotoku to seikatsu jikan o kōryōshita kankyō fuka no keisoku." *Nihon LCA Gakkaishi* 2(1): 48-55.

Tamanoi, Mariko Asano. 2009. "Suffragist Women, Corrupt Officials, and Waste Control in Prewar Japan: Two Plays by Kaneko Shigeri." *The Journal of Asian Studies* 68 (03): 805-834.

Tamanoi, Mariko Asano. 2012. "Reviewed Work(s): Troubled Natures: Waste, Environment, Japan by Peter Wynn Kirby." *Asian Ethnology* 71 (2): 291-293.

Tanaka, Masaru. 1999. "Recent trends in recycling activities and waste management in Japan." *Journal of Material Cycles and Waste Management* 1: 10-16.

Tanaka, Masaru. 2007. "Waste management for a sustainable society." *Journal of Material Cycles and Waste Management* 9: 2-6.

Tasaki, Tomohiro, Hajime Yamakawa, and Daisuke Numata. 2011. "Citizen Attitude and Policy for 3R (Reduce, Reuse, and Recycle) Behaviour in Japan." In *Edmonton Waste Management Centre of Excellence Conference*, Edmonton, Alberta, Canada.

Tasaki, Tomohiro. 2009. "3R • haikibutsu kenkyū no tōtatsuten to kongo." *Kankyō Kagakkaishi* 22 (2): 119-131.

Terazono, Atsushi, Aya Yoshida, Jianxin Yang, Yuichi Moriguchi, and Shin'ichi Sakai. 2004. "Material cycles in Asia: especially the recycling loop between Japan and China." *Journal of Material Cycles and Waste Management* 6 (2): 82-96.

Thompson, Michael. 1979. *Rubbish Theory: The Creation and Destruction of Value*. Oxford and New York: Oxford University Press.

Tokyo Sanitation Bureau. 2000. *Tōkyōto seisō jigyō hyakunenshi*. Tokyo: Tokyo Sanitation Bureau General Affairs Department [Tōkyōto seisōkyoku sōmubu sōmuka].

Tsukuba City. 2010. *Seisō jigyō no aramashi: The outline of waste management 2010*.

Tsukuba City. 2013. "Tsukuba-shi ippan haikibutsu (gomi) shori kihon keikaku (Heisei 22nendo-Heisei 31nendo) Heisei 25nendo shūseiban. [Tsukuba City Fundamental Plan for General Waste (Garbage) Management for 2010-2019, 2013 Revised Edition]."

Tsukuba City. 2017. *Tōkei Tsukuba 2016* (2016 Statistical Data).
<http://www.city.tsukuba.ibaraki.jp/14278/14279/14412/010572.html>.

Tsunematsu, Naomi. 1994. "Japanese women's wartime patriotic organizations and postwar memoirs: Reality and recollection." Master's thesis, University of Arizona.

Ueno, Chizuko. 2004. *Nationalism and Gender*. Translated by Beverly Yamamoto. Melbourne: Trans Pacific Press.

Uno, Kathleen S. 1993. "The Death of 'Good Wife, Wise Mother'?" In *Postwar Japan as History*, edited by Andrew Gordon, 293-322. Berkeley and Los Angeles: University of California Press.

Urabe Takeo and Inamura Mitsuo. 2006. "Nippon no haikibutsu kenkyū no rekishi 1920 nen kara 1970 nengoro ni kakete." *Haikibutsu Gakkaishi* 17 (6): 360-366.

Walby, Sylvia. 1994. "Is citizenship gendered?" *Sociology* 28 (2): 379-395.

Weber, Heike. 2013. "Towards 'Total' Recycling: Women, Waste and Food Waste Recovery in Germany, 1914–1939." *Contemporary European History* 22 (Special Issue 03): 371-397.

Wilson, Sandra. 2006. "Family or state?: Nation, war, and gender in Japan, 1937–45." *Critical Asian Studies* 38 (2): 209-238.

Yagai, Yuzo. 2015. "Recycling scheme of a WEEE in Japan." Office of Sound Material-Cycle Society and Office of Recycling Promotion, Waste Management and Recycling Department, Ministry of the Environment. <https://www.env.go.jp/en/focus/docs/files/20151112-96.pdf>

Yagi Yoshio. 2006. "Sengo no haikibutsu gyōsei no hensen ni tsuite." *Haikibutsu Gakkaishi* 17 (6): 349-359.

Yagishita Masaharu, Ishikawa Masanobu, Hirose Yukio, Sugiura Junkichi, Nishimura Kazuhiko, Wakuta Yukihiro, Okayama Tomoko, Mizuno Yoko, Maeda Hiroe, and Matsuno Shotaro. 2004. "Shimin sankā ni yoru junkangata shakai no sōsei o mezashita suteeku horudaa kaigi no hyōka." *Shakai Gijutsu Kenkyū Ronbunshū* 2: 49-58.

Yamamoto Kōhei. 2003. "Gomi to risaikuru no hōseido." In *Shinpan gomi dokuhon*, edited by Haikibutsu Gakkai, 41-78. Tokyo: Chūōhōki Shuppansha.

Yamamoto Kōhei. 2008. "3R ni okeru shimin katsudō no hensen to seisaku keisei ni okeru yakuwari." *Heisei 20 nendo haikibutsu shoritō kagaku kenkyū hōkokusho "Nippon no 3R seido gijutsu keiken no hensen ni kansuru kenkyū"* (K2019).

Yamanouchi, Yasushi. 1998. "Total War and System Integration: A Methodological Introduction." In *Total War and 'Modernization,'* edited by Yasushi Yamanouchi, J. Victor Koschmann, and Ryūichi Narita, 1-39. Ithaca: Cornell East Asia Series.

Yoshida, Fumikazu. 1999. "The Political Economy of Waste Management in Japan." *Economic Journal of Hokkaido University* 28: 1-27

Yuval-Davis, Nira, and Pnina Werbner. 1999. *Women, Citizenship and Difference*. London: Zed Books.

Zimring, Carl A. 2012. "Introduction." In *Encyclopedia of Consumption and Waste: The Social Science of Garbage*, edited by William L. Rathje and Carl A. Zimring, xxv-xxvii. Thousand Oaks: SAGE Publications.

Appendix 1. List of interviews and fieldwork observations of Tsukuba waste and recycling organizations

Date/Time	Organization/Position of Interviewee	Location	Type of fieldwork	Method of data collection
2015-02-17 13:00-15:00	Morinosato Neighborhood Association Chairman	Morinosato Neighborhood Association office	Semi-structured interview	Notes, audio recording
2015-03-25 12:45-17:00	NPO Tsukuba Creative Recycle ²⁹ Representative Shōno Takako	Tsukuba Creative Recycle, interview at a local cafe	Observation of shop, semi-structured interview	Notes, audio recording, photographs
2015-03-26 9:00-10:15	Tsukuba City Environment and Living Department Head	Tsukuba City Office	Semi-structured interview	Notes, audio recording
2015-03-26 13:30-15:30	National Institute of Advanced Industrial Science and Technology (AIST) Environment Management Technology Research Institute, Absorption & Decomposition Technology Research Group Group Leader	AIST Headquarters	Semi-structured interview, tour of AIST waste facilities	Notes, audio recording, photographs
2015-03-27 14:00-15:30	Tsukuba Urban Development Inc. Creo Square (shopping center) Operation Division Manager	Tsukuba Creo Square, Q't	Semi-structured interview, tour of Creo Square waste facilities	Notes, audio recording, photographs
2015-03-30 14:00-15:30	Tsukuba University Facilities Manager	Tsukuba University Facilities Management Office	Semi-structured interview, tour of Tsukuba University waste facilities	Notes, audio recording, photographs
2015-04-10 14:00-15:15	Tsukuba University “Grass roots” student environmental organization member (Tsukuba University master’s student)	Tsukuba University	Semi-structured interview, observation of group’s activities	Notes, audio recording, photographs
2015-04-14	Uesu Yamaoka ³⁰ , Inc. (used cloth recycling company) President	Uesu Yamaoka, Inc.	Semi-structured interview, tour of facilities	Notes, audio recording, photographs

²⁹ Only the first interaction with NPO Tsukuba Creative Recycle is listed here; further observations and interviews are listed in Appendix 5 and described in Chapter 4.

³⁰ Because the name of the company is also the family name of the company’s founder and president, the company name listed here is a pseudonym.

11:00-12:30				
2015-04-17 14:00-16:00	Tsukuba Clean Center (waste incineration facility) Manager	Tsukuba Clean Center	Semi-structured interview, tour of facilities	Notes, audio recording, photographs
2015-04-22 14:00-15:00	“Grass roots” student environmental organization at Tsukuba University	Tsukuba University	Semi-structured interview, observation of group’s activities	Notes, audio recording, photographs
2015-05-20 10:00-12:00	National Institute for Environmental Studies Director of Material Cycles Center	National Institute for Environmental Studies	Semi-structured interview	Notes, audio recording
2015-06-03 10:00-12:00	Tsukuba Citizens’ Network Office Staff	Tsukuba Citizens’ Network Office	Semi-structured group interview (with two staff members)	Notes, audio recording, photographs
2015-08-21 10:00-14:00	Ibaraki Inc. landfill (privately owned landfill near Shimotsuma City) Landfill employees and Tsukuba Clean Center employees	Ibaraki Inc. landfill	Semi-structured group interview (with one landfill employee and two employees of Tsukuba Clean Center who accompanied me), tour of facilities	Notes, audio recording, photographs

Appendix 2. List of interviews with Tsukuba residents and household observations

Date	Name (pseudonym) of interviewee	Location	Type of fieldwork	Method of data collection
2015-04-30	Inoue Wako	Interviewee's home	Semi-structured interview	Notes, audio recording
2015-06-10	Murata Emiko	Café in shopping center	Semi-structured interview	Notes, audio recording
2015-06-15	Kobayashi Susumu	Interviewee's home	Semi-structured interview	Notes, audio recording
2015-07-15	Okamoto Naomi	Local café	Semi-structured interview	Notes, audio recording
2015-07-17	Ishii Rie and Morita Yumi	Local café	Semi-structured group interview (2 interviewees)	Notes, audio recording
2015-07-22	Takeuchi Megumi	Local café	Semi-structured interview	Notes, audio recording
2016-02-02	Murata Emiko	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-02-10	Okamoto Naomi	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-02-15	Seki Daisuke	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-03-01	Kuroda Shota and Kuroda Mai	Interviewee's home	Semi-structured interview (2 interviewees), observation	Notes, audio recording, photographs
2016-03-04	Shōno Takako	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-03-07	Nakano Shunsuke	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-03-10	Arakawa Miki and Arakawa Manabu	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-03-10	Miura Tomomi	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs
2016-04-12	Sugita Hiroko	Interviewee's home	Semi-structured interview, observation	Notes, audio recording, photographs

Appendix 3. Interview guide used for institutional interviewees

The example provided here is the explanation sheet for an interview with a researcher at the National Institute of Advanced Industrial Science and Technology

産業技術総合研究所(AIST)の訪問

2015年3月26日

訪問者：ライデン大学博士課程 レベッカ・トンプキンス

目的

現在、私の研究は日本の廃棄物、リサイクルを対象としており、行政、市民団体、企業などにおける廃棄物処理・管理の役割を明らかにし、その組織の関係や社会的な意味を分析することを目的としています。全国の制度の一つの例として、つくば市の廃棄物制度についての調査を行なっています。つくば市における日常のごみ処理の実態をより実践的に把握するためには、人々の日常的な体験をよく知ることが重要であると考えております。今回のヒアリングでは、つくばにある研究機構（事業系廃棄物排出者）として、AISTの廃棄物に関する取組みについて詳しくお聞かせ願いたいです。

質問事項

1. 廃棄物の実態

- 廃棄物の内容（危険物が入っているかどうかなど）
- 排出量
- 研究所内のごみ設備（ごみ箱など）
- 分別のルール
- 研究所内の廃棄物担当者の役割

2. 他団体のやりとり

- 収集・運搬・リサイクル企業との契約
- 廃棄物に関する市役所とのやりとり

Appendix 4. Interview guide used for household interviews

つくば市廃棄物・リサイクルに関する研究 市民インタビュー調査

訪問者：ライデン大学博士課程 レベッカ・トンプキンス

調査概要と目的

現在、私の研究は日本の廃棄物、リサイクルを対象としており、行政、市民団体、企業などにおける廃棄物処理・管理の役割を明らかにし、その組織の関係や社会的な意味を分析することを目的としています。全国の制度の一つの例として、つくば市の廃棄物制度についての調査を行なっています。つくば市における日常のごみ処理の実態をより実践的に把握するためには、人々の日常的な体験をよく知ることが重要であると考えております。

このインタビューでは、つくば市のごみについてのご意見やお考え、実際のご経験などについて詳しくお聞かせ願いたいです。

ご質問やご意見、不明点などがありましたら、レベッカ・トンプキンスまでご連絡をお願いします（下記参照）。

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質問事項

- 普段のごみの内容
- 種類別ごみの扱い方
- 分別のやり方（つくば市の特徴など）
- ごみの設備（ゴミ箱など）
- ごみだしのやり方
- (自治会のメンバーのみ)当番の活動
- ごみに関する情報の元（ごみカレンダーなど）
- 家庭系ごみに関する経験・意見・お話

Appendix 5: List of fieldwork interactions related to NPO Tsukuba Creative Recycle

Date and time	Fieldwork type	Location	Method of data collection
2015-03-25 12:45-17:00	Observation of shop followed by separate interview with Mrs. Shōno	NPO Tsukuba Creative Recycle (Chūō Park), local family restaurant	Notes, audio recording, photographs
2015-04-01 13:30-15:30	Observation of shop, interspersed with questions to Mrs. Shōno and Mrs. Ohashi	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording
2015-04-12 13:30-15:30	Observation of shop, interspersed with questions to Mrs. Shōno	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording
2015-04-29 13:30-15:30	Observation of shop, interspersed with questions to Mrs. Shōno and Mrs. Suzuki	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording
2015-12-30 15:00-16:00	Meeting with Mrs. Shōno to discuss future observations of Creative Recycle	Local café	Notes
2016-01-12 13:00-15:00	Observation of shop, interspersed with questions to Mrs. Shōno and Mrs. Miyamoto	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, photographs
2016-01-29 15:00-16:00	Meeting with Mrs. Shōno to discuss schedule of observations of Creative Recycle and possible participation as a volunteer in Tsukuba Recycle Market	Local café	Notes
2016-02-05 13:00-15:30	Observation of shop, concurrent interview with Mrs. Kaneda	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording
2016-02-06 14:30-15:30	Conversation about the history of Creative Recycle with Mrs. Kawaguchi, Mrs. Shōno, and Mrs. Miyamoto	NPO Tsukuba Creative Recycle (Chūō Park)	Notes
2016-02-16 13:00-15:30	Observation of shop, concurrent interview with Mrs. Miyamoto	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording
2016-02-17 13:00-15:30	Observation of shop, concurrent interview with Mrs. Ohashi	NPO Tsukuba Creative Recycle (Chūō Park)	Notes, audio recording

Samenvatting

“The Waste of Society as Seen through Women’s Eyes:”
Waste, Gender, and National Belonging in Japan

(“De verspilling van de samenleving gezien door de ogen van vrouwen:”
Afval, gender en de nationale samenhang in Japan)

Dit proefschrift gebruikt ‘afval’, en gerelateerde concepten zoals sanitaire voorzieningen, hygiëne en recycling, als een lens om de inlijving van vrouwen in de natiestaat (*josei no kokuminka*) in het moderne Japan (van 1868 tot nu) door te bestuderen. De term *josei no kokuminka* verwijst naar het proces dat van vrouwen *kokumin* (burgers of *national subjects*) maakt, en kan afwisselend vertaald worden als ‘de inlijving van vrouwen in de natiestaat’, ‘de nationalisering van vrouwen’, of ‘de omvorming van vrouwen in *national subjects*’. Tijdens de door de staat geleide ‘modernisering’ in de Meiji-periode (1868–1912) kwam een nieuwe ideologie op met betrekking tot de huiselijke sfeer (*the home*, Jp. *katei*), die vrouwen in het midden van het gezinsleven plaatste, als huisvrouwen die hun echtgenoten ondersteunden en hun kinderen grootbrachten. Deze ‘feminisering en privatisering van de huiselijke sfeer’ sloot huishoudelijke activiteiten, en de vrouwen die ze uitvoerden, uit van de publieke sfeer, hoewel het nationale vertoog wel hoog op gaf van het huis als een besloten en intieme ruimte. De verbinding tussen vrouwen en de staat, die eerder alleen via hun echtgenoten en kinderen werd gelegd, kreeg na de Eerste Wereldoorlog, toen de staat het belang begon te beseffen van het gezin voor het implementeren van nationale beleidsmaatregelen, vorm als een directe relatie. Het creëren van een directe relatie tussen vrouwen en de staat via de huishoudelijke taken van de vrouw betekende het begin van de inlijving van vrouwen in de natiestaat.

Het snijvlak van afval en afvalbeheer vormt een ideaal vertrekpunt om de relatie tussen vrouwen en de natiestaat te onderzoeken. Dit snijvlak verbindt het huis (waar gemeentelijk afval wordt gegenereerd en waar vrouwen via sociaal-geconstrueerde gendernormen en -idealen, zoals die van de

‘goede echtgenote, verstandige moeder’ [*ryōsai kenbo*], worden gesitueerd) met de staat (vanwege de wettelijke verantwoordelijkheid die de staat sinds het eind van de negentiende eeuw draagt voor het gemeentelijk afvalbeheer). De Dirt Removal Act (Vuilverwijderingswet) van 1900 legde de verantwoordelijkheid voor afvalbeheer bij lokale overheden. De herziening van de wet in 1932, na jaren van technologische vooruitgang in afvalbeheertechnieken, vereiste dat gemeentelijk afval waar mogelijk vernietigd moest worden door middel van verbranding. Het grote belang dat in het afvalbeheersysteem aan verbranding werd gehecht (meer dan bij andere methoden, zoals het storten van afval) betekende dat een grondiger scheiding van afval in materiaal dat wel en dat niet kon worden verbrand, noodzakelijk was. De Japanse staat legde een groot deel van de verantwoordelijkheid voor deze afvalscheiding bij de burgers, die afval dienden te scheiden vóór het werd ingezameld. Omdat dit een huishoudelijke taak was, waren het in het algemeen de vrouwen die het afval scheidden. Door de interacties van vrouwen met afval te onderzoeken – hetzij thuis, hetzij via hun deelname aan afvalcampagnes of lokale beleidsmaatregelen ten aanzien van afvalbeheer – krijgen we een genuanceerder beeld van de processen die de relatie van vrouwen met de Japanse staat hebben vormgegeven.

Het inleidende hoofdstuk bevat achtergrondinformatie over genderrollen en het familiesysteem in het moderne Japan; theorieën die betrekking hebben op de inlijving van vrouwen in de natiestaat en seksegerelateerd burgerschap; theorieën met betrekking tot afval; en relevante informatie uit de geschiedenis van afvalbeheer in het moderne Japan.

Het tweede hoofdstuk richt zich op de ‘afvalcampagne’ (*gomi undō*) die de Tokyo Women’s League to Purify City Politics (Tokyo Vrouwenbond voor het Zuiveren van Stedelijke Politiek; hierna ‘de Bond’) in 1933 initieerde in Tokyo. De Bond was een activistische vrouwengroep waarvan de kernleden leiders waren van de ontluikende vrouwenkiesrechtbeweging in Japan. De campagne was opgezet om het afvalprobleem van de stad aan te pakken: nieuwgebouwde afvalverbrandingsinstallaties in het Fukagawagebied in het zuidelijk deel van Tokyo-Centrum genereerden enorme, schadelijke rookwolken, die volgens experts veroorzaakt werden door de verbranding van buitensporige hoeveelheden afval en het hoge watergehalte van dat afval. De Bond omarmde het probleem: ze organiseerde een lezingenreeks over

de correcte manier om huishoudelijk afval te scheiden en te behandelen; distribueerde duizenden folders; assisteerde bij de door de stad uitgeschreven wedstrijd om een ‘schoonmaakslogan’ te verzinnen; en produceerde zelfs een film over het afvalprobleem in opdracht van de stedelijke autoriteiten. Op basis van archiefbronnen analyseert dit hoofdstuk de interacties tussen de activistische vrouwengroep en de stedelijke autoriteiten en andere actoren die betrokken waren bij de afvalbeweging in Tokyo in de jaren dertig van de vorige eeuw. Het hoofdstuk richt zich op de manieren waarop de Bond het gemeentelijke afvalprobleem gebruikte om een sociale beweging op te zetten. Dit was een bewuste, politieke strategie, waarbij vertogen over vrouwen werden ingezet en getransformeerd om zo het doel van de Bond – het verbeteren van de positie van vrouwen in het openbare leven – te promoten. Voor de stad droeg samenwerking met de vrouwengroep via de afvalbeweging bij aan het oplossen van het onderliggende probleem. Niet alleen werd op deze manier het bewustzijn van de burgers met betrekking tot (en, hopelijk, de daadwerkelijke praktijk van) het correct scheiden van afval vergroot, ook werd de publieke aandacht zo afgeleid van de verantwoordelijkheid die de stad droeg voor het aanhoudende rookprobleem in Fukagawa. Deze *case study* benadrukt de talloze manieren waarop ‘afval’ kan worden ingezet als politiek en discursief instrument, alsook de actieve rol van de vrouwengroep bij het tot stand brengen van een coöperatieve relatie met de stedelijke autoriteiten teneinde zo hun politieke doeleinden te bevorderen.

Het derde hoofdstuk laat zien wat afvalvermindering- en afvalinzamelingscampagnes in oorlogstijd ons leren over de constructie van gender- en familie-ideologieën in tijden van oorlog.

Tijdens de Asia–Pacific War werden vrouwen in het algemeen aangemoedigd door officiële campagnes en propaganda van de Japanse regering om deel te nemen aan de oorlogsinspanning op een wijze die in overeenstemming was met hun ‘traditionele’ rol binnen het familiesysteem. Na een landelijk afvalinzamelingscampagne in juli 1938, bijvoorbeeld, citeerde een artikel in de *Asahi Shinbun* (met de ondertitel ‘De doeltreffendheid van mannen buiten, vrouwen binnen’) een ambtenaar van de Tokyo City General Mobilization Department (Algemene Mobilisatieafdeling van Tokyo-Stad), die benadrukte hoe belangrijk het was dat ‘elk individu op de juiste post dient’.

Niet alle activiteiten ter ondersteuning van de oorlogsinspanning werden echter door de staat geïnitieerd; vrouwengroepen organiseerden hun eigen afvalpreventiecampagnes, waarvan sommige niet voldeden aan de traditionele genderrollen. Tijdens het ‘Vind Afval in de Straten’ evenement in 1938 – een evenement dat een week duurde en georganiseerd werd door de Japan Federation of Women’s Organizations (Japanse Federatie van Vrouwenorganisaties) om bij te dragen aan de economische mobilisatiecampagne van de regering voor het thuisfront – trokken honderden vrouwen door de straten van Tokyo, waarbij zij al het afval dat zij waarnamen noteerden. In tegenstelling tot de landelijke, door de regering georganiseerde en door *Asahi Shinbun* geprezen afvalinzamelingscampagne was de berichtgeving van de krant over het door de vrouwengroepen georganiseerde evenement enigszins neerbuigend. Dit hoofdstuk benadrukt dat mobilisatie in oorlogstijd grotendeels geregisseerd werd door de staat, maar dat in sommige gevallen vrouwen hun eigen, onafhankelijke afvalcampagnes organiseerden.

Het vierde hoofdstuk richt zich op afval, vrouwen, en de staat in Japan in de huidige tijd. ‘Afval’ blijft een kernthema dat vrouwen met de staat verbindt, in de vorm van verplichte gemeentelijke afvalscheidingsverordeningen. Studies hebben aangetoond dat vrouwen het merendeel van de huishoudelijke arbeid die benodigd is voor afvalscheiding verrichten, waarbij moet worden opgemerkt dat de eisen die aan afvalscheiding worden gesteld sinds het eind van de jaren tachtig in complexiteit zijn toegenomen. Lokale overheden, die voor het goed functioneren van het afvalmanagementsysteem afhankelijk zijn van de correcte scheiding van huishoudelijk afval, richten hun voorlichtingscampagnes dan ook specifiek op vrouwen. Vrouwen zijn ook vaak betrokken bij inspanningen van de gemeenschap om de hoeveelheid afval te verminderen en hergebruik en recycling te bevorderen. Vandaag de dag is afvalscheiding zowel een banaal onderdeel van het huishoudelijke takenpakket van de vrouw als een integraal onderdeel van het hedendaagse afvalmanagementsysteem. Dit hoofdstuk is gebaseerd op interviews, observaties en documenten verzameld tijdens veldwerk in Tsukuba, Ibaraki in de periode 2014 tot 2016.

Het vijfde hoofdstuk, dat gebaseerd is op interviews en participerende observatie bij twee recyclinggroeperingen in Tsukuba, Ibaraki in 2015 en 2016, onderzoekt houdingen en gedragingen in relatie tot gender en afval bij recyclingorganisaties die draaien op vrijwilligers uit de gemeenschap. Tsukuba Creative Recycle is een non-profitorganisatie gevestigd in Tsukuba. Haar voornaamste activiteit bestaat uit het runnen van een tweedehands ‘kringloopwinkel’; daarnaast schenkt de organisatie kleding en andere artikelen aan mensen in nood in Japan en overzee. De tweede op vrijwilligers draaiende recyclingorganisatie waarbij ik mee liep, de Tsukuba Recycle Market, is een koop- en verkoophevenement in vlooiemarktstijl dat momenteel vier keer per jaar plaatsvindt in de open lucht in Tsukuba’s Chuo Park. Het doel van het evenement is om afval te verminderen door mensen de kans te geven om ongewenste artikelen te verkopen die anders zouden worden weggegooid. Het merendeel van de vrijwilligers die aan beide groepen bijdragen is vrouw, en de meeste van hen zijn gemotiveerd om deel te nemen om sociale redenen, hoewel voor velen ook het verminderen van afval een onderwerp is dat hen nauw aan het hart gaat. Met deze twee groepen als voorbeeld richt dit hoofdstuk zich op vrijwilligerswerk in de afvalsector als een seksegerelateerde uitdrukking van maatschappelijke betrokkenheid.

Het afsluitende hoofdstuk vat de hoofdpunten van elk hoofdstuk samen en herformuleert de hoofdargumenten van het proefschrift inzake de relatie tussen gender, afval en burgerparticipatie in Japan.

(Translated by Klarijn Anderson-Loven)

Curriculum Vitae

Rebecca Tompkins was born on April 7, 1989 in Nashville, Tennessee, United States of America. She attended Pope John Paul II High School in Hendersonville, Tennessee from 2003-2007. In 2011, she received a bachelor's degree from Trinity College (Hartford, Connecticut, USA) in International Studies and Political Science with a minor in Japanese. Her B.A. thesis was titled "Working for Change: Gender Inequality in the Labor Force in Japan, South Korea, and Taiwan." She received a master's degree in Regional Studies – East Asia from Harvard University Graduate School of Arts and Science (Cambridge, Massachusetts, USA) in 2013 with the master's thesis "Birth Control Policy and the Politics of the Pill in Japan." While earning her master's degree, she studied Japanese intensively at the Inter-University Center for Japanese Language Studies in Yokohama, Japan from 2012-2013, and passed the N1 level of the Japanese Language Proficiency Test in 2013. In 2013, she enrolled as a PhD student at Leiden University, studying waste in Japan as a social and cultural phenomenon as a member of the Garbage Matters Project, supervised by Professor Katarzyna Cwiertka. From 2014-2016, she conducted field research in Japan for her doctoral dissertation with institutional support from the National Institute for Environmental Studies and Kobe University, and financial support from the Japan Foundation. She is currently employed as a lecturer at Senshu University in Kawasaki, Japan.