Give Us Our Blue Skies Back:

Ordinary housewives, citizen science, and mutual aid in Kitakyūshū's 'hidden' anti-pollution movement of the 1950s and 1960s

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Abstract

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The *Give Us Our Blue Skies Back* movement (1950-1969) by Tobata's Collaborative Women's Association was one of the earliest, longest-lived and most comprehensive environmental movements of the 1950s and 1960s, starting at a time when pollution was glorified as a corollary of growth and progress, years before environmental protection and civil rights were discussed in Japanese society.

Due to the economic dependence of many families on income from the city's heavy industries such as the national iron and steel giant, Yahata Steelworks, but also in order not to jeopardise the prosperity of the 'industry castle town' (*kikgyō jōkamachi*), which received major tax revenues from the polluting companies, Tobata's women found themselves in a position where confrontational activism could severely impact the livelihood of the community. Basing their movement on independent scientific investigation, the women were able to reveal a detrimental impact of Tobata's pollution on physical and mental health, as well as on the environment and the whole ecosystem. Despite being ordinary, largely uneducated housewives, Tobata's women contributed to a better scientific understanding of pollution, especially by revealing a significant correlation between Tobata's pollution levels and local death rates from lung and heart diseases already in 1965. Their impressive scientific studies and 'environmental PR' sensitised the local community, industry and government regarding the dangers of pollution by the mid-1960s, and managed to trigger a paradigm change regarding the desirability of soot and smoke.

Despite having remained largely unnoticed by historians and political scientists due to the absence of open conflict, violence and demands for financial compensation amongst the *Give Us Our Blues Skies Back* activists, it is one of the most innovative anti-pollution movements in Japan's high-growth years. Whilst the large majority of contemporary anti-pollution movements were aimed at protecting their members' economic wellbeing, the activism by Tobata's women's associations poses an outstanding example of civil society fighting for social justice, equality, environmental protection, and a just society based on mutual aid.

This thesis investigates concepts of gender, the environment, and progress in the 1950s and 1960s, and highlights the dichotomy of benefitting from Japan's rapid growth in the 1960s whilst suffering from pollution from the very companies on which the activists' household income depended. Combining in-depth archival research with an oral history approach, it examines the 'everydayness' of pollution in Tobata's 1950s and 1960s. It investigates the psychological, physical and social responses to pollution amongst the local population, drawing on a plethora of anecdotes from personal interviews as well as from a vast array of primary sources disclosed in 2014 and 2015.

CHAPTER I: INTRODUCTION

I.I Framework

> *Having prospered hand in hand with smoke, having developed hand in hand with smoke, Kitakyūshū City is wrapped in soot, smoke and gas; families' health is threatened, and we citizens [shimin] have been greatly harmed. It is definitely not possible to accept this as matter of fact in an industrial city.*[1]
>
> Opening scene of the *Give Us Our Blue Skies Back* (1965) documentary
> Kitakyūshū City Tobata Ward Collaborative Women's Association

The *Give Us Our Blue Skies Back* documentary on Kitakyūshū's pollution aired in 1965 on the national NHK television channel, despite being the product of amateur local housewives, poses one of the strongest and most direct declarations that accepting, or even glorifying, pollution as a sign of progress is no longer justifiable. 'The ideology that our wellbeing depends on smoke is out-dated', argued the women's associations of Tobata City (now: Tobata Ward, Kitakyūshū City), which had been fighting pollution since 1950.[2] Despite the state's narrative, as expressed in the Yoshida Doctrine and Prime Minister Ikeda' 'Income-Doubling Plan', that Japan's industrialisation constituted a national priority, [3] for which, inexplicitly, 'land and ocean viability had to be sacrificed in the interests of national and community prosperity',[4] around 6,500[5] often

[1] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii* [Give us our blue skies back] (Kitakyūshū, 1965), 8 millimetre documentary, 29 min.
[2] Ibid.
[3] Expressed in the Yoshida Doctrine as well as in Prime Minister Ikedas's 'Income-Doubling Plan'. Japan's first Prime Minister Shigeru Yoshida expressed a strong need to allocate all available resources for Japan's economic recovery. A similar emphasis on the economy can also be found in Prime Minister Hayato Ikeda's 'Income-Doubling Plan', which was introduced with the aim to increase Japan's GNP by 100 percent between 1960 and 1970. As the publication by the Institute of Fiscal and Monetary Policy of the Japanese Ministry of Finance points out, the 'Income-Doubling Plan's' 'primary aim was to continue and quantitatively expand "massive growth"', 'placing the highest priority by far on "massive growth"'.
Ministry of Finance (Office of Historical Studies, Institute of Fiscal and Monetary Policy) (ed.), *Fiscal and monetary policies of Japan in reconstruction and high-growth*, *1945 to 1971*, https://www.mof.go.jp/english/pri/publication/policy 1945-1971/Full edition1945-1971.pdf, p. 166f.
[4] Y. Hoshino (1992). 'Japan's Post-Second World War environmental problems', in J. Ui (ed.) *Industrial pollution in Japan* (Tokyo, 1992), p. 74.
This is also revealed in the 'harmony clause' of Japan's Basic Law for Environmental Pollution Control from 1967, which inexplicitly requests the submission of personal desires and the endurance (*gaman*) of the negative side effects of development. Its proposition that the 'preservation of the living environment shall be carried out in harmony with the healthy development of the economy' is a clear sign that the Ministry of International Trade and Industry (MITI), and thus the Japanese government, valued economic growth more than environmental protection. Considering that this harmony clause limited the liability of polluting industries, the government inexplicitly asked the Japanese people to bear personal desires such as for fresh air in order not to jeopardise economic development. M. Schreurs, *Environmental politics in Japan, Germany, and the United States* (Cambridge, 2004), p. 43.
[5] The number 6,500 refers to the members of the thirteen women's associations of Tobata, which united as 'Kitakyūshū

barely educated housewives in Japan's periphery voiced strong opposition. As members of Tobata's women's associations, they formed a dedicated anti-pollution committee task force in 1965, which studied the adverse effects of pollution on a micro and macro level, conducted scientific experiments to generate new understanding of smoke's severe impact on human health, nature and the social fabric, and disseminated the newly acquired knowledge amongst the local population.[6] Petitioning the local government with their findings, and starting a PR campaign to 'Regain Blue Skies' (*aozora ga hoshii*)[7] that gathered state-wide attention since 1963, after considerable supportive media reception.[8] Kitakyūshū's housewives overcame their social disadvantage as undereducated,[9] underemployed women removed from Tōkyō, the epicentre of politics, by 1,000 kilometres. What appeared to be a 'mission impossible', as the housewives' protest was directed against the central government, the ideology of the nation state, and one of Japan's most influential companies, Yahata Steelworks,[10] in fact became one of Japan's most successful environmental movements during Japan's era of high pollution.

City Tobata Ward Collaborative Women's Association' (*Kitakyūshūshi Tobataku kyōgikai fujinkai*) and, between 1965 and 1969, conducted large-scale research on pollution as *Give Us Our Blue Skies Back* movement. Whilst not all members were involved at the same degree, most of the 6,500 members contributed to the movement's success.

[6] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II* [Give us our blue skies back II] (Kitakyūshū, 1966); Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūnen no ayumi: kessei nijū shūnen no kinen* [History of 20 Years: in Memory of the 20th anniversary of the establishment] (Kitakyūshū, 1970); S. Kanzaki, *'Kitakyūshū kōgai kokufuku no rekishi wo ugokashita Tobata fujinkai no katsudō* [The activism by Tobata women's association that stirred Kitakyūshū's history of pollution control], *Ajia Josei Kenkyū* [Research on Asian Women],25:3 (2016), pp. 73-91.

[7] Whilst in the beginning, Tobata's women referred to their civil activism as 'anti-pollution movement/activism' [*kōgai tsuihou undo*, or *baien tsuihou undo*, which translates to public nuisance/soot and smoke eviction movement) or even as 'pollution study' [*kōgai gakushū*], at least by 1964/1965, it was widely know as '*aozora ga hoshii'* movement. According to Eidai Hayashi, who was in charge of Tobata's social education (women and youth) from 1963, someone had written *aozora ga hoshii* (we want blue skies) on a poster prepared for display at the New Life Exhibition in 1964. Noticing that this catchphrase would be a nice slogan, the movement's name changed from *kōgai tsuihō undō* to *aozora ga hoshii* movement. Whilst *aozora ga hoshii* literally translates to 'we want blue skies', it is predominantly referred to as *Give Us Our Blue Skies Back* movement in English literature, such as in the book on environmental policies published by Kitakyūshū city in 1998, or in the pamphlet the Kitakyūshū Forum on Asian Women (KFAW) produced in 1995. For this reason, this thesis refers to the women's activism as '*Give Us Our Blue Skies Back'* movement rather than as '*We Want Blue Skies'* movement.
Kitakyūshū City, Kitakyūshūshi no kōgai taisakushi: bunsekihen [History of pollution countermeasures: analytics edition] (Kitakyūshū, 1998); Kitakyūshū Forum on Asian Women, *Women and the environment: environmental history of Kitakyūshū and anti-pollution movement promoted by women* (Kitakyūshū, 1995).

[8] Whilst the Tobata Ward Collaborative Women's Association only started to focus on pollution-related issues in 1963, the local women's association of Sanroku had started their anti-pollution movement in 1960, making 'pollution' their yearly study topic in 1963. Predominantly due to the display of their study results at the New Life Exhibition in Tobata's civic hall in October 1963, the media had reported on the women's activism at least from 1963, and not only from 1965.

[9] Whilst the women did not try to attract attention, and pity, by 'selling' themselves as incapable housewives, they point out the difficulties and struggle they had to face in their studies, revealing that calculation of square roots and equations, amongst other mathematical problems, posed a great challenge to the housewives.
Chiyoko Imamura, 'Aozora ga hoshii: Kitakyūshū no kōgai hantai undō' [Give us our blue skies back: Kitakyūshū's anti-pollution movement], *Jurist*, 458 (1970), pp. 130-134.

[10] *Yahataseitetsujo*. The name of the company changed from the original 'government-owned Yahata Iron and Steel Works', over 'Yahata Iron and Steel Works' in the early postwar years, to 'New Japan Steel Corporation' in 1970, before eventually becoming 'Nippon Steel and Sumitomo Metal' after the most recent merger in 2012. For reasons of simplicity, the company will be referred to as Yahata Steelworks, or just Steelworks.

Whilst the 1950s and 1960s were dominated by the Japanese state's efforts to regain a place in the global economy, with seemingly the whole nation, including their own husbands and sons, geared towards industrialisation, Tobata's female civil movement initiated an ideological change regarding the dominant concepts of modernity, as well as the desirability of industrial progress. Their main target was no less than Japan's biggest company (since 1959), which in 1971 became the world's single largest steel mill. With annual sales of USD 340 million already in 1959, and boasting average growth rates of twenty-five percept per annum during the 1960s, it was also one of Japan's most successful and prosperous companies in the 1960s. Dominating the Japanese crude steel market with a market share of 25-30 percent in the 1960s,[11] it greatly supported Japan's economic revival and Ikeda's 'Income-Doubling Plan' by supplying crude steel for construction and shipbuilding. Its rising steel production was moreover the motor behind Japan's rising motorisation, which brought steep improvements in the quality of life for most Japanese people.[12] The massive size and national importance of Yahata Steelworks highlight not only the explosive force, but also the extraordinary nature of the women's movement.

The women's success, measured also by the fact that the executive branch of the Yahata Steelworks invited some of the women's associations representatives to discuss pollution-abatement in 1968, and in 1971, brought all other major local companies to jointly sign a public memorandum to reduce emissions,[13] is even more impressive considering the Steelwork's massive scale and power, and the women's seeming lack of political experience. Without prior involvement in social movements, lacking scientific education, and access to political circles and established networks, several thousand women in Tobata overcame the barriers their social status as ordinary housewives entailed, and became public figures advocating environmental protection. Although several hundred female activists (the members of two entire women's associations) lived in various polluting company dormitories, the uncompromising women did not succumb to the pressure from their husbands, the management of local industries, and politicians, who wanted an end to their anti-pollution campaign after the women received some concessions from the city government and industry in the early 1950s and early 1960s.[14] On the contrary, determined not to

[11] Another 20 percent of crude steel was produced by Fuji Steel, another main 'descendant' of the pre-war Yahata Iron and Steel Company, when the old *zaibatsu* (industrial conglomerate) was split in four during the US occupation.
[12] A. Suzuki, 'The death of unions' associational life? Political and cultural suspects of enterprise unions', in F.J. Schwartz and S.J. Pharr, *The state of civil society in Japan* (Cambridge, 2003), pp. 195-213; Encyclopedia.com (ed.), 'Nippon Steel Corporation', accessed 7 February 2017 at http://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/businesses-and-occupations/nippon-steel-corp
[13] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen* [History of pollution countermeasures: analytics edition] (Kitakyūshū, 1998).
[14] E. Hayashi, *Yahata no kōgai* (Tokyo, 1971).

accept the state's careless, or even negligent, dealings with humans, animals and broadly the environment, Tobata's women approached no less an institution than the state's biggest and most influential media house, the nationally-owned NHK television and radio group, asking the TV channel to air their independently produced documentary *Give Us Our Blue Skies Back* (1965). Over 29 minutes, the women's cinematographic debut revealed not only the unbearable levels of pollution from which Kitakyūshū's citizens were suffering in order for the state and industry to prosper, but also introduced the women's research, which highlighted a statistically significant correlation between atmospheric pollution levels and the occurrence of severe oto-rhino-laryngological diseases such as asthma.[15]

Whilst local housewives in Japan's periphery had few other skills and qualifications than being wives and mothers, Tobata's women conducted scientific studies on Kitakyūshū's pollution in the 1960s, thereby contributing to a better understanding of the medical dangers of pollution amongst the general population.[16] The key to their unlikely, unexpected success was that Tobata's women approached pollution as an everyday phenomenon, rather than as chemical reactions that had to be researched in established laboratories and then solved politically by the central government. For Tobata's women, pollution was not a chemical structure consisting of molecules of whose names they had never heard. Rather, it was the soot in the air that smeared their children's faces black when playing outside, and that covered their tatami mats in a dark carpet of ash. Pollution was smoke that rendered the skies dirty and depressing, as well as sulphur oxides, which irritated people's eyes and which made trees and plants wither. Matching this 'everyday appearance' of pollution's adverse effects, Tobata's women searched for ideas on how to understand and solve pollution by examining their everyday life: measuring soot levels in empty milk cartons and candy boxes from their kitchen, which the women had deposited on the roofs of four apartment complexes located at different distances to the major industrial production sites, the women could quantify exhausts in different locations.[17] Similarly, hanging out starched and unstarched cloth, their husbands' old white shirts, as well as fabric samples from old futons in the same four locations allowed the women to measure the degree of stains caused by sulphurous

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[15] Other diseases include infects of the ear, nose, and throat, runny noses, sore eyes, respiratory ailments, and severe coughing. The medical symptoms from pollution are vividly described in the *Give Us Our Blue Skies Back* research report I and II, especially in the part where the local population describes their physical suffering.
Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii II*; Id., *Aozora ga hoshii I* [Give us our blue skies back I] (Kitakyūshū, 1965).

[16] By showing a clear correlation between sick leaves at the local elementary schools and sulfurous gas levels in their *Give Us Our Blue Skies Back* research report I, Tobata's women sensitised the population regarding the high probability that Tobata's industrial pollution had negative health impacts.
Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii I*.

[17] Kanzaki, *'Kitakyūshū kōgai kokufuku no rekishi wo ugokashita Tobata fujinkai no katsudō.*

gases, soot and smoke after one, two and three months.[18] Whilst such methods were simple, they were effective means to provide evidence of pollution's adverse effects. This basic research from 1950 established a correlation between pollution levels and the distance from Tobata's industrial area, where companies such as the Nakabaru Electric Power Station and Yahata Steelworks' Tobata plant were located, which later helped the women to develop a causal relationship between industrial production output and the high occurrence of asthma in the neighbouring Sanroku ward.[19]

Fig. 1: Child covered in soot. Both the skin and clothes of children playing outside in the Sanroku and Nakabaru wards of Tobata tended to be covered in soot.

Pollution was a ubiquitous phenomenon across the Japanese archipelago between the early 1950s and the 1970s, with several million city dwellers suffering from the side effects of airborne particles and gases, as well as from smog, which 'had become a major problem in most Japanese cities by the early 1960s'.[20] However, despite receiving dubious fame as 'most polluted country in the world' or 'Pollution Kingdom' *(kōgai ōkoku)* by the mid-1960s,[21] Japanese grassroots environmental activism was sparse. Similarly, the dominant discourse on pollution remained predominantly uncritical of soot and smoke's repercussions until the late 1960s or even early 1970s.[22] In 1958, director Keisuke Kinoshita's immense romanticisation and glorification of

[18] Imamura, 'Aozora ga hoshii'; E. Hayashi, *Kore ga kōgai da: kodomo ni nokosu isan wa nanika. Hayashi Eidai shashinshū* [This is pollution. What heritage are we leaving our children? Collection of photographs by Eidai Hayashi] (Kitakyūshū, 1968).
[19] Kanzaki, *'Kitakyūshū kōgai kokufuku no rekishi wo ugokashita Tobata fujinkai no katsudō,*; Tobata Ward Women's Association, *Aozora ga hoshii III.*
[20] P. Duus, 'Shōwa era Japan and beyond: from Imperial Japan to Japan Inc.', in V. Bestor, T.W. Bestor and A. Yamagata, *Routledge handbook of Japanese culture and society* (Abingdon & New York, 2011), pp. 13-28.
[21] Broadbent, *Environmental Politics in Japan: networks of power and protest* (Cambridge, 1998), p. 85.
[22] Y. Hoshino, 'Japan's post Second World War environmental problems'; J. Broadbent, *Environmental Politics in Japan.*
For opinion polls, see: Institute of Statistical Mathematics, 'Nihonjin no kokuminsei chōsa' [Study of the Japanese

mass industrial production in general, and the Yahata Steelworks in particular, in his cinematographic work *Rainbow of this Sky* [Kono Ten no Niji],[23] received accolades, and for another fifteen years, the majority of Kitakyūshū's citizens regarded the 'seven-coloured' rainbow sky as 'proof of prosperity' ('*nanairo no kemuri wa hanei no akashi',* according to a local saying).[24] Similarly, on a political level, major attempts by the Japanese government to clean up the country only began in the 1970s, after the 'Pollution Diet' passed thirteen stringent environmental laws in December 1970, highlighting the widespread acceptance of industrial pollution in the 1950s and 1960s.[25]

Despite this general discourse on smoke as a symbol of growth and prosperity, in a climate of general disinterest in pollution prevention and abatement, Tobata's women raised their voice against pollution between 1950 and 1969. Assessing the female activists' motivation and their strategies, this dissertation reveals why, and how, powerless housewives developed into some of Japan's most persistent, and sophisticated anti-pollution activists, and what the key to the women's unlikely success was. More broadly, it delineates changes in Japanese citizens' perception of progress, industrial pollution and human rights in the 1950s and 1960s, which strengthened the women's activism. In other words, with the example of Tobata, this dissertation depicts how communities, geographically and socially distant from the ruling elites and corporate leaders, coped with the adverse impacts of pollution, and how grassroots movements developed in an effort to protect mankind and the environment.

It goes without saying that the extraordinarily high degree of pollution and its repercussions on society were a precondition for the activism amongst Tobata's women's associations, and provides some explanatory power as to why their movement, which started in 1950 with Tobata's Nakabaru Women's Association, preceded that of other communities. Without pollution, anti-pollution movements had no reason to exist, which rendered Kitakyūshū, where average dust-fall surpassed eighty tons per square metre every month through most of the 1960s (with an even more astonishing up to 108 t/km^2/month in the Shiroyama ward of Yahata/Kitakyūshū), a fertile ground for anti-pollution movements. With average soot levels in Tobata and Yahata surpassing the corresponding values in numerous other national and international industrial centres in the 1960s, Kitakyūshū was Japan's prime example of a polluted city, and its citizens suffered from soot, smoke, sulphur oxides, nitrogen oxides, noise pollution,

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national character], The first, second, third and forth nation-wide study *1953, 1958, 1963, 1968*, accessed 4 March 2016 at http://www.ism.ac.jp/~taka/kokuminsei/table/index.htm.

[23] Keisuke Kinoshita, *Rainbow of this Sky* [*Kono Ten no Niji*], 1958. Shochiku film, 106 minutes.

[24] Yahata Higashi Ward, *Nijiiro hakkei: tokushū tetsuto yahata tanjō* [Eight picturesque sights of the seven-coloured rainbow: birth of the 'iron city' Yahata'] (Kitakyūshū, 2015).

[25] Schreurs, *Environmental politics.*

bad odours, water pollution and vibration pollution, amongst others.[26] During the whole 1960s, the Shiroyama ward in Yahata was not only Japan's, but most likely the world's, most polluted, and Kitakyūshū soon reached dubious 'fame' as a 'pollution department store' (*kōgai no depaato*), a humorous aside by locals, casting light on the vast 'availability' of all diverse flavours of pollution.[27] Kitakyūshū's pollution was not limited to black skies: by the late 1960s, not even *e.coli* bacteria could survive in the toxic aquatic environment of Dōkai Bay, which had become the dumping ground for the wastewater of most of the city's ninety-two major industries (climaxing at four million cubic meters each day in 1969).[28] With an unmatched level of cadmium, arsenic and cyanogen, and a chemical oxygen demand (COD) of over 74 mg/l, seven times higher than in Ōsaka or Nagoya and other industrial centres, the bay once called a 'treasure house of fish' soon became dubbed the 'Sea of Death' (*shi no kai*), without any life forms.[29] The water had such a dark brown shade that locals joked 'if you want to drink coffee, go to Dōkai Bay'.[30]

Whilst the intensity of pollution is often regarded as trigger and major indicator for the existence of protest movements, it falls short in sufficiently explaining the reasons for the emergence of a large-scale anti-pollution movement in Tobata, but not in neighbouring Yahata or in other major production centres like Tōkyō, Kawasaki, Nagoya, Ōsaka and Kōbe, which all experienced high levels of pollution.[31] In other words, although pollution levels and their widespread repercussions for large parts of the local population were an obvious precondition for the emergence of a revolt against industrial production in Tobata, they only have barely explain this. More important than the actual degree of pollution for the rise of protests are the *perception* and *framing* of pollution. For movements to emerge, industrial exhaust gases and airborne particles, amongst others, must be framed as a problem, and addressed as such. Unlike in many other Japanese cities, where soot and smoke had a positive connotation as a marker of progress and harbinger of prosperity, women in Tobata were amongst the first in Japan to notice that exhausts from industrial production greatly impacted physical and mental health, making them forerunners in arguing that Japan's post-war reindustrialisation had substantial repercussions on

[26] Yokohama City Bureau of Hygiene, *Yokohama ni okeru kōgai no jittai to yosoku: kōgai shiryō no. 1* [Current state and prediction of Yokohama's Pollution: Pollution Materials No. 1] (Yokohama, 1964).
[27] Kitakyūshū City, *Sangyō no ryōkō to kōgai no hassei* [The rise of industry and the start of pollution], accessed 3 July 2016 at http://www.city.Kitakyūshū.lg.jp/kankyō/file_0268.html.
[28] OECD, *Green growth in Kitakyūshū, Japan*: *OECD green growth studie*s (Paris, 2013); Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*.
[29] Kitakyūshū City, Kitakyūshūshi kankyō shisaku handobukku II – dōkaiwan fukkatsu: shi no kai kara no saisei [Environmental policy handbook 2 – revival of Dōkai Bay: regeneration from the 'sea of death'], accessed 3 July 2016 at http://enviroscope.iges.or.jp/contents/76/jap/story/storyi2.htm.
[30] Unpublished and un-catalogued archival materials based on interviews, Environment Museum Kitakyūshū.
[31] There are no well-known examples of anti-pollution protest in the cities mentioned above. However, it is likely that 'hidden' anti-pollution movements also occurred in the 1950s and 1960s, which yet have to be discovered.

the population. Instead of romanticising and glorifying pollution, and not giving in to the narrative of pollution as a necessary precondition for economic growth and for a better life, Tobata's women pointed out the true cost of post-war growth, and framed pollution as burden and danger.[32]

To a large extent, the early negative framing of pollution stems from the fact that pollution and its side effects had been noticeable in Kitakyūshū at least from the late 1940s, and that housewives were the social group most severely exposed to and impacted by it.[33] Physically and mentally drained from their increasing workload in the household due to rising pollution, worried about their family's health and financial situation, and disappointed that the end of the Second World War did not translate into a more equal society, but that instead some social groups had to bear the negative side effects of pollution whilst others reaped the benefits of industrial production, Tobata's women were amongst the first to notice the dangers of pollution.[34] Not willing to sacrifice their families' health after many women had lost a family member's life during the war, Tobata's women started to frame industrial production as a problem for society rather than a sign of progress and development, considerably earlier than the majority of other anti-pollution grassroots movements. In other words, due to their exposure to pollution in their daily life, Tobata's women were not only amongst the first to notice pollution, but also to see its severe repercussions on their family's mental and physical health as well as on nature, for which they started framing pollution as a social problem as early as 1950.

Although the anti-pollution activism initiated by the local women's association of Tobata's Nakabaru ward was amongst the first post-war movements to protest against industrial pollution, it would be wrong to claim that it was the only one. Whilst not widely known, Nobuko Iijima revealed the existence of several dozen that were, in a wider sense, concerned with pollution movements between 1945 and 1960.[35] However, what sets Nakabaru's women apart from other movements, which began to exist in small numbers since the late 1940s, is their focus on pollution's repercussions on society and the environment. Whilst the largest majority of movements Nobuko Iijima (1979) lists in her compilation *Pollution Japan* for the 1950s were executed by smaller labour unions or interest groups, with similar professional backgrounds, such as fishermen and farmers, who largely protested to protect their income, the women's movement

[32] This is most impressively highlighted in the women's *Give Us Our Blue Skies Back* research reports I, II, and III. Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii I* [Give us our blue skies back I] (Kitakyūshū, 1965); Id., *Aozora ga hoshii II;* Id., *Aozora ga hoshii III.*
[33] Kanzaki, *'Kitakyūshū kōgai kokufuku no rekishi wo ugokashita Tobata fujinkai no katsudō.*
[34] Interview with Misako Katō, 17 April 2012.
[35] N. Iijima, *Pollution Japan: historical chronology* (Tōkyō, 1979).

in Tobata was one of the few grassroots movements with a largely altruistic motivation.[36] The unique character of the women's movement is expressed by the fact that their members did not try to protect their own interests and to achieve benefits limited to only a small group of people, but that they hoped to improve the situation of their whole city. In other words, whilst for example the members of the Urayasu Fishing Cooperative Association that protested against industrial effluents released into Tōkyō Bay by Honshū Paper Mill's Edogawa Factory in 1958 predominantly did so for economic reasons, to protect their fish catch and thus their own livelihood, Tobata's housewives acted to protect their community and to create a more equal society through mutual aid.[37] Arguing that because 'industrial development had received priority over everything' (*subeteni yūsen sareta sangyō no hatten*),[38] air pollution has become a 'social ill' (*shakaiaku*) that is 'destroying [citizens'] life and health' (*seimei to kenkō wo mushibamu).*[39] This makes them one of the only true grassroots movements emerging in the 1950s whose activism was not fuelled or managed by organised labour or political parties, but a movement initiated from within the civil society, based on the women's ideas of social justice. Furthermore, the *Give Us Our Blue Skies Back* activism seem to have been the earliest movement to point out the medical dangers of pollution and to employ science to protect the local community through 'neutral' and 'fair' scientific evidence, which was hoped to present the best and most 'just' way to help society.

As the anti-pollution movement in Tobata highlights, it needed housewives for Japan to point out the multi-faceted harmful nature of pollution, predominantly because housewives and mothers possessed a highly developed sense for even the subtlest physical and psychological changes amongst their family and community members. Already in 1950, when the Nakabaru women's association started their anti-pollution activism, but especially since the early 1960s when the Sanroku women's association developed into fierce anti-pollution activists, Tobata's women had been noticing the more frequent occurrence of colds, and increasing incidence of eye irritations and asthma, amongst their children.[40] Sensitive to mood changes in their family, women started to notice that their elderly parents were becoming increasingly irritable, as they

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[36] Ibid.

[37] In 1958, the Edogawa Factory of Honshū Paper, which produced semi-chemical pulp around 8.8 kilometers upstream of the mouth of Edogawa river, started releasing untreated, black wastewater into the Edogawa river, which greatly damaged the fish populations upstream and in Tokyo Bay. Having their demands to put an end of this practice neglected, the fishermen of the Urayasu Fishing Cooperative walked against the Edogawa Factory of Honshu Paper. Clashing with the police, that guarded the factory, several fishermen got injured, whilst others were arrested.
K. Wakabayashi, *Tōkyōwan no kankyō mondaishi* [History of environmental issues in Tokyo Bay] (Tokyo, 2000).

[38] Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii II,* p. 57.

[39] S. Nakayama and C. Imamura, 'Taikiosen to shufu no uttae hindo ni tsuite' [On air pollution and the frequency of housewives' appeal], *Japanese Journal of Industrial Health*, 9:1 (1967), p. 41.

[40] Interview with Misako Katō, 17 April 2012.

were often trying to hide the extent to which they were suffering from asthma and severe cough, in order not to put a burden on their children. Children had to fight against the disappointment when their mothers did not allow them to play outside due to severe soot or smog, making them feel prisoners of pollution inside their small apartments, where the summer heat became unbearable, especially on days when the wind blew from the direction of the main industrial sites forcing windows to remain closed. Even the husbands working for the local industries suffered from pollution in their workplace, and many complained about loud factory noises at night from round-the-clock production schedules that had become commonplace by the 1960s, depriving them of the sleep they desparately needed to fulfil their physically strenuous eight-hour shifts. The wives themselves often felt overwhelmed with the futile burden of having to clean the house several times a day, scrubbing laundry for hours to remove the dark stains that soot and sulphurous gases had left, whilst simultaneously being drowned in worries about the effects of pollution on their children's bodies, and how to pay for the medical bills that had piled up due to the frequent hospital visits. The mental stress, worry and fear often lead to a 'pollution neurosis', and many citizens, especially mothers and housewives, were close to physical and mental collapse from the burden of trying to save their family's economic, social and physical well-being and health.

Whilst the term 'pollution neurosis' (*kōgai neurōze*)[41] had been coined by the late 1950s, with the media worryingly reporting on the psychological damage pollution inflicted on the population, critical engagement with this mental health issue remained sparse, both in academic and general discourse.[42] To put it differently, whilst it was clearly visible that mental distress and physical pain from pollution were common phenomena, Tobata's women were one of the few social actors to systematically analyse the cause of 'pollution neurosis', and to petition for changes in the natural surroundings of the city to protect its citizens. Listening to the worries of the local community, analysing the root cause of disharmony in their family, and paying close attention to how pollution also threatened plants, flowers, trees and animals, Tobata's housewives managed to reveal the dense web of influence pollution had on their everyday life. Although such phenomena were not hidden from other parts of society, the majority of people did not pay

[41] The print media, especially newspapers, started to report on a 'neurosis' (*neurōze*) from pollution, especially from noise and vibration, from around 1953. Whilst in the beginning, this neurosis was simply referred to as '*neurōze*' as the term *kōgai* was not yet widely used – instead, people referred to the exact cause, such as *baien* (soot and smoke) or *soon* (noise) – it is made clear that their mental distress was caused by environmental pollution. From the late 1950s, the word *kōgai* appeared in the common discourse, and terms like *kōgai neurōze* became more widely used. Author's analysis based on a qualitative newspaper analysis of four newspapers (Asahi Newspaper, Yomiuri Newspaper, Mainichi Newspaper (West Edition), and West Japan Newspaper between 1953 and 1970, as described in Chapter IX.

[42] Whilst there is no secondary literature that analyses mental health issues in relation to pollution, or its media discourse, until at least the late 1960s, an analysis of academic writings and contemporary literature of the 1950s and 1960s did not reveal much critical engagement with the issues in academe or amongst the common population.

enough heed or failed to attribute sufficient 'importance' to everyday phenomena such as nervousness, irritation, distress and anxiety. In other words, it was women and mothers, having an evolved instinct to protect their children and family, who correctly interpreted subtle psychological and physiological changes as a medical and social danger, not trained doctors and politicians in Japan's early 1950s.

This 'everydayness' of pollution deserves special attention for several reasons. First of all for the simple matter of fact that historians often forget to pay attention to everyday phenomena, as those often seem too trivial, or often too unimportant to justify a thorough analysis. Daily tasks that had become regular habits, such as cleaning the tatami at least twice a day, not being able to open the windows during the summer heat during times when the wind blew from certain directions, using a separate 'pollution umbrella'[43] (*baien kasa*) to shield against particulates, thereby protecting their clothes and make-up, had quickly become commonplace, making it hard for historians to detect them as noteworthy. Even evolutionary adaptation to airborne pollution, such as the growth of much thicker, denser nasal hair in Tobata,[44] a physical self-defence reaction to fend off at least some soot particles from entering the human respiratory system, often remain unnoticed by outsiders, rendering pollution's impact on human bodies, society and the environment a dense web of everyday phenomena hard to detect and to systematically analyse.

Investigating exactly this everyday awareness of pollution, as well as society's fight against and adaptation to it, is a task that promises a plethora of new insights into Japanese society in the 1950s and 1960s. Whilst historians and social scientists have extensively analysed Japan's impressive rise to an economic superpower between 1955 and 1970,[45] thoroughly analysing most economic policies and major corporate systems, the very side effects of this

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[43] Archival materials at the Environment Museum Kitakyūshū highlight that many women in Tobata's 1950s and 1960's possessed three umbrellas: one against rain, one against the sun, and one against soot particles. Literally, the term '*baien kasa*' translates as soot and smoke umbrella.
Unpublished and un-catalogued archival materials based on interviews, Environment Museum Kitakyūshū.

[44] Hayashi, *Kore ga kōgai da.*

[45] As literature on the Japanese postwar economy, especially the high-growth years 1955-1970, is too extensive to list in its entirety, some examples by Japanese and foreign authors, published in the 1970s, 1980s, 1990s, and the 2000s, are given as reference.
E.F. Denison and W.K. Chung, *How Japan's economy grew so fast: the sources of postwar expansion* (Washington, D.C., 1976); H. Patrick and H. Rosovsky (eds.), *Asia's new giant: how the Japanese economy works* (Washington, 1976); N. Zepke, *The hundred year miracle: economic development Japan, 1918-1970* (Auckland, 1976); E. Vogel, *Japan as number one: lessons for America* (Cambridge/MA, 1979); T. Ushiro, *Japan's postwar economy: an insider's view of its history and its future* (Tokyo, 1983); Y. Kosai, *The era of high-speed growth: notes on the postwar Japanese economy* (Tokyo, 1986); M.C. Brinton, *Women and the economic miracle: women and work in postwar Japan* (Berkeley, 1992); T. Ito, *The Japanese economy* (Cambridge/MA, 1992); W. K. Tabb, *The postwar Japanese system: cultural economy and economic transformation* (New York & Oxford, 1995); D.B. Smith, *Japan since 1945: the rise of an economic superpower* (New York, 1995); K. Kōshiro, *A fifty years history of industry and labor in postwar Japan* (Tokyo, 2000); I. Buruma, *Inventing Japan: from empire to economic miracle* (London, 2005); S.Ōkita, *Postwar reconstruction of the Japanese economy* (Tokyo, 1992); M. Iyoda, *Japanese postwar economy: lessons of economic growth and the bubble economy* (New York & London, 2010).

massive jump in industrialisation, such as pollution, and society's responses to it, have received scant attention. In other words, whilst Japan's history of economic progress and technological advancement has been studied in abundance, its history of pollution, at a time when most Japanese cities were amongst the most polluted globally, remains largely unknown in English scholarship.[46] Focusing on those historical actors, mothers and housewives, who not only suffered extensively from pollution, but who also had a great sense of how the burden of living with dark skies impacted residents' mental well-being and social interactions, this dissertation hopes to reveal both individuals' and communities' responses to severe industrial pollution between 1950 and 1970 with the example of Tobata in Kitakyūshū City. It thereby hopes to show how both the silent battle with and accommodation of pollution had become part of citizens' everyday life, a part of 'modern' lifestyle, not only in Kitakyūshū, but in most of Japan's metropolises and industrial centres. It is one of the few works that focus on 'everyday history', or *Alltagsgeschichte*, which became popular in Germany in the 1980s. By looking at ordinary housewives and their daily chores, this dissertation writes history 'from the bottom'. It contributes to Japan's largely neglected 'everyday history' (or the history of everyday life, as it is also called), complementing recent works focusing on everyday life in areas such as consumption (e.g. Francks/Hunter, *The historical consumer*).[47] Considering that much of the existing historiography discusses the 1960s from the perspective of industrial growth, Japan's miracle economy, and modernisation, investigating how ordinary citizens experienced Japan's growth, and concomitantly, its rising pollution levels poses a different conceptual approach that provides a new understanding of the 'everydayness' of industrial pollution, and citizens' adaptation to it.

Housewives rarely make history, and also in Tobata, the women's activism has been widely overlooked and neglected by historiography. This stems not so much from a gender bias in historiography as from the absence of open confrontation in the women's anti-pollution movement. Much of the female activism was not detectable or visible as a protest movement since it lacked confrontation, civil disobedience, violence, overt resistance and claims for financial compensation by pollution victims. This, coupled with the absence of local anti-pollution protests by organised labour or other such open confrontations as demonstrations, has given rise to the assumption amongst both academics and the general population that civic

[46] Exceptions, covering some parts of Japan's history of pollution in English, are the following: S. Matsui, *Industrial pollution control in Japan: a historical perspective* (Tokyo, 1992), T.S. George, *Minamata: pollution and the struggle for democracy* (Cambridge/MA & London, 2001), Robert Stolz, *Bad water: nature, pollution, and politics 1879-1950* (Durham, 2014), and B.L. Walker, *Toxic archipelago: a history of industrial disease in Japan* (Seattle, 2010). Whilst focusing more on environmental changes, also Conrad Totman's *Japan: an environmental history* (London, 2014) coverse some aspects of postwar pollution.

[47] P. Francks and J. Hunter (eds.), *The historical consumer: consumption and everyday life in Japan 1850-2000* (Basingstoke, 2012).

activism against pollution was negligible in Kitakyūshū's 1950s and 1960s. Whilst on a superficial level, only limited civic protest was detectable, Yahata Steelworks' Labour Union did not mention the word 'pollution' even once in their *Neppu* (Hot Blast) newspaper in the 1950s and 1960s.[48] Despite being one of Japan's largest enterprise union with 43,000 to 46,000 members through the 1960s, the Steelworkers themselves did not protest against pollution, whilst at the same time being one of the most active unions fighting for higher wages in the 'spring wages offensives'.[49] The absence of any form of social protest against pollution in Kitakyūshū, other than the *Give Us Our Blue Skies Back* movement, until at least 1969/1970 makes the women's activism a unique example of an active civic group, and renders them as one of the most impressive civic movements against industrial pollution in Japan's 1960s. Much of their motivations not only to continue, but also to expand and to intensify their movement in the mid-1960s stemmed from the women's conviction that 'if we do not do it, no one else will', as one of the moment's core members, Chiyoko Imamura, expressed.[50]

However, due to the media's disposition to report predominantly on social movements that display elements of disruption and violence, according to Vliegenthart and Walgrave (2012), the women's activism has largely been overlooked by contemporary media, which renders it hard for historians to detect and decipher the women's activism as a social movement.[51] Put differently, the Western association of protest with open confrontation, which most political scientists and historians inexplicitly and explicitly apply, has obstructed the view on Tobata's *Give Us Our Blue Skies Back* movement as a social protest. However, as this thesis highlights, Kitakyūshū is an outstanding microcosm for the study of civic anti-pollution activism based on the principles of collaboration amongst diverse social actors, and mutual aid, which is defined as egalitarian, unhierarchical, reciprocal help amongst community members, such as housewives, academics and medical doctors, and also local bureaucrats.

However, detecting and interpreting such 'co-operative revolt' as a social movement is a difficult task. Its analysis faces major hurdles, mainly because the unhierarchical character and ad-hoc nature of such movements meant that official notes regarding the actors' motivation and modes of action were rarely taken. Also in Tobata, minutes from the women's regular meetings

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[48] Yahata Steelworks Labour Union, '*Neppu: yahataseitestujo rōdōkumiai kikanshi'* [Hot Blast: bulletin of the labour union of Yahata Steelworks] (Yahata, 1949-1971.

[49] New Japan Steel Yahata Labour Union, *Neppu no kiseki* [Paths of the 'Hot Blast': fifty-year history of New Japan Steel Yahata Labour Union] (Kitakyūshū, 1995); Suzuki, 'The death of unions' associational life?', p. 200.

[50] Imamura, 'Aozora ga hoshii', p. 132.

[51] R. Vliegenthart and S. Walgrave, 'The interdependency of mass media and social movements', in H. Semetko and M. Scammel (eds.), *The Sage handbook of political communication* (London, 2012), pp. 387-98; J. Smith et al., 'From protest to agenda building: description bias in media coverage of protest events in Washington, D.C.', *Social Forces*, 79:4 (2001), pp. 1397-1423.

do not exist, requiring an oral history approach to understand what drove them to act, how they developed their strategy, and what elements helped them succeed in their battle against pollution. (Archival) research in Kitakyūshū revealed that Tobata's *Give Us Our Blue Skies Back* movement left behind a plethora of primary sources, including the aforementioned independent documentary from 1965, five reports depicting the women's research (published in yearly intervals between 1965 and 1969),[52] abundant photographic and audio-visual materials on their activism,[53] and a large-scale opinion survey from 1966 that includes the voices of approximately 13,000 of Tobata's citizens on pollution,[54] information on their health condition, and their evaluation of political responses to pollution. Such ample materials not only pose a rarity amongst unhierarchically organised, more spontaneous grassroots movements, making the *Give Us Our Blue Skies Back* activism an outstanding case for academic research on co-operativist social movements, but also complement this dissertation's oral history approach with an in-depth analysis of previously unknown primary source material. Especially the five *Give Us Our Blue Skies Back* research reports, out of which four were only declassified and released to the public in 2014, pose an invaluable source. They contribute to a better understanding of the women's strategy and allow for new interpretations regarding the keys to success for civic movements. The women's five *Give Us Our Blue Skies Back* research reports (1965-1969), coming in at over eight hundred pages, in which the women introduced their analysis regarding the multi-faceted nature of industrial pollution and political responses to it both in Japan and around the globe, impressively highlight the sophistication and scientific viability of the women's long-term research. Distributed amongst the local population between 1965 and 1969 to inform Tobata's citizens about pollution's immense adverse effects on human health, flora and fauna, people's

[52] Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii I*; Id., *Aozora ga hoshii II;* Id., *Aozora ga hoshii III;* Id., *Aozora ga hoshii IV* [Give us our blue skies back IV] (Kitakyūshū, 1968); Id, *Aozora ga hoshii V* [Give us our blue skies back V] (Kitakyūshū, 1969).

[53] Photographs are available in published and unpublished form. The largest pool of photographs in print are presented in Eidai Hayashi's *This is pollution* (1968), which includes several dozen photographs from the 1960s depicting Kitakyūshū's (especially Tobata's) pollution. Hayashi *Kore ga kōgai da*.

Unpublished photographs, probably taken by members of Tobata's women's associations as well as by Eidai Hayashi, have been available in Kitakyūshū's Central library since 2015, under the reference title *Aozora ga hoshii: shinseikatsuten shiryō – shiryō* [Give Us Our Blue Skies Back: materials from the New Life Exhibition. Documents] The photographs are part of a complete set of copies of all five *Give Us Our Blue Skies Back* research reports, on top of the anti-pollution materials presented at the New Life Exhibition in 1963 and 1964 by the Sanroku Women's Association of Kitakyūshū.

Whilst there is no clear reference to the photographer, it is very likely that the women, as well as Hayashi, took the photographs during their activism, and later exhibited them at the annual New Life Exhibitions between 1963 and 1969. Audio-visual materials, such as the women's appearance on TV and on the radio, are likely to exist. However, for numerous reasons (e.g. the lack of a complete archiving practice at NHK prior to 1970, logistical problems), audio-visual materials were not included in this analysis.

[54] The results of this opinion survey, conducted as written questionnaire by the collaborative women's association of Tobata in 1966, are presented in the second *Give Us Our Blue Skies Back* research report from 1966.
Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii II.*

lifestyle and well-being, as well as on the local community as harmonious social unit, they can be counted amongst some of the most comprehensive accounts on how a whole community interpreted the impact of pollution and tried to cope with the effects of rapid industrialisation and mass production at their locality in the mid-1960s. Despite the humble educational background of many of the movement's members, the *Give Us Our Blue Skies Back* reports are amongst the most substantial research activities on pollution by civic actors rather than by scientific elites in Japan's 1960s. Containing not only data, but also quotes from local residents collected in interviews or questionnaire surveys, and the female activists' evaluation of existing legal and political attempts to curb emissions, the research reports provide invaluable access to contemporary engagement with pollution and allows for new interpretations of citizens' reaction to, and understanding, of pollution.

Similarly, the *Give Us Our Blue Skies Back* documentary produced by the women's societies' camera team in 1965 provides impressive original audio-visual evidence on how their entire community struggled with pollution, and interviews embedded in the documentary reveal how powerless citizens felt vis-à-vis an overbearing state and private enterprise. Providing original voices from Kitakyūshū's citizens and activists in 1965, the documentary is a unique source, as it was not produced by professionals with the aim of dispersion amongst the population, but was originally intended as a depiction of the state of pollution in Tobata in the mid-1960s by local citizens.

Whilst the aforementioned rare existence of diverse original primary resources and the *Give Us Our Blue Skies Back* movement's impressive nature as one of the longest-standing examples of grassroots activism against industrial pollution in Japan's 1950s and 1960s would already justify an in-depth analysis, these were not the only reasons why Tobata was selected as case study. A major rationale for choosing Tobata as a research object stems from the fact that the opinion survey conducted by the women's associations provides a largely representative account of how a whole community struggled with pollution. In 1966, when the members of Tobata's women's associations went from door to door, distributing questionnaires concerning citizens' medical condition as well as their perception of the local government's policies against pollution to all of Tobata's roughly 27,000 households, the activists managed to gather and evaluate replies from 13,000 families (see Fig. 2). Assuming a household size of around four people, which was common in the 1960s, this equals about half of Tobata's inhabitants at that time. Sampling large parts of Tobata's citizens, and evaluating their lengthy responses and personal opinion pieces on pollution, the women's survey poses one of the most representative and exhaustive sources of

how a whole community experienced pollution on an everyday basis in the mid-1960s, from which this dissertation benefits immensely.

Fig. 2: Members of the West Tobata Women's Association evaluating the 13,000 survey questionnaires in 1966.

This unique existence of such profuse, representative primary sources allows for an in-depth analysis of Tobata's women's motivation and tactics. The newly gained access to the *Give Us Our Blue Skies Back* research reports, and the unusual angle on the 'everydayness' of pollution, provides unexpected insights into Japan's 'hidden' collaborative anti-pollution activism, and helps generate new understanding of social reactions to pollution and co-operative post-war social movements that had been largely hidden from the gaze of historians.

Whilst the main discourse is placed on issues of gender, and women's ideas regarding a good, or just, society (as later discussed), this thesis also contributes to the discipline of environmental history. Investigating Tobata's women's movement from the perspective of Japan's post-war history of pollution, it is one of the few works that investigates social changes due to industrial emissions in the 1950s and 1960s. Its novelty also stems from the fact that it is the first to highlight and critically analyse the dichotomy of producing both national and personal wealth, whilst at the same time destroying the basis for a prosperous life, the environment, through pollution. It is one of the first works reveal the tensions between supporting Japan's rapid industrialisation through affiliation with a major manufacturing company during Japan's economic 'golden age', and coping with the social and moral effects of the destruction of human health, the social fabric, and the environment due to industrial production.

As this thesis reveals, local housewives in Tobata could not help but to act, in order for their community to survive: fearing that pollution would inflict pain and irreversible effects on their family and neighbourhood, especially through its physiological impact to the human body, but also by destroying the environment and through harming the psyche of the local community. The members of the local women's associations initiated their large-scale movement, in their despair that politicians and industrialists were only half-heartedly trying to abate pollution, and that even their own husbands showed little support for the women's discomfort with unrestricted growth and the development of their city into a dumpsite for industrial effluents and exhaust gases. They thereby did not rely on state institutions for support, as these official organs were not regarded as neutral due to vested interests and their obvious support of industrialisation, but instead followed an 'associationist' grassroots approach based on civic activism. Realising that their social status as women, outside of paid employment and without access to conventional, established networks and power circles that could influence politics, put them in a subordinate position, Tobata's women's association pursued a collaborative approach to help their immediate community.[55] This collaboration was first and foremost based on the ties amongst the local women, most of them housewives, whose joint suffering and common fear posed a strong bond, and who had realised that in Japan's post-war democracy their demands might be heard only if they acted collectively.

The women's determination not to rely on social and political elites to solve their problems, but to contribute to a better society and a more habitable environment through their own efforts is also pronounced in the beginning of their documentary, where the women proclaim that 'we [women] want to want make this city a healthy, liveable city by our own hands, for which we all, in co-operation, produced this documentary'. The frequent use of *shimin*, citizens, and not the more widely used term residents (*jūmin*), reveals the women's awareness of their position as a democratic social movement with strong elements of grassroots activism in, and for, the local community. Similarly, the frequent use of 'collaboration' shows Tobata's women's advanced appreciation of civil society as a life based on mutual aid and co-operation, to benefit the community's well-being. To some extent, it can even be argued that Tobata's women initiated

[55] Tobata's women did not refer themselves as subordinate, and the primary sources suggest high confidence amongst most female activists, who approached the CEOs of Tobata's major companies in person or in written correspondence. However, at the same time, the women were aware that, especially because of their status as women, they would not be successful if just 'one or two' of them demanded better environmental protections. As pointed out in an article by Imamura from 1969, the women's strength was that they had united and had joint efforts in an established civic organisation. From Imamura's article, it becomes clear that the women were aware that, due to their gender, political role, and educational background, they could only be successful if they overcame this lack and social subordination by focusing on their strengths, such as attention to detail and an understanding of changes in their (social) environment. Imamura, 'Aozora ga hoshii'.

a ‘cultural revolution of collaboration’, replacing state institutions due to their apparent failure to curb pollution. The local women, in an effort to save the people, took over functions commonly ascribed to the government, hoping to compensate for the lack of effective solutions to reduce emissions from amongst the bureaucracy. Although Tobata’s women had fewer officially recognised competencies such as university degrees (granted by state institutions), they acted, spurred on by their belief that their devotion to the cause and their practical experience would compensate for their lack of formal education. Having been denied access to universities in their youth, Tobata’s women initiated a movement where they not only taught each other, but also received instruction from scientists, without state involvement, in order to generate new knowledge themselves. By studying the natural sciences, and through generating new scientific understanding, which they disseminated amongst the local population, Tobata’s women could participate in the generation of ‘knowledge’, a prerogative that had previously remained in the hands of (predominantly male) institutionalised scientific elites. Dispersing their knowledge, the women were not only able to contribute to the creation of ‘truth’, but also enabled the population to question the definitions and interpretations provided by the state regarding development, pollution and modernity.

The women’s practice of self-governance, especially in regard to pollution abatement, as well as their ideas of mutual aid, such as the exchange of resources and information for society’s benefit, reflects their high social consciousness. The women’s activism against the dominance of the ‘developmental state’ of the 1950s and 1960s was spurred by the hope to create a more free and equal society, removing social ills. The women’s *Give Us Our Blue Skies Back* research reports and Chiyoko Imamura’s writing provide some insight into the female activists’ motivation, namely equality, social justice, mutual aid, solidarity, freedom from dogmatism, and non-hierarchical social structures.[56] Distrusting established parties on both sides of the ideological spectrum due to their lack of action to abate pollution, and regarding political parties as part of the greater authoritarian system that hoped to protect the *status quo*, the women were able to critically examine local and national anti-pollution policies without partisan bias.[57] This distrust

[56] The same is also true for the voluntary nature of the women’s network and their non-hierarchical character, with both vertical and horizontal co-operation, that hoped for the improvement of society without state influence. Tobata’s anti-pollution activism by the 6,500 female members of the women’s associations was not based on vertical hierarchies and dependencies, but instead was organised into thirteen independent subgroups. Leadership roles were only loosely defined, and all women were requested to engage critically and actively in the planning and execution of the anti-pollution movement.
Imamura, ‘Aozora ga hoshii’, p. 130-134.

[57] The women’s distrust of political parties is best depicted in the *Give Us Our Blues Skies Back III* report (1967). In 1967, Tobata’s collaborative women’s association sent letters to all members of Kitakyūshū’s city parliament, asking their political representatives to elaborate on their vision and concrete plans on how to combat pollution in Kitakyūshū.

and disapproval of local politicians and bureaucrats is most concretely expressed by Imamura: 'Amongst politicians, there are few who consider us residents, few who think about pollution prevention measures from the stance of residents […] In reality, most of them pledge to do so during their campaign, but once they are elected, they are not interested in pollution anymore; instead, they make a face as if they could not be less concerned about the issue'.[58] Investigating the stance of government officials regarding pollution protection, Tobata's females argue that 'had the bureaucracy pursued the principle that citizens should come first in the past, citizens would not have suffered from pollution.' However, instead of merely accusing politicians and bureaucrats, the female activists also put partial blame on Japanese citizens for the government's inertia: 'We cannot just blame the bureaucrats [for our suffering from pollution]; also the citizens, who have tolerated [the bureaucrats'] behavior bear responsibility [for pollution's intensity]'.[59]

These statements, coupled with the women's complaint that representatives from all parties, including those at the left, in Kitakyushus's parliament show little interest in and commitment to pollution abatement,[60] reveal a highly critical stance regarding the shortcomings not only amongst industry, but also amongst politicians, the city administration, and Kitakyūshū's citizens themselves. The women's 'neutral' stance, without political party affiliation of labour union membership, thereby helped them voice criticism towards all political ideologies, including the communist and socialist parties. It was furthermore a precondition for their activism to maintain a simultaneously conservative and progressive ideological position, as the women borrowed various ideas and adjusted them to their local situation. Having no clearly defined leader, the women of Tobata were not answerable to authorities outside their movement, regardless of whether the authority was governmental, industrial, or academic in nature. However, in contrast, Tobata's women cleverly managed to demand and to achieve accountability and receptiveness from the industries and local politicians. According to anecdotes, the women's association's 'pollution auntie', Mrs Ōya, followed factory workers on their way to work, secretly entering the private company grounds amidst the masses of workers several times, and demanded

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When receiving only few honest, elaborate answers, no matter if from the democratic, progressive or communist parties, the women clearly expressed their disappointment with the whole political spectrum. Furthermore, the women highlight both in *Give Us Our Blues Skies Back IV* and Hayashi's *Yahata no kōgai* that most answers lacked concreteness and commitment. As Imamura pointed out, many women harboured distrust vis-à-vis local politicians, as they tend to make empty promises. Imamura uses the colloquial phrase '*shiranu kao'* – 'they make a face as if they do not know', which show how frankly she discussed the issue, from the standpoint of Tobata's housewives.
Imamura, 'Aozora ga hoshii', p. 132; Interview with Eidai Hayashi, 12 May 2012; Kitakyūshū City Tobata Ward Women's Association, *Give Us Our Blue Skies Back III.*

[58] Imamura, 'Aozora ga hoshii', p. 132.

[59] Ibid.

[60] Ibid.

to speak to the manager about pollution.[61] Other women swamped the local government with phone calls, letters and visits, interrogating the authorities regarding the city's past, present and future anti-pollution measures so that politicians could be made liable for a possible lack of fulfilment of their self-proclaimed plans.[62]

I.II 'Ordinary housewives': social and educational background of Tobata's *Give Us Our Blue Skies Back* activists

The title of this dissertation suggest that most of activists were females outside of paid employment, predominantly with an 'ordinary', average socio-economic and educational background (that is, middle-class women without tertiary education). Whilst the women of the *Give Us Our Blue Skies Back* movement never discussed their socio-economic background, age, and employment situation, there are numerous cues that led to their being characterised as 'ordinary housewives', which will be discussed in the following, starting with age and class, followed by education.

Whilst membership registers of Tobata's women's associations in the 1950s and 1960 are lacking, photographic materials of the women in activism suggest that most members were between 40 and 60 years of age. Akiko Mōri, one of the central figures of the movement, was born in 1917, and thus in her mid-40s and early 50s during the prime of the women's activism. According to Eidai Hayashi, most of the core female activists were at least in their forties in the 1960s.[63] Although no data of the composition of Tobata's women's associations in the 1950s and 1960s exists, membership registers in other women's associations in Japan in the 1970s and 1980s reveal a strong dominance of middle-aged women with children above junior high school age. The study of a women's society in Ōme City, close to Tōkyō, for example reveals that in 1983, none of the members were younger than 40 years old, with 25 out of 78 respondents being between 40 and 49, and 44 members in their fifties. In other words, over two thirds of the women's association's members in Ōme were above 50. Correspondingly, only 10.6 percent of all members had children under the age of 15, with the majority of women having adult children.[64]

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[61] Hayashi, *Yahata no kōgai.*
[62] Hayashi, *Yahata no kōgai;* Kitakyūshū City Tobata Ward Women's Association, *Aozora ga hoshii III*.
[63] Interview with Eidai Hayashi, 12 May 2012
[64] Manfred Ringhofer, 'Ōmeshi in okeru fujinkai soshiki genjō ni tsuite' [About the present condition of the women's association organisation in Ōme City], *Ōsaka sangyō daigku kenkyū kenkyūjohō* [Research report of Ōsaka Industrial University's research], 7 (1983), pp. 116ff, accessed 13 February 2017 at http://www.osaka-sandai.ac.jp/file/rs/research/archive/7/07-09.pdf

Whilst it is hard to compare the comparatively small women's society in Ōme in 1983 with the 6,500 members' strong women's associations in Tobata's 1960s, the demographic composition in Tobata shows similar tendencies. Judging from the pictures of the women's movement, most of their activities took place during daytime.[65] The accounts by the women, as documented in *Yahata no Kōgai* (1971) by Hayashi, reveal that the female activism was time-intensive: the train ride from Tobata to Professor Nose's laboratory located in the neighboring Yamaguchi prefecture took nearly two hours each away, which means that the female amateur researchers repeatedly spent complete days on their analysis of pollution. Similarly, producing a documentary of nearly 30 minutes length, without prior experience in screenplay writing, filming, cutting and editing, is not a task that could be done exclusively on weekends. Even considering the help the women would have received from Eidai Hayashi, who claims to have written the screenplay for the documentary, it is very unlikely that the women in the camera team were pursuing full-time jobs or raising young children.[66] Thus, in light of the general age composition of members of women's associations in the 1970s and 1980s, the time-consuming nature of their activism, and the photographs showing predominantly middle-aged women amongst Tobata's female activists, it is assumed that the majority of the active core of the *Give Us Our Blue Skies Back* movement were homemakers above the age of forty, with children above primary school level. Chiyoko Imamura's accounts reveal that only after the first success of the women's activism, non-members consulted them about asthma amongst their children, who often temporarily stopped attending (primary) school.[67] Although not openly voiced, this anecdote shows the general pattern that mothers with younger children were not members of Tobata's women's association, whereas most middle-class, middle-aged women were. Looking at Hayashi's photograph of a middle-aged woman holding an infant, whose face was pitch black from industrial soot, it becomes obvious that the women's aim to 'protect children's health' was more abstract, not only referring to their own children, but to all children in the community, including their grandchildren.[68]

Whilst the women referred to themselves more often as 'women' (*fujin*) than as 'housewives' (*shufu*), evidence suggests that numerous activists were indeed homemakers. The two most active members, Akiko Mōri and Chiyoko Imamura, had formerly worked as primary school teachers, but were not in paid employment during the *Give Us Our Blue Skies Back*

[65] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii: shinseikatsuten shiryō – shiryō* [Give Us Our Blue Skies Back: materials from the New Life Exhibition. Documents] (Kitakyūshū, 2015).
[66] Interview with Eidai Hayashi, 12 May 2012.
[67] Imamura, 'Aozora ga hoshii', p. 132.
[68] Interview with Misako Katō, 17 April 2012

movement.[69] Chiyoko Imamura furthermore explained in a journal article from 1969 that in the beginning, the women's activism was often regarded as pastime for women 'with free time and money' (*ohima to kane ga aru*), which shows that Tobata's women's association indeed was a place for predominantly middle-class women outside the labour force.[70] Moreover, whilst the members of two entire women's associations in Tobata lived in some of the city's major industries' corporate housing, neither written accounts, nor the interviewees mention that any of these women were personally working for any of the local heavy industries. What is more, numerous written accounts show that quite a number of husbands were furious about the women's activism, shouting at their wives 'who do you think gives us our daily food?'[71] This is a hint that in many cases, the husbands were the sole breadwinners, on whose income the family depended. Such anecdotes suggest that most of the women's associations' members were not directly employed by Kitakyūshū's industrial giants, but rather stay-at-home mothers or homemakers married to either blue or white collar workers employed by Kitakyūshū's major industries. Considering that many of the female activists cleaned their tatami at least two to three times a day, and spent considerable time doing laundry, full-time employment was highly improbable, or even impossible, due to the time-consuming nature of their housework due to pollution.

Whilst wages in most of Kitakyūshū's major companies, especially at Yahata Steelworks, were higher than the national average in the 1950s and 1960s, there is little mention of the female activists' socio-economic background.[72] However, considering Nakabaru's women's decision in 1950 not to directly confront the polluting company, Nakabaru Electric Power Station, as 'several of the women's society's members were married to high executives ' there, it can be assumed that several members had high social standing.[73] In general, the absence of *murahachibu* (shaming of the activists) in the community, the cooperative nature of local politicians and industry, and the inclusion of the women's association's members in official local government functions[74] in 1964 is a sign that the activists of Tobata's women's associations were not social outsiders, but respected members of their community. This stands in contrast to many other anti-pollution movements, such as in nearby Minamata, where the pollution victims were often silenced or shamed, also due to their lower socio-economic status as fishermen or farmers.[75]

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[69] Ibid.
[70] Imamura, 'Aozora ga hoshii', p. 132.
[71] Interview with Misako Katō, 17 April 2012.
[72] Interview with Kazuhiro Kumai, 10 May 2012.
[73] Imamura, 'Give us our blues skies back', p. 130.
[74] E.g. Chiyoko Imamura in the Kitakyūshū City Pollution Control Measures Council (*Kitakyūshūshi kōgai bōshi taisaku igikai*) as only representative from civil society in 1964.
[75] S.T. George, *Minamata: Pollution and the struggle for democracy in postwar Japan* (Cambridge/MA, 2001).

Although it is unclear whether the female activists were predominantly the wives of blue or white collar workers, it seems that several families were relatively affluent, due to the competitive salaries[76] and benefits such as subsidised housing, healthcare, and foodstuff Yahata Steelworks provided for its employees.[77] Whilst the female activists complained about the high costs of pollution due to rising medical expenditure and high cleaning bills in both the *Give Us Our Blue Skies Back* research reports and the documentary, there is no mention that this financial pressure was existential.[78] In other words, whilst the women accused local companies of polluting the air at the expense of society, reaping the benefits of unencumbered growth whilst the local community suffered, they were not fighting for mere (economic) survival. As it was not financial pressure, but a feeling of social injustice and health concerns that motivated the women's activism, Tobata's women refrained from demanding monetary compensation for their suffering, which also hints that their economic status must have allowed them not to.[79]

Despite the women's predominantly middle-class socio-economic background, and their, at first sight, 'modern' lifestyle in some of Japan's earliest and most luxurious *danchi* (modern housing complexes), many citizens were in reality trapped in a more working-class lifestyle. Due to high levels of air pollution, numerous women lived in apartments that were not much cleaner than simple pre-war housing with open flame kitchen and earthen ground. Also, whilst the rapid spread of consumer electronics such as washing machines and vacuum cleaners in the 1960s provided many women with more leisure time, opening the doors to a more affluent middle-class lifestyle, Tobata's modern *danchi* did not automatically translate into a better lifestyle. Whilst housewives saved time by using modern electric appliances, the much higher frequency of cleaning activities in many parts of Tobata did not allow many women to spend this time on leisure.

Whilst disparities regarding socio-economic background, employment history, and lifestyle certainly existed amongst the 6,500 members of Tobata's women's association, the biggest difference was in terms of education. As a whole, Tobata was well known as city of

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[76] Interview with Kazuhiro Kumai, 10 May 2012.

[77] Yahata Steel Works Executive Committee Compilation, *Yahata Seitetsujo hachijūnenshi* [Eighty years of the Yahata Steelworks]（Kitakyūshū, 1980).

[78] E.g. Kitakyūshū City Tobata Ward Collaborative Women's Association*, Give Us Our Blue Skies Back II.*

[79] The photographs of the women during their activism, at the yearly New Life Exhibitions, as well as during interviews with the media, show elegantly dressed ladies, wearing either high-quality *kimono* or modern western fashion. Whilst the majority of the photographs were taken at special occasions, for which social etiquette required to dress in some of the best clothes the women owned, most ladies give the impression of enjoying a middle-class, or upper-middle, class lifestyle. Hayashi recalls that before many events, especially those with media representation, Tobata's women activists would go to the Hairdresser's to have their hair arranged. Many women would also not spare the effort to buy new clothes or accessories, which is a further sign that the economic situation of many allowed for such extra purchases. Interview with Eidai Hayashi, 12 May 2012.

learning, with an abundance of educational facilities, including the famous Meiji Technical College (which later became Kyūshū Institute of Technology) established in 1909 by the progressive industrialist Kenjiro Matsumoto. Whilst the Meiji Technical College was a competitive school for men, training some of the most skilled engineers and technicians in pre-war Japan, Tobata's women also had access to higher education. The Fukuoka Prefecture Kokura Normal School (*Fukuokaken Kokurashi Shihan Gakkō*), established in 1908 in neighbouring Kokura to train both male and female teachers, contributed to the outstanding quality of teaching in Tobata. As one of the few institutions of higher education that were open to females before 1945, it attracted excellent female students from a wide area to study in Kokura, who, upon graduation, often stayed in the region, as they had either found employment in local schools, or a local spouse. This means that for Tobata's young females, the Kokura Normal School provided both high quality instructors and a career opportunity, giving motivation to study hard. Some activists of the Give Us Our Blue Skies Back movement, such as Akiko Mōri, themselves were educated at the Kokura Normal School and later worked as local primary school teachers. However, this was not the highest educational achievement of member of Tobata's women's society. Toyogaori Tachibana,[80] the first chairperson of the new democratic women's association of Sanroku, was employed as professor at one of Kokura's junior colleges, due to her education in the United States of America.

However, although some of the female activists had a strong educational background, others had received considerably less education. As Katō highlights, most due to limited access to secondary or post-secondary education for women before 1945, and due to a lack of schooling during WWII, the majority of the female members had not received any education beyond middle school.[81] Tobata being not only a centre of learning, but also an industrial hub, attracted a substantial number of skilled male workers from the countryside, especially from southern Kyūshū. In contrast to the majority of the local women, however, the educational background of their wives tended to be low. *Yahata's Pollution* vividly describes the effort many of Tobata's women put into understanding the science behind pollution, and the frustration amongst some of them when struggling to do calculations and equations, either by hand or with a calculator. For many, it was the first time to draw graphs, and in order to advance their pollution research, it is said that some women started to learn mathematics from their children, who were studying equations at middle school.[82] Imamura recalls their struggle: 'Learning how to use a calculator,

[80] Name in Japanese characters: 立花富がおり.

[81] Interview with Misako Katō, 17 April 2012.

[82] Interview with Eidai Hayashi, 12 May 2012, and Hayashi, *Yahata no kōgai.*

how to calculate the square root, or how to draw a logarithmic graph, was a continuous hardship and pain that cannot be expressed in words. I do not know how many times we were about to give up in the middle. However, every time we had reached our limits, the voice in me told me that if we [women] do not continue this movement against pollution, Kitakyūshū will never regain its blue skies. That is why we worked so hard.'[83]

How unusual it was for housewives to be engaged in such activities becomes evident in the following episode from Hayashi: when the women were doing pollution research in Professor Sadao Iki's laboratory at Kyūshū Institute of Technology, they ran out of graph paper, for which they went to a nearby stationary. Asking the clerk for graph paper, he initially refused, arguing that women do not need graph paper, but 'only students at Kyūshū Institute of Technology'. When the women replied they were doing scientific experiments, he shook his head, and only hesitantly sold the paper to Tobata's women.[84]

The previous analysis revealed the high probability that the majority of the female (core) activists were housewives. However, *being* housewives does not automatically mean that these women *perceived* or *defined* themselves as housewives. Delineating the women's actual self-perception proves a difficult task, also because Tobata's women certainly had a multitude of different identities, both in their social life and during their activism. In their everyday life, they performed roles as wives, mothers or even grandmothers, sometimes coupled with identities as female employee, members of civil groups or neighbourhood associations, or as spouses of industrial workers or local entrepreneurs. During their *Give Us Our Blue Skies Back* activism, the women furthermore assumed roles as social activists, scientists, documenters, researchers, educators, or even politicians. They interacted, on an equal footing, with local politicians and Tobata's mayor, with whom two representatives from the Sanroku's women's society visited the national headquarters of Nittesu Chemical Corporation in Tōkyō in 1960 to demand cleaner production.[85] They signed Pollution Control Agreements with major companies, such as in 1963 with Nittestu Chemical Corporation, and met with executives of Yahata Steelworks to discuss industry's commitment to pollution-abatement (1967).[86] Acting at a local level, where the women could exert more personal leverage as they knew numerous power elites in person, Tobata's women interacted face-to-face with high executives of local industries.

[83] Imamura, 'Aozora ga hoshii', p. 131.
[84] Hayashi, *Yahata no kōgai.*
[85] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*
[86] Ibid.

These are just a few examples highlighting that Tobata's female activists had left the private sphere of their house and acted in major public circles, such as the local government and public universities. From being local mothers and housewives they had emerged into public figures represented on TV, radio and in the newspapers, and by displaying their research activities at the yearly New Life Exhibitions over five times, they certainly were more than 'ordinary housewives'. However, this thesis argues that, to a large extent, the women's self-perception was not that of political activists, scientists, or public educators. Instead, Tobata's females perceived these public roles as temporary, an addition to their roles as housewives and mothers, rather than as a replacement of their previous social identity.

Whilst few documents where Tobata's women deliberate on their identity exist, their terminology – they predominantly referred to themselves as *fujin* (women), *kateifujin* (women of the house), *shufu* (housewives), and *shimin* (citizens) – give rise to the assumption that most women identified themselves as housewives. Chiyoko Imamura explained in 1969 that the strength of their movement was that '*katei fujin*', 'household women', united as an institutionalised group and collaborated for the sake of protecting their family's health.[87] The repetitive use of '*kateifujin*', '*kateijin*' (house woman), or '*kaiin*' (members [of the women's association]) shows that the women did not primarily regarded themselves as movement activists, also because of the prevalent connotation of political activist with radicalisation and use of force.[88] Elaborating on their identity, Imamura highlights that they were 'neither politicians, nor academics' (*seijika demo nai, gakusha demo nai watachitachi*).[89] Rather, the women perceived themselves as members of a community, whose role it was to strive for the improvement of the situation of others. 'Our belief as people of the home' was to make the life of others 'healthier and better, […] which gave us strength.'[90]

In this thesis, Tobata's women are referred to as 'housewives' because this seemed to have been their major identity. The women conducted most of their initial experiments at home, using utensils from their kitchen while hanging out white fabric samples in the roofs of their apartment buildings to measure pollution. They used the kitchen table as their 'study desk' when reading newspapers in great detail to find articles referring to pollution, which they cut out and glued in their 'pollution scrap book'. They studied at home, with (or from) their children, in order to solve equations in their pollution research. In the evening, they expressed their discontent and fears regarding pollution, discussing their activities with their husbands over diner. In other

[87] Imamura, 'Aozora ga hoshii', p. 130f.
[88] Ibid.
[89] Ibid.
[90] Ibid.

words, much of their activism was closely related to their household. What is more important, however, is that their motivation, as previously shown, was not based on a political ideology or dogmatism. Rather, the women acted as 'rational housewives' who hoped to protect their extended families and local community.

Whilst one of their major goals was to reduce the impact pollution had on their children's health condition, it would not do the women justice to argue that they mainly acted as concerned mothers. It is certainly true that in Japan, the majority of mothers are said to experience a strong emotional attachment towards their young children, as expressed in the concept of *amae* (emotional one-ness between them and their offspring), and that Japanese mothers define themselves predominantly in their social role as mothers.[91] However, in the case of Tobata's women's association, motherhood seemed not to have been their major motivation. Whilst trying to protect their children's health, Tobata's women seem to have predominantly acted in their understanding as female members of the family and community, whose role it was to improve social justice and to protect the livelihood of their city. Rather than presenting themselves as social activists, they acted in their capacity as enlightened housewives, using the skills they acquired as homemakers, as members of a civic organisation, and as pollution researchers, to improve the community.

Being a (non-working) woman, in general, meant less social influence and power than most men; however, at the same time, middle-aged housewives also possessed a form of unspoken authority, an aura that often did not allow refutation, so that male power elites often did not dare to refuse the demands of women, as this thesis shows. In other words, whilst, as females removed from the epicentre of politics by over one thousand kilometres, Tobata's women were in no easy position to influence politics, however they were not automatically powerless either. By portraying themselves as concerned middle-aged housewives (rather than as young mothers or politicised female activists), they were able to receive considerable attention and respect, and make their demands heard. Acting in their self-perception as housewives, a function that was closest to their personal lives, Tobata's females became one of the most sophisticated and longest-running anti-pollution movements in Japan's early postwar history. As much of the movement's success was based of their identity as ordinary housewives, they are referred to as such, although, in many respects, their activism was anything but 'ordinary'.

Whilst the activism by Tobata's women's associations was one of the few anti-pollution movements that was, from its beginning in 1950 until it dissolved in 1969, entirely led and

[91] T. Doi and J. Bester, *The anatomy of dependence* (Tokyo, 1973).

executed by women, it goes without saying, that men certainly had an impact on movement. As mentioned previously, the women found supporters amongst male academics and received some guidance from the local government official, Eidai Hayashi, who was in charge of the women's social study. Although in the 1950s, the women's pollution activism emerged without any male influence, once Tobata's women's associations expanded the scope of their activism around 1963, they received support from male 'power elites'. Without any male figure in an established position, whether in government, academia or industry, it would have been extremely hard for the women to gain access to other men in powerful positions, which would probably have prevented them from becoming a nation-wide known movement. Having said that, these male figures were predominantly facilitating the women's movement and opened doors for further research, rather than shaping the women's movement.

The most important male figure in the women's movement was without doubt Eidai Hayashi, who was recruited by the local government in 1963 as new member of Tobata's social education division. His responsibilities included women and youth, rendering him in charge of the study courses at Tobata's women's associations from 1963 to 1969.[92] Having been exposed to social injustice at young age, in his home in central Kyūshū (Kawaramachi) – Hayashi's father was tortured and killed by special police forces for giving refuge to runaway Korean forced labourers in his temple in the early 1940s –, and having studied at the liberal Waseda University during the radicalised early 1960s, Hayashi had developed strong personal interest in ideas of democracy, equality, and social movements.[93] During his time in charge of women's learning in Tobata, he supported the local housewives' endeavours to combat pollution by inviting renowned academics such as Professor Yoshikatsu Nose, Japan's representative to the WHO, to Tobata to lecture about pollution. Whilst being only a small act, it provided Tobata's housewives with the opportunity to ask Nose for support in their analysis, and eventually was the reason why Nose invited them to his laboratories at Yamaguchi Medical University for joint pollution research. Nose himself had experience with pollution abatement, as he was a major figure in reducing cement pollution in nearby Ube City (Yamaguchi prefecture) in the early 1950s.[94] In other words, the connections Tobata's females could establish with male social elites opened the doors to new opportunities and started a virtuous circle of support. This substantially contributed to their success and brought the female protagonists national and international fame, that in 1972,

[92] Interview with Eidai Hayashi, 12 May 2012.
[93] Interview with Eidai Hayashi, 12 May 2012.
[94] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen.*
For Nose's research, and pollution-abatement air policies in Ube, see: Yoshikatsu Nose, 'Effects of exposure to air pollution on community health', *Yamaguchi Medical School Bulletin*, 7:3 (1960), pp. 91-105.

representatives from Tobata's women's association presented their movement at the 'Earth Summit' (United Nations Conference on the Human Environment) in Stockholm.

This, however, should not mean that Tobata's social activists needed males for their cause to succeed. What is crucial, as later outlined in the adjusted Advocacy Coalition Framework model, is that this initial support from 'power elites' gave the women's activism credibility, and helped them acquire new resources and social capital. As in the 1950s and 1960s, nearly all such 'power elites' were male (the share of female politicians, bureaucrats, academics and industrialists was negligible), there were few others ways to achieve recognition and to convince the local government and industry to reduce emissions other than by seeking some form of support from males. It was not because Hayashi was a man that Tobata's women's associations were successful; rather, because Hayashi was in a position (as local civil servant) to demand a higher budget for female social education in Tobata, with which the women funded their studies, the documentary, and printing costs for their reports.[95] Also, due to his position as government official, Hayashi could not only ask professors at nearby universities to instruct as part of the city's social education programme, but was also granted his request. This shows that, as nearly all social capital was in the hands of males in the 1960s, Tobata's women often had no other choice but to ask men for support.

Whilst men like Hayashi and Nose were crucial for the women's success, one should not overestimate their influence. Both the anti-pollution movements in Nakabaru (from 1950) and Sanroku (from 1960) emerged without any male influence. By the time Hayashi was put in charge of social education in 1963, Tobata's women had already been highly sensitised for pollution issues, and could look back at a long history of activism. Although Hayashi facilitated the formation of an overarching women's study movement against pollution in 1964, which included all thirteen women's groups, and provided logistical, intellectual and psychological support during the movement's history, he was neither the reason for the emergence of the women's anti-pollution movement, nor the most crucial reason for their success. Rather, similar to male academics supporting the women's research, he was a facilitator who brought in a different set of experiences and social capital.

I.III Women as political and historical agents in Japan's 1950s and 1960s

[95] Hayashi, *Yahata no kōgai.*

As the previous section revealed, the *Give Us Our Blue Skies Back* movement was the brainchild of and executed by women, with only sporadic support from male 'power elites'. As Margaret McKean shows, women also played a major force in other anti-pollution movements, both as rank and file members and as leaders.[96] Whilst McKean predominantly focuses on the 1970s and early 1980s, the 1950s and 1960s were two decades in which women shaped civic activism, both on the local and national level. Above all in the burgeoning anti-pollution, peace, and consumer movements, such as the anti-nuclear activism in the 1950s, the Seikatsu Movement concerned with food prices and safety in the 1960s, and the co-op movement establishing co-operative stores, Japanese women were a major force.[97] Similar to Tobata's *Give Us Our Blue Skies Back* movement, it was largely through their participation in women's associations that females not only learned about democracy and their civic rights, but also where they found similar-minded partners for social activism.

One of the most well-known female civic movements was the campaign against nuclear bombs initiated by the women's association of Tōkyō's Suginami Ward in the mid-1950s. When on 1 March 1954 the radioactive fallout from the detonation of the United States' first thermonuclear hydrogen bomb in the Bikini Atoll took not only the lives of eleven Japanese fishermen of the *Lucky Dragon*, but also spread fears of contaminated fish, housewives in the Suginami Ward in Tōkyō took action. They initiated a signature campaign to prevent radioactive tuna being sold on the city's fish markets, which added the idea of consumer protection to their pacifist agenda. Expanding the scope of their demands to include a ban on hydrogen bombs in order to save human and animal life, the campaign quickly spread all over Japan. With an unprecedented thirty million signatories, which equalled around two-thirds of the adult population of Japan, Suginami's housewives had initiated and managed Japan's biggest signature campaign in post-war history in 1954, within a few months of its inception.[98]

Similar ideas amongst women to protect their communities from hazardous food also posed the major motivation for women to engage in consumer movements and to unite against overpriced foodstuff in co-operative consumer associations (COOP) since the 1950s. Whilst not widely discussed in scholarship, co-operatives and consumer groups started activism as soon as

[96] M.A. McKean, *Environmental protest and citizen politics in Japan* (Berkeley, 1981).
[97] M. Estevez-Abe and J. Gelb, 'Political women in Japan: a case study of the Seikatsusha network movement', *Social Science Japan Journal,* 1:2 (1998), pp. 263-279.

[98] M. Yamamoto, *Grassroots pacifism in post-war Japan: the rebirth of a nation* (London & New York, 2004)*;* E. Maruhama, *Gensuikin shomei undō no tanjō: tōkyōto suginami no shumin pawaa to suimyaku* [The birth of the anti-hydrogen bomb movement: citizens' power and their water vein at Tōkyō's Suginami ward] (Tōkyō, 2011); Hiroshima Prefectural Association against Hydrogen Bombs, *Gensuibaku kinshi gojūnen no ayumi* [Fifty year history of the movement against Hydrogen bomb explosion] (Hiroshima, 2014).

the Allied Occupation of Japan ended in 1952. Hoping to promote equality and social justice, as well as to protect the livelihood of all Japanese citizens, women protested against rising bread and gas prices in 1952, and later against the planned abolition of free school meals. In 1956, women bought milk in bulk and distributed it to local households at reduced prices to guarantee fair prices for major consumer goods as part of their notable '10 yen milk' movement, advancing their activism from protest to active interference in the market.[99] This impressively highlights that female consumer movements not only hoped to protect their local units from physical harm, but that housewives simultaneously also protested against corporate capitalism and overpriced daily necessities. By the late 1960s, a plethora of local consumer movements had developed out this grassroots activism, with some of the biggest, such as the *seikatsu club,* having a burgeoning base of tens of thousands of members.[100] Following ideas of mutual aid, the burgeoning civil movements and co-operatives of the 1950s and 1960s were an expression of concerns regarding social equality, corporate responsibility, peace, and the environment, amongst others.

Nevertheless, women as political subjects and political activists, outside of labour unions and feminist movements, have received scant attention. Only with the emergence of the 'professional housewife' amongst the rising middle class in the 1970s were women increasingly analysed as historical subjects and civic activists, such as in Ulrike Woehr's (2014) work on gender and citizenship in the anti-nuclear power movement in the 1970s, as well as by Anne E. Imamura and Robin LeBlanc (1999), who focused on housewives' local activism in the 1970s and 1980s.[101] This trend, prevalent in both Japanese and English language scholarship, to limit focus on development from the late 1970s and 1980s is evident in most literature on Japanese women by sociologists and anthropologists of the past two decades.[102] Despite attempts to 'gender' Japanese history, such as by Gail Lee Bernstein (1991) in *Recreating Japanese women, 1600-1945,* or in Barbara Molony and Kathleen Uno's (2005) *Gendering modern Japanese history,* scholars largely neglect the period of 1945 to 1970. Until the present, the major focus is placed on

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[99] 'Fujin' [Women], *Asahi Shimbun Nenkan 1953* [Asahi Newspaper Almanac] (Tōkyō, 1953), p. 257-78; 'Fujin/seishōnen' [Women/Youth], *Asahi Shimbun Nenkan 1956* [Asahi Newspaper Almanac] (Tōkyō, 1956), pp. 503-505.

[100] Seikatsu Club Seikatsu Collaborative Union Tōkyō, *Shakai no naka no seikatsu kurabu: shiron* [The Seikatsu Club inside society: historical discussion] (Tōkyō, 2013); D. Miller, *Consumption: the history and regional development of consumption* (New York, 2001); J. Restakis, *Humanizing the economy: co-operatives in the age of capital* (Gabriola Island, 2010).

[101] U. Woehr, 'Gender and citizenship in the anti-nuclear power movement in 1970s Japan', In A. Germer, V. Mackie and U. Woehr (eds.), *Gender, nation and state in modern Japan* (London & New York, 2014), pp. 230-254; A.E. Imamura, *Urban Japanese housewives: at home and in the community* (Honolulu, 1987); R. LeBlanc, *Bicycle citizens: the political world of the Japanese housewife* (Berkeley, 1999).

[102] L. Dales, *Feminist movements in contemporary Japan* (Abingdon, 2009); E. Dalton, *Women and politics in contemporary Japan* (London, 2015); S. Holloway, W*omen and family in contemporary Japan* (Cambridge, 2010); J. Liddle and S. Nakajima, *Rising suns, rising daughters: gender, class, and power in Japan* (London, 2000); A.S. Aronsson, *Career women in contemporary Japan*: *pursuing identities, fashioning life* (Abingdon, 2014).

the late nineteenth and early twentieth century, as well as the inter-war period, in addition to the aforementioned focus on the 1970s and 1980s.[103] Even works that span from the Meiji period to the present, including Germer et al.'s (2014) *Gender, nation and state in modern Japan*, largely fail to discuss women's roles and contributions to society in the 1950s and 1960s in depth.[104] This is also due to the tendency to discuss women's history under the premise of feminist activity for equality, rather than women's contribution to civil society, putting the focus largely on the institutionalised feminist movements.[105]

The few remarkable exceptions amongst female historians to focus on the role of women role in society, and their on-going civic contributions in the newly-emerging consumer and environmental movements predominantly through local housewives, are Vera Mackie's (2003) *Feminism in modern Japan: citizenship, embodiment and sexuality*, and Patricia Maclachlan's (2001) *Consumer politics in post-war Japan: the institutional boundaries of citizen* activism.[106] However, despite such attempts to analyse women's lives in the second half of the 20th century, works investigating female lifestyle and contributions to politics and society outside official channels remain scarce. There is still no established opus on Japanese women after 1945 that goes beyond feminist issues, emancipation and gender equality, and instead focuses on women's contribution to establishing a burgeoning civil society in the 1950s and 1960s.

The absence of any thorough history of female activism during the period is astonishing as the 1950s and 1960s were a key time for women seeking to explore their newly acquired democratic rights, and to raise their voice against social inequality. Starting to identity more with their role as women and mothers than as female workers,[107] with female membership in labour unions rapidly declining in the early 1950s, women became increasingly active in social movements.[108] Disillusioned with the violent acts of labour unions whilst simultaneously realising

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[103] G.L. Bernstein, *Recreating Japanese Women, 1600-1945* (Berkeley & Oxford, 1991)*;* B. Molony and K.S. Uno, *Gendering Modern Japanese History* (Cambridge, 2005); S. Shigematsu, *Scream from the shadows: the women's liberation movement in Japan* (Minneapolis & London, 2012), T. Shibahara, *Japanese women and the translational feminist movement before World War II* (Philadelphia, 2014)*;* K. Gulliver, *Modern women in China and Japan: gender, feminism and global modernity between the wars* (London, 2012); *M. Suzuki, Becoming modern women: love and female identity in prewar Japanese literature and culture* (Stanford, 2010); H. Tomida and G. Daniels, *Japanese women emerging from subservience 1868-1945* (Folkestone, 2005); B.S. Katzoff, *For the sake of the nation, for the sake of women: the pragmatism of Japanese feminism in the Asia-Pacific War, 1931-1945* (Ann Arbor, 2000).

[104] Germer/Mackie/Woehr, *Gender, nation and state in modern Japan.*

[105] Y. Koyabashi, *A path towards gender quality: state feminism in* Japan (New York & London, 2004).

[106] V. Mackie, *Feminism in modern Japan: citizenship, embodiment and sexuality* (Cambridge, 2003); P. Maclachlan, *Consumer politics in postwar Japan: the institutional boundaries of citizen activism* (New York, 2001).

[107] This can be seen also by the development that even the biggest female post-war labour dispute at the Ōmi Kenshi Spinning Company in 1954 was not an offensive for higher wages, but for gender equality at work and the end of 'pre-modern' practices of female discrimination (which included opening private mail conversations). H. Macnaughtan*, Women*, *work and the Japanese economic miracle: the case of the cotton textile* industry, 1945-1975 (Oxford, 2005).

[108] The rapid decline of female membership in labour unions rapidly in the early 1950s is also due to the increasing politicisation and radicalisation of labour unions.

that despite enthusiasm, the influence of women in politics remained marginal. The majority of women concentrated their activism on the few areas in which they could influence politics through local movements. Thus, rather than protesting for higher wages, women's fervour fell on issues of livelihood including consumer protection and pollution. Realising that government and industry had a strong interest in women and their role as *consumers and more importantly as influencers of purchases*, as the majority of household budgets were managed by females, Japanese women in the 1950s became politicised, rational consumers, tirelessly demonstrating against spiralling prices and campaigning for increased responsibility amongst producers and sellers with regard to food safety. Put differently, women started to realise that they had to use the 'power of their purse' to influence politics.[109]

This is also largely true for the female members of Tobata's *Give Us Our Blue Skies Back* movement, in which women found a vehicle to work against social injustice, environmental destruction, and the destruction of citizens' livelihood. Tobata is thus just another example where women, in many respects, had to define themselves as consumers and mothers in their fight for social justice, and become members of social movements. This is predominantly because other channels of political participation were still largely closed for women, as the low rate of approximately two percent female representatives in local parliaments throughout Japan's 1950s and 1960s reveals.[110] Even highly educated women from respected families, such as Akiko Mōri, a leading figure in Tobata's anti-pollution protest, failed to gain a seat in Tobata's local parliament in Japan's first post-war election, making Tobata's parliament entirely male (with the exception of one famous female *Haiku* writer).[111] Realising that the path into elected office was hard for women,[112] despite a constitution that readily guaranteed the equality of the sexes, Mōri

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[109] S. Buckley, 'Altered states: the body politics of "being-woman"', in Gordon, *Postwar Japan as history*, pp. 347-72.

[110] H. Takeyasu, 'Chiiki seiji e no josei sankaku wo habamu yōin [Factors obstructing women's underrepresentation in local politics]', *Kyōto Joshi Daigaku Gendai Shakai Kenkyū* [Review of Contemporary Sociology, Kyōto Women's College], 3 (2002), pp. 5-20.

[111] The only female democratic representative in the whole of Kitakyūshū in 1949 was a famous *haiku* (Japanese poetry) writer, which shows how important publicity and name recognition were to being elected in a male-dominated society.

[112] Only approximately two dozen women were elected to the National Diet every five years between 1950 and 1970, and the record number of thirty-nine female representatives achieved following Japan's first election with universal suffrage in 1946 was not met again until the 1989. This confirms the hypothesis that to become a national political representative, either a high degree of public recognition (such as through being the leader of the feminist movement, as in the case of Mumeo Oku), or party affiliation with the socialist or communist parties, was a prerequisite for elected office.

C. Bochel and H. Bochel, 'Exploring the low levels of women's representation in Japanese local government', *Japanese Journal of Political Science*, 6:3 (2005), pp. 375–92; K. Iwanaga, 'Women's political representation in Japan', in K. Iwanaga (ed.), *Women's political participation and representation in Asia: obstacles and challenges* (Copenhagen, 2008), pp. 101–29; T. Ogai, 'The stars of democracy: the first thirty-nine female members of the Japanese Diet,' *U.S.-Japan Women's Journal, English Supplement*, 11 (1996), pp. 81-117; Ministry of Foreign Affairs Japan, *Number of Female Diet Members*, accessed 3 July 2016 from http://www.mofa.go.jp/policy/human/women_rep5/059.html

turned towards grassroots activism, focusing on pollution, consumer prices, and anti-nuclear protest to shape politics from below.

Due to this lack of scholarly interest in women, as well as in civic movements and everyday history in the 1950s and 1960s, respectively, this thesis analyses female civic activism in the *Give Us Our Blue Skies Back* movement and its predecessors. The main discourse thereby focuses on gender, Japanese women's lives, and their social activism in the 1950s and 1960s. The women's anti-pollution activism is framed and discussed under the perspective of female political participation and emerging concepts of civil society and social equality. In other words, looking at gender in postwar Japan, this dissertation reveals different narratives of progress and modernity, and highlights diverging (female) interpretations of 'democracy' amongst women, often without reference to political parties. Looking at the 1950s with regard to female political activism not only reveals high democratic consciousness amongst a large number of women, but also reveals that the proliferation of civic movements through the 1960s was firmly grounded in activism starting from the late 1940s.

This burgeoning civic activism amongst Japanese women in consumer and peace movements, but especially in the thriving *Give Us Our Blue Skies Back* movement, introduces a new image of Japanese women, away from interpretations of Japanese women as docile and thrifty housewives, or conservative women on whom a democratic system was bestowed from above. Instead of being passive, apolitical mothers concerned with housework, the members of Tobata's women's associations became law-makers, local government advisors, scientists, journalists, film-makers, and educators, successfully executing one of Japan's most successful and longest-standing anti-pollution movement during the 1950s and 1960s.

I.IV Environment and pollution in Japan's post-war history

Similar to the lack of retrospective understanding of Japanese women in the role of historical agents, also issues pertaining to the environment and its impact on society have remained an understudied topic across the overarching historiography of Japan. Whilst environmental history emerged as a sub-discipline in the US in response to growing concerns about the ecosystem and the emerging environmental movements of the late 1960s and 1970s, it has remained one of the smallest sub-disciplines in Japan. Although both Rachel Carlson's seminal book *Silent Spring*, which opened the eyes of the American general public to the on-going environmental malpractices, and Shoji Hikaru and Kenichi Miyamoto's *Osorubeki Kōgai*

[Fearful Pollution] appeared around the same time, in 1962 and 1964, respectively, the latter found little influence in the common Japanese discourse.[113] In contrast to the United States of America, where the literary works by Carson, Ehrlich (*The Population Bomb*, 1968) and Hardin (*Tragedy of the Commons*, 1968) have had a considerable impact on public discourse and contributed to the passing of environmental legislation including the Clean Air Act in the early 1970s, Japanese environmental policy-making seems to have emerged in something of a vacuum, in the absence of viable reception of literary contributions on the topic.

This absence of major interest in pollution's impact on the ecosystem until the 1970s is astonishing, considering that Japan, notwithstanding its high degree of urbanisation, is covered by nearly seventy percent forest land. Whilst streaked with uncountable rivers, and surrounded by the sea along its 29,500 kilometres coastline, which translates into a continuous exposure to natural forces, the social impact of the environment in Japan remains a topic that deserves more attention than it has received thus far. Although the niche environmental historians and social anthropologists started to carve in the 1980s has been getting bigger, with very recent additions to the subject by both established experts in the field and newly emerging scholars, such as Kirby (2011), Totman (2014), Sugiyama (2015) and Batten/Brown (2015), the cultural, political and social aspects of nature in Japan, especially for the post-war period, are not yet sufficiently examined in historical research.[114]

The earliest works on the environmental history of Japan, dating back to the late 1980s, are shaped by US academic Conrad D. Totman, who examined human interactions with the natural world in Japan's Tokugawa and Edo period, whilst later extending his focus on forestry in Imperial Japan (1989, 2004, 2007).[115] As Japan's major representative of the *kankyōshi* (environmental history), Tsukamoto Manabu (1995) provides an excellent reinterpretation of the Japanese history by investigating the human-animal relationship in the Tokugawa era, whilst Gregory M. Pflugfelder and Brett Walker (2005) and Ian Jared Miller (2013) delineate the impact of animals on Japanese society over the past centuries in *JAPANimals: history and culture in*

[113] R. Carlson, *Silent spring* (Boston, 1962); S. Hikaru and K. Miyamoto, *Osorubeki kōgai* [Fearful Pollution] (Tōkyō, 1964)*;* P.R. Ehrlich*, The population bomb* (New York, 1968); G. Hardin, *Tragedy of the commons* (Washington D.C., 1968).

[114] P.W. Kirby, *Troubled Natures: Waste, Environment, Japan* (Honolulu, 2011); C.D. Totman, *Japan: an environmental history* (London, 2014); S. Sugiyama (ed.), *Economic history of energy and environment* (Tōkyō, 2015); B.L. Batten and P.C. Brown (eds.), *Environment and society in the Japanese islands: from prehistory to the present* (Corvallis, 2015).

[115] C.D. Totman, *Japan's imperial forest goryōrin, 1889-1946* (Folkestone, 2007); Id., *Pre-industrial Korea and Japan in environmental perspective* (Leiden & Boston, 2004); Id., *The green archipelago: forestry in preindustrial Japan* (Berkeley, 1989).

Japan's animal life and *The nature of the beasts: empire and exhibition at the Tōkyō Imperial Zoo*, respectively.[116]

In recent years, Walker (2010) has extended his focus on the environment's social impact, analysing human's destruction of nature in Japan's modern history with a specific focus on industrial disease in the 'toxic archipelago', the title of his book.[117] Similarly, Totman expanded his research on how concerns over the environment have influenced politics and society until present times in one of the most comprehensive books on the topic, *Japan: an environmental history* (2015).[118] Continuing this focus on the upset relationship between nature, industrial pollution, and human health in modern times, the present work is a representative of this newly emerging discipline of the 'ecology of suffering' (e.g. Walker, 2011). Analysing the effects of humans on the environment and scrutinising how pollution changed Japanese society between 1945 and 1970, the aim of this dissertation is to provide a new understanding of 'changes in human societies as they relate to changes in the natural environment', environmental history's main objective.[119] On top of investigating society's rapidly changing beliefs, attitudes and interactions with nature during the high growth years in the 1950s and 1960s, it also, conversely, investigates how nature (and the increasing destruction of it) shaped human behaviour in post-war Japan. This latter aim thereby focuses on the scientific and medical aspect of nature and pollution and outlines how the science boom in post-war Japan not only changed Japanese perceptions regarding the role of nature, but also contributed to a better understanding of the delicate relationship between state of the environment and human health. Highlighting the importance of scientific evidence to understand the hazards of pollution, on which Tobata's females had based their major arguments between 1950 and 1970, it is proposed that whilst ironically, the advent of modern science has greatly contributed to industrial pollution, it has also presented the major reason for the success of Japan's environmental movements, especially in Tobata.[120]

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[116] M. Tsukamoto, *Edo jidai hito to dōbutsu* [People and animals in the Edo period] (Tōkyō, 1995); G.M. Pflugfelder and B.L. Walker, *JAPANimals: history and culture in Japan's animal life (Ann Arbor, 2005);* I.J. Miller, *The nature of the beasts: empire and exhibition at the Tōkyō Imperial Zoo* (Berkeley, 2013).
Further literature in environmental history, investing the medical aspect of the environment by focusing on techniques and cures with which humans have tried to contain the spread of major epidemics, are Ann Bowman Jannetta's *Epidemics and mortality in Tokugawa Japan: 1600-1968* (1983) and *The vaccinators: smallpox, medical knowledge, and the 'opening' of Japan* (2007) by the same author.
A.B. Jannetta, *Epidemics and mortality in Tokugawa Japan, 1600-1968* (Princeton, 1983); Iden, *The vaccinators: smallpox, medical knowledge, and the 'opening' of Japan* (Stanford, 2007).
[117] B.L. Walker, *Toxic archipelago: a history of industrial disease in Japan* (Seattle, 2010).
[118] Totman, *Japan: an environmental history*.
[119] J.D. Hughes, *An environmental history of the world: humankind's changing role in the community of life* (London, 2001).
[120] Other movements of the 1950s and 1960s with a strong focus on scientific evidence were the development protests in Numazu, Mishima and Shimizu (1964) and the pollution victims' movements of the Big Four Pollution Cases.

In light of the shortcomings of existing definitions on environmental and anti-pollution movements based on Iijima (1979), which generally divide them into the four categories of (1) *anti-pollution victims' movements*, (2) *anti-development movements*, (3) *pollution-export protest movements*, and (4) *environmental protection and environment creation movements*, thereby not providing enough flexibility to sufficiently understand the multi-faceted motivation of the activists in the 1950s and 1960s, this dissertation refrains from compartmentalising anti-pollution movements.[121] It also eschews the intense debate on whether the movements that mushroomed in and outside Kitakyūshū in the 1950s and 1960s should be referred to as environmental movements or as anti-pollution movements, as the terminology does not increase the general understanding of the civic activism. However, unlike political scientists such as Barrett and Therivel (1995), who propose an absence of both environmental values and of a desire to protect the environment in the anti-pollution movements of the 1960s and 1970s, it will be argued that ideas regarding the protection of nature and human health coexisted in most of Tobata's movements. Despite referring to their own behaviour as 'public nuisance activism' (*kōgai undō*), the *Give Us Our Blue Skies Back* movement possessed a strong element of environmental protection and conservationist concerns from the 1960s, coupled with a discourse on the protection of human livelihood, health concerns and social justice, as this work will highlight.[122]

As the definition of 'public nuisance' as an 'act or omission that obstructs, damages, or inconveniences the rights of the community', which 'covers a wide variety of minor crimes that threaten the health, morals, safety, comfort, convenience, or welfare of a community' reveals, environmental pollution equates with harm to the nucleus of any society, namely local communities.[123] In this dissertation, attempts will be made to detect how in the 1950s and 1960s, social interactions in local communities were greatly impacted by industrial pollution, and how, on a hardly detectable, often non-confrontational or even subversive levels, social actors such as local housewives and scientists in Kitakyūshū tried to help the community through mutual aid and co-operation.

I.V Outline and structure

Despite the gravity of pollution, environmental movements, excepting the women's associations of Tobata, were sparse in both of Yahata Steelworks' major production centres,

[121] Categorisation based on Iijima, *Pollution Japan.*
[122] B.F.D. Barrett and R. Therivel, *Environmental policy and impact assessment in Japan* (London, 1991).
[123] 'Nuisance', *Free Legal dictionary*, accessed 4 July 2016 at http://legal-dictionary.thefreedictionary.com/nuisance.

Tobata and Yahata. Chapter II analyses possible reasons for this, depicting life in Yahata, an 'industry castle town' (*kigyō jōkamachi*) that was economically, politically and socially dominated by the Yahata Steelworks, Asia's biggest iron and steel producer and a major source of emissions. It highlights the driving role Yahata Steelworks played for the existence of both Yahata and Tobata as prime industrial hubs in Japan until the 1970s, arguing that a large share of the local population depended on the Steelworks for income, either directly as one of the over 60,000 employees at the company's peak, or indirectly, working in subsidiaries or related businesses.

However, the economic prowess of the Steelworks, the city's largest taxpayer and employer, alone cannot explain the absence of protest. More important for understanding the silence within the population were the emotional connections with the Steelworks, as Chapter II reveals. Being the major reason for Yahata's and Tobata's modernisation and economic progress, the Steelworks were often glorified, and citizens felt a sense of pride to be home to Asia's biggest iron and steel works, and Japan's only port integrated steel-mill site in the 1950s. The Steelworks, however, contributed more to the city than purely name recognition as an industrial hub. With several of Yahata Steelworks' sports teams and individuals competing in, and often even winning, national and international competitions, pride and gratefulness amongst locals was high, and through sports competitions, the city's sense of 'imagined community' became more pronounced. A further stimulus for the feeling of a collective group identity came from the many cultural events the Steelworks staged exclusively for their employees, as well as the yearly company festival (*kigyōsai*), which attracted hundreds of thousands of visitors from Kyūshū, Honshu and Shikoku, and thereby contributed to an increased sense of belonging to the Steelworks within the local population.[124] Fuelled by the rising economic success and national importance, by the 1960s the Steelworks had become synonymous with Yahata and (albeit to a lesser degree) Tobata, to where the major part of production had shifted in 1959. Providing welfare services to employees, and being glorified as a progressive, social employer in the cinematic hit *Rainbow of this Sky* (1958), the population of Yahata and Tobata found it very hard to protest against the cities' seemingly benevolent, progressive and internationally-acclaimed major employer. This emotional and economic domination of the Steelworks, which was assumed to be too big an opponent to fight, greatly diminished the disposition amongst the locals to protest, as highlighted in Chapter II.

Without doubt, life in Tobata's 1950s and 1960s was severely impacted by pollution. Despite the aforementioned economic, political, spatial, and emotional domination of the

[124] Yahata Steelworks, *Fukushika no shiori* [Guidebook on the welfare section] (Yahata, 1961).

Steelworks, Tobata's women's associations raised their voice against pollution. Chapter III (Life in smoke) narrates the 'pollution nightmare' affecting parts of the approximately 100,000 residents in Tobata and the roughly 350,000 residents in Yahata in the 1950s and 1960s. It highlights how not only individual families, but also nuclear communities in the neighbourhood, or even whole wards, were impacted by pollution. This is complemented by a depiction of how the everyday life of thousands of residents had to be adjusted in the face of pollution, resulting in changes of habits or of lifestyle in order to lead a life in the midst of industrial exhaust gases. It specifically discusses the impact soot and smoke not only had on citizens' mental and physical health, but also on animals, nature and even social practices in the community, impressively highlighting the pain and suffering it inflicted on residents of all social backgrounds. Dubbing their towns a 'department store of pollution' (*kōgai no depaato*),[125] thereby pointing out the vast 'range' of industrial pollution, including soot, smoke, sulphur and nitrogen oxides in the air, and cadmium in the bay, residents in the areas neighbouring Tobata's industrial production sites lived in one of Japan's most toxic environments. Based on interviews, primary literature and original voices from the mid-1960s that were captured in Tobata's Collaborative Women's Society's *Give Us Our Blue Skies Back* (1965) documentary on pollution, Chapter III was developed with the ambition of giving direct insights into how the lives of individuals were affected by pollution. Cleaning the tatami rooms up to five times a day, permanently boarding-up the windows of whole apartment complexes to protect the family from airborne particles and pungent odours, as well as spending up to one third of the household income on medical treatment on pollution-induced asthma as an example, the quality of life and even livelihood of many of Tobata's residents was greatly impacted by industrial pollution, as this dissertation reveals.[126]

Having discussed the conditions under which local women lived and started to act in 1950, Chapter IV aims at investigating democratic tendencies in Japan's post-war society. By analysing the roots of civic activism and the rise of civil society in the late 1940s and early 1950s on both a macro (Japan) and a micro-level (Tobata), it attempts to place the women's anti-pollution movement in 1950 in the context of post-war society. As such, revealing the indigenous roots of civic activism in Japan, it helps understanding why female anti-pollution activism emerged already in 1950 in Tobata. Pointing out that civic activism has deep roots in Japan and that citizens of Tobata critically engaged with diverse concepts of democracy after 1945, deliberating on the best form of government for their community in citizens' rallies and community meetings, it highlights that 'democracy' and 'civil society' are not Western concepts

[125] Interview with Satoshi Nakazone, 4 March 2013.
[126] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Give Us Our Blue Skies Back II*,; Id., *Give Us Our Blue Skies Back* documentary; Hayashi, *Yahata no kōgai.*

imposed on Japan during the Allied Occupation. In this manner, Tobata's citizens proposed their own interpretations of Western modernity away from the dogmatisms that came with it. The democratic practice at diverse civic associations in Tobata, including commerce and business unions, women's groups and the YMCA, highlights both the existence of 'indigenous' democratic ideas, ideals, and practice amongst Kitakyūshū's citizens, and an independent interpretation of modernity without reference to the West. Revealing that Tobata was not an exception, but part of a larger 'civic revolution', with tens of thousands of new civic organisations emerging and re-constituting immediately after the end of World War II all over the archipelago without support from GHQ (General Headquarters, equalling the Allied Occupation of Japan), it is argued that strong civic ideals (re)-emerged in the Japanese society of the 1940s and early 1950s. As Chapter IV shows, the emergence of a vast number of civic associations was the start of the ideological concept of a 'Japanese democracy' based on mutual aid and collaboration amongst Tobata's locals, later exemplified in Tobata's female anti-pollution movement.

Chapter V and VI constitute the major part of the micro-level analysis of civic activism against pollution in Tobata, focusing on the women's associations of the Nakabaru Ward and the Sanroku Ward, which were the initial driving forces of a movement that united and mobilised all thirteen women's associations of Tobata, totalling over 6,500 members, by the mid-1960s. The study of female anti-pollution and environmental activism between 1950 and 1969 highlights the unique existence of strong elements of independent female scientific investigation and a high motivation to cooperate with diverse social actors and 'power elites' including academics, the media, local parliamentarians and the administration. The analysis of Tobata's women's societies' movement, which was the only significant anti-pollution protest in Kitakyūshū, is thereby divided into two parts. Chapter V focuses on the beginning of the women's activism, which started with mothers deliberating on the increasingly negative impact of pollution on the streets in their neighbourhood before addressing the issue in a meeting of the Nakabaru women's society in 1950. It discusses the women's first field study on air pollution (soot) in 1950, with which they successfully petitioned the local government in 1951, as a result of which the local Nakabaru Electric Power Company installed expensive particulate filters (at a cost of approximately 1 billion yen).[127] Whilst Chapter V investigates the reasons for the small local women's group to mobilise against pollution in the 1950s and outlining how their movement was continued by the Sanroku Women's Association in 1960, Chapter VI focuses on the concerted anti-pollution activism by of Tobata's thirteen women's groups, the Tobata Ward Collaborative Women's

[127] Imamura, 'Aozora ga hoshii'.

Association,[128] between 1965 and 1969. It provides a detailed analysis of the five intense years of collaborative pollution research, awareness campaigns and 'environment PR' with considerable media attention, through which local housewives acted as scientific researchers, journalists, legislators, educators and administrators. As an intimate portrayal of Tobata's females' outstanding contribution to environmental protection in Kitakyūshū, Chapter VI considers the women's impact on the creation of environmental consciousness, showing how their activism and the subsequent media's uptake of it drew the attention of the local government, industry and the general population. Their role in creating a 'receptive audience' (*author's definition*) that displayed an increasing interest in pollution issues is analysed by applying an adjusted *advocacy coalition framework* (ACF) model (Sabatier/Jenkins-Smith, 1999), arguing that the women's activism, their 'environment PR', and their contribution to a better understanding of the negative effects of industrial pollution amongst the local population greatly contributed to Kitakyūshū's development into an Eco-Model City in the 1990.[129] Chapter VI is largely based on the five *Give Us Our Blue Skies Back* research reports (1965-1969), in which the women summarised their discussions and scientific investigations, presented findings from a large-scale pollution opinion survey of the local community, and revealed best-practice ideas from various global environmental policies. It analyses the viability of the women's scientific studies, which showed some of the earliest and clearest correlations between industrial emissions and absence rates from school amongst local elementary students. It thereby proposes that the women's scientific investigations contributed to a better understanding of the health hazards of pollution at a time when pollution science had not been covered by most national health institutes or research centres. As Chapter VI highlights, through their independent research, local housewives transcended the domestic sphere and greatly influenced local politics through informal channels in an effort to save the local community through their practices of mutual aid and 'just society'.

In light of the outstanding role science played in Japanese society in the 1950s and 1960s, Chapter VII consists of a discussion on the changing role of science during Japan's economic growth years, highlighting how science and technology, which had promised to equate democracy and equality, contributed to both the development of industrial pollution and its mitigation at the same time. It reveals that Tobata's women's associations strategically used scientific evidence to gain credibility as women, who have traditionally remained outside power circles. As one of the most 'science-optimistic' countries in the 1950s and 1960s, fuelled by the belief that through

[128] Whilst the complete name is Kitakyūshū City Tobata Ward Collaborative Women's Association, the women's group will be refered to as Tobata Ward Collaborative Women's Association for matters of simplicity.
[129] A. Sabatier and H.C. Jenkins-Smith (eds.), *Policy change and learning: an advocacy coalition approach* (Boulder, 1993).

scientific and technological research, Japan could develop economically and 'catch up' with the West. Science and technology however were often used to increase production and drive economic growth rather than to protect the environment. Being aware of the trend-setting role of science in Japan, and noticing the elites' sheer limitless belief in the 'objectivity', 'truth' and 'infallibility' of science, Tobata's women's association used science to give their demands for blue skies more power. As their research on the negative effects of pollution on the human body and mind, animals, plants, the eco-system, as well as on local communities and Japanese society as a whole were based on scientific investigation and indirectly approved by established scientists at renowned universities, Tobata's women could achieve a high degree of credibility and support both from amongst the population and the local government. Analysing the opinion polls[130] regarding people's interpretation of their relationship with nature in the 1950s and 1960s helps provide an understanding not only how Japan could become the world's most polluted country, but also how Tobata's female activism managed to succeed.

A large part of the *Give Us Our Blue Skies Back* movement's rising influence can be ascribed to significant media coverage since 1964. Chapter VIII thus explores the role of of the media in expanding the social acceptance and political influence of Tobata's anti-pollution activism. It thereby puts the developments in Tobata in a national context, analysing whether the rising environmental concerns in Tobata were an isolated case or part of a wider change of opinion regarding progress, pollution and the environment in Japan. The discourse analysis of national newspapers on environmental issues and pollution outlines the changing perception and level of interest in the environment, revealing a surprisingly critical stance regarding pollution much earlier than commonly assumed. It thus shows that amongst elites, a change in perception of pollution from a symbol of prosperity to environmental and human harm had already developed by the late 1950s, with environmental consciousness evolving amongst the Japanese population by the mid-1960s.

As the last chapter, Chapter IX intends to provide a broader view and some synopsis on the reasons for the success of Tobata's *Give Us Our Blue Skies Back* movement. It tries to highlight how the state's concepts of economic growth, consumerism, and modernisation were re-evaluated by Tobata's housewives, who came up with their own interpretations and exemplified the idea of a 'just society' based on mutual aid and co-operation. Being aware that open confrontation was a dead-end for civic activism in the 'industry castle town', also because family members often worked for the polluting companies, Tobata's females retained a cooperative

[130] Institute of Statistical Mathematics, 'Nihonjin no kokuminsei chōsa'.

rather than confrontational stance towards industry and government. Their social role as concerned middle-aged housewives and mothers contributed to their success, not only because their power was often underestimated by local elites, but also because social norms projected females as 'nourishing', allowing them to act in their proclaimed self-definition as protectors of their families. As Chapter IX reveals, Tobata's activists were not against modernity per se, but hoped for different interpretations of modernity and economic growth that included ideas of social justice.

This dissertation attempts to contribute to a new understanding of the democratisation of Japan, the influence of civil society on Japanese local politics, gender roles in post-war society, female political participation outside official channels, growth and consumerism in the 1950s and 1960s, the rise of ecological consciousness, and the political and social impact of anti-pollution movements in Japan between 1945 and 1970. Throughout the study of the microcosm of Tobata in Kitakyūshū (complemented with examples from neighbouring Yahata), it highlights that democracy was not imposed from above. Instead, an active civil society started an 'associationist revolution' in the late 1940s, forming new ideas and interpretations of a 'Japanese democracy' based on co-operation and mutual aid. It is proposed that social groups and informal civil society networks greatly influenced Japanese post-war politics and acted as agents of change without state encroachment, openly claiming civic rights through new channels of citizen participation.

Local anti-pollution movements, in which people were not fighting for political power and where no vested interests were at stake, have remained largely undetected in historiography. By investigating such a 'hidden', non-confrontational social movement in Tobata in the 1950s and 1960s, this dissertation hopes to contribute to a new understanding of civil movements as not necessarily protest-oriented and contested. A future extension of this research, with a wider geographical spread of such collaborative anti-pollution movements based on mutual aid, will be able to provide a new understanding of Japan in the wider historiography, highlighting that the high levels of anti-pollution activism by Japanese civil society often preceded those of other countries thought to be more environmentally concious.

I.VI Methodology

Archival research in Kitakyūshū between 2012 and 2015 revealed an outstanding degree of activism amongst Tobata's women's associations in the 1950s and 1960s, which, however, has been largely unnoticed by historians and Japan-specialists. Works that critically engage with the

Give Us Our Blue Skies Back movement on an analytical level are lacking both in Japanese and English scholarship. The major reasons for this are not only the sparse existence of primary materials,[131] but first and foremost the difficulty to access the existing materials. For non-obvious reasons, until 2014/2015, only a small number of primary sources on the movement have been declassified, necessitating a time-intensive oral history approach.

The only major primary sources that were available before 2014 were the women's *Give Us Our Blue Skies Back* research report II, printed in 1966, and the documentary with the same name, produced in 1965, which has been publicly accessible since 2009 in the Kitakyūshū Environment Museum.

Despite possessing copies of the *Give Us Our Blue Skies Back* research reports I, III, IV and V from 1965, 1967, 1968 and 1969, respectively, Kitakyūshū city government completely restricted access to these documents, which were exclusively available at the Planning Division of the local government building in Kokura. When the head of the Literary Archives of Kitakyūshū City asked for permission to read these four research reports, the city government denied her request, 'for the protection of personal information'.[132] It goes without saying that the author's request for declassification was denied, too, although nearly fifty years had passed since their publication. After continuous phone calls, Xeroxed copies of the four research reports finally appeared on the stacks of Kitakyūshū Central Library and in the Tobata branch in 2014. Whether this was directly related to the author's inquiries or not is speculation.

The five *Give Us Our Blue Skies Back* research reports provide innovative, invaluable insights into the women's activism, especially regarding their motivation, their self-perception and their tactics. Surpassing eight hundred pages in print, they greatly help understand not only the state of research of Tobata's women's association, but also the discourse on pollution in the mid-1960s. The women's independent research on the effects of pollution to humans and plants (which revealed significant findings such as the a clear correlation between exposure to industrial

[131] None of members of the women's association are known to have left behind any diaries or letters. Also the archives of the thirteen women's associations of Tobata, who were engaged in the anti-pollution movement, provide little information. Only the commemorative brochures issues every ten years to celebrate the twentieth, thirtieth, fortieth and fiftieth anniversary of the establishment of the Kitakyūshū City Tobata Ward Collaborative Women's Association provide a timeline and a minimal summary of the women's activities since 1948.
Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūnen no ayumi;* Id.*, Fujinkai no ayumi: sanjū shūnen kinenshi* [Development of the women's association: commemorative edition regarding the 30th anniversary] (Kitakyūshū, 1980); Id., *Fujinkai no ayumi. yonjūshūnen kinenshi* [Development of the women's association: commemorative edition regarding the 40th anniversary] (Kitakyūshū, 1990).

[132] Whilst the level of personal information provided in these four research reports seems not be high higher than that provided in report II, *Give Us Our Blue Skies Back III* included personal letters by several dozen managers of local companies. These letters, printed in full length and with the author's name, were written in response to the women's inquiries to disclose the company's investment in pollution-abatement and to announce the company's future plans on how to reduce emissions. Whilst one could argue that this was against privacy law, as none of the requests revealed that the answers would be printed and publicly available, the real reason why all research reports apart from volume II were only declassified in 2014 remains unknown.

pollution and oto-rhino-laryngological diseases in schoolchildren in Tobata), their comparative studies on pollution levels around the globe, the results generated from the opinion survey distributed to 27,000 households in Tobata, the compilation of national pollution legislation, and expert interviews such as by Japan's delegate to the WHO, Professor Yoshikatsu Nose, provide new materials rarely included in the discussion of Japan's history of pollution.

Through research in the Kitakyūshū City Literary Archives, the archives of the Kitakyūshū Environment Museum, the private archives of Eidai Hayashi, the West Japan Industry Club archives, the Ōhara Institute for Social Research, the National Diet Library, as well as in Kitakyūshū's public libraries, valuable primary sources, including photographic and audio-visual materials, could be located. The Kitakyūshū Environment Museum not only provided access to the women's *Give Us Our Blue Skies Back* documentary, but also to the environment volunteers' private notes and anecdotes.[133] The private 'Ariran archive' of Eidai Hayashi, whose passion for photography resulted in several thousands of pictures on the state of pollution and the women's associations' anti-pollution activism in the 1960s, as well as the city library of Tobata provided access to private photographs of the activists, thereby increasing the understanding of both the nature of the women's movement and the actual desolate state of Kitakyūshū's environment in the 1960s.[134] The Kitakyūshū City Literary Archives provided access to the deliberations by local politicians through the minutes taken at the city parliament's meetings. It furthermore helped understand local politics through scrutinising the biweekly *Shisei Dayori* (City Politics News), as well as the media discourse on pollution through the provision of access to newspapers from the 1940s, 1950s, and 1960s. Most knowledge on the activities of the diverse local civil groups between 1945 and 1970 was generated by analysing the publications of different women's organisations, Parent-Teacher-Associations, business and commerce clubs, and the YMCA in the City Literary Archives, as well as in the West Japan Industry Clubs Archives.

Whilst historians, both in and outside of Japan, have overlooked the women's outstanding activism that preceeded and surpassed many other anti-pollution movements in Japan, the government of Kitakyūshū City has increasingly reflected on the women's activism, although often only briefly. Partly to advertise their city as an environmental model, partly to provide access to primary materials, Kitakyūshū City published a summary of the city's pollution-prevention policies and activism in the twentieth century in 1998.[135] However, whilst their works

[133] Unpublished and un-catalogued archival materials based on interviews, Environmental Museum Kitakyūshū.
[134] Eidai Hayashi's private 'Ariran Bunsho' at his home in Tagawa.
[135] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen;* Id., *Kitakyūshūshi no kōgai taisakushi* [History of pollution countermeasures] (Kitakyūshū, 1998); Kitakyūshū City, *Pollution Countermeaures of the city of Kitakyūshū, Japan. How the people of Kitakyūshū overcame air and water pollution through cooperation and techonology* (Kitakyūshū, 1999).

on the history of pollution countermeasures published in both Japanese and English provides some information on the *Give Us Our Blue Skies Back* activism, the main focus is placed on efforts by the city government to combat pollution in the 1970s and 1980s.[136]

Further mention of the women's concerted activism in the mid-1960s can be found in pamphlets and presentations by the local government, as well as by national environment-related organisations. However, most official accounts are over-simplified, overlooking any form of disharmony and contestation, in order to receive international accolades and to establish Kitakyūshū City as environmental hub in Asia. Despite this trend, engagement with the *Give Us Our Blue Skies Back* movement has been insufficient, and few publications provide more than a rough summary, leaving areas such as the women's motivation, their methods, reasons for success, and their impact on society, completely untouched.

The only published secondary work that provides major insights into the women's movement from an insider's perspective is *Yahata's Pollution* by non-fiction author Eidai Hayashi. Hayashi, who was in charge of social education in Tobata, narrates the women's activism between 1964 and 1970. As supporter of Tobata's movement, Hayashi provides insightful information regarding the women's struggles, including personal stories. Whilst a major analytical focus is lacking, the book is full of anecdotes depicting the women's enthusiasm, but also their feelings of being torn between social expectations and their desire for a better environment.

In addition to a thorough analysis of the existing primary and secondary literature, this thesis draws heavily on an oral history approach. Focusing on everyday history as well as on 'hidden' environmental movements, which, due to their non-confrontational character, have received sparse scholarly attention, the two dozen[137] interviews conducted in the preparation of this thesis play an outstanding role in helping to understand the women's motivation and tactiscs, but also their fears and struggle. By combining literature research with oral history, this dissertation offers plenty of personal stories and anectodes, bringing the women's movement 'back to life', whilst helping to understand the female members' intricate reasoning. Whilst around two dozens interviewees contributed to the new findings of this dissertation, the majority of information from these eyewitness accounts comes from Eidai Hayashi. Other important sources are Misako Katō, a close friend of Akiko Mōri,[138] as well as the two daughters of

[136] Ibid.
[137] However, due to the informal character of some interviews, which helped establish a general idea of the situation in Kitakyūshū in the 1960s, and provided broader information, only the major fourteen interviews are mentioned in the appendix.
[138] Head of the Nakabaru Women's Organisation and initiator of their pollution research in 1950, and core member of the women's anti-pollution committee in the mid-/late 1960s.

Chiyoko Imamura.[139] However, due to the comparatively long historical distance of over forty-five years since the female *Give Us Our Blue Skies Back* movement ended, and because of the lack of membership registers of the women's associations in the 1960s, the identity and whereabouts of only a small number of activists, such as friends and family of two core members, Mōri and Imamura, could be established and traced. Thus, further interviews were conducted with former employees in polluting companies such as the Yahata Steelworks, schoolchildren suffering from asthma in the 1960s, bureaucrats working for Kitakyūshū's city government, and volunteers in the Kitakyūshū Environment Museum, all of who lived and/or worked in Kitakyūshū during its most polluted 1960s.

The combination of oral history and archival research was selected as methodological approach as it promised the most substantial, and novel results. Considering the co-operative elements and the 'hidden protest' of the *Give Us Our Blue Skies Back* movement, which also included elements of subversion, interviews with diverse social, political and scholarly actors of the 1960s were considered the most appropriate and effective way of understanding the motivation and ideology of the female activists. Through this oral history approach, the 'everydayness' of pollution and people's responses could be detected, enabling this thesis to depict people's 'pollution nightmare'. It furthermore brought to light novel perspectives on the dynamics of the 1950s and 1960s that are not depicted in primary or secondary materials, which helped establish a better understanding of grassroots democracy and environmental movements in the first decades of Japan as democratic state. Archival records, on the other hand, helped generate a better understanding of the common discourse on industrial pollution in the 1950s and 1960s, and how it changed over time. It provided access to statistical data, official statements by the local government, and insights into the scientific understanding of the 1950s and 1960s, amongst others.

Combining both an oral history approach with thorough archival research, this thesis aims to increase the general understanding of grassroots activism against pollution, not only in Tobata, but also in Japan. By focusing on 'outsiders', both geographically and socially, and by analysing gender-specific responses to pollution, the present work gives numerous nameless environmental activists a deeper historical significance, and reveals overlooked aspects of Japan's history of social movements. Combining both macro- and micro-level analysis, it is intended to increase the understanding of democratisation, anti-pollution protests, social movements, local politics,

[139] Especially the volunteers at the Environment Museum, who regularly give presentations regarding their experience with industrial pollution, the previous role of the Steelworks, local policies, and the civic anti-pollution activism by Tobata's women in the 1960s, posed a further invaluable source for this thesis' oral history approach.

science and gender in Japan between 1945 and 1970, highlighting an active civil society that protested against unrestricted growth and social inequality.

CHAPTER II: LIFE IN AN 'INDUSTRY CASTLE TOWN': Industry's spatial, economic and psychological domination of Yahata and Tobata

II.I Economic and political barriers: financial domination

'Yahata is *Yahata Steelworks*, and the *Steelworks* are Yahata' is probably the best description of how Yahata's citizens would have characterised their relationship with their local giant iron and steel company in the 1950s.[140] When the Japanese government started constructing the Steelworks in 1896, Yahata was nothing more than an unknown hamlet with a population of 1,715. However, the government-owned Steelworks soon attracted numerous companies, which opened branches in Yahata and neighbouring Tobata, supplying coal, coke, and brick for its construction and later to support its operations.[141] The huge national importance and outstanding scale of Japan's first integrated iron and steel work spurred the establishment of new private enterprises in the vicinity, and prospering iron, steel, cement and porcelain industries developed in Yahata and from 1912 also in Tobata.[142] Even in the few cases where there was no business relationship between the new companies and the Steelworks, most of Yahata's and Tobata's attractiveness for investment and entrepreneurship clearly resulted from the existence of the national heavy industry giant. Within a few years, both Yahata and Tobata, which used to be the most rural and poorest areas of what is known today as Kitakyūshū City, developed into prosperous cities, having attracted major companies like Yahata Steelworks, Hitachi Metals Asahi Glass, Mitsui Kasei, Yahata Chemicals, Toyo Ironworks, and Meiji Sugar, with more chemical and electronic companies following after 1945. This rapid, unexpected economic growth instilled a deep sense of gratefulness towards the Yahata Steelworks amongst citizens and the local administration, not only in Yahata, but also in Tobata. In the early twentieth century, Tobata's residents had watched the prosperous neighbouring cities Kokura, Wakamatsu, Moji and Yahata with jealousy, possibly even with a sense of inferiority. Whilst Tobata was a poor, insignificant fishing village, Kokura was a regional centre of commerce and military with an impressive castle that showed its historical importance. Moji was an international port city, Wakamatsu a thriving coal exporting town, and Yahata the home to the government-owned, national Yahata Steelworks. All these facilities had brought wealth and prestige to the cities, leaving Tobata behind.

[140] Similar ideas were also expressed in *Give Us Our Blues Skies Back II*: 'Yahata is the city of Yahata Steelworks', and in Kitakyūshū City, *Aoi sora wo miagete* [Make blue skies] (Kitakyūshū, 2006), p. 21: '*Yahata no machi wa seitetsujo no machi, yahata no seitetsu ga nihon wo yutaka ni shiteiru.*' ['Yahata City is the City of the Steelworks', and the Yahata Steelworks' are making Japan affluent.']

[141] N. Shimizu, 'The establishment of the state-owned Yawata Steelworks: the integrated Steelworks that promoted Japan's industrialisation when the country entered the modern industrial world as a latecomer', http://www.kiu.ac.jp/organization/library/memoir/img/pdf/keizai16-2-008shimizu.pdf

[142] Kitakyūshū City*, Kitakyūshūshi kōgaitaisakushi: bunsekihen*, p. 9.

Therefore, Tobata's sudden rise in size and prosperity after 1912, when major companies settled in Yahata's eastern neighbour due to the vicinity to the Steelworks, and when Tobata's population grew from less than 10,000 inhabitants to nearly 30,000 within five years, instilled gratitude towards Yahata Steelworks and the newly-emerging industries amongst large parts of Tobata's population.[143] Having neither ports and natural resources, nor historical importance, people clearly understood that their personal livelihood and prosperity depended on industrialisation. Just like people all over Japan were convinced that 'Steel is our Nation' ('*tetsu ha kokka ni nari'*, a famous saying after 1945), the population of Yahata and Tobata was convinced that not only their personal well-being and prosperity, but also national wealth and global political standing, depended on Japan's biggest iron and steel mill.[144] In the words of resident Taiko Fujimi, there was a general consensus in Yahata that 'Steel from Yahata [was] making Japan prosper'.[145]

These bonds remained strong at least until the early 1970s due to the extraordinary role Yahata Steelworks, both the Yahata site and what became, after 1959, the more advanced and more productive Tobata site, played in the lives of Yahata's and Tobata's citizens. In many ways, Yahata Steelworks shaped the outlook of the city (see *Fig. I)*, dominated local politics, and influenced people's daily lives. Since the beginning of the twenty-first century until the merger of Yahata, Tobata, Moji, Kokura and Wakamatsu to Kitakyūshū in 1963, all of Yahata's and most of Tobata's mayors were former executives or employees of the Yahata Steelworks.[146] In other words, whilst shaping city politics for decades in both pre- and post-war years, the political engagement of former Steelworks management also strengthened the bonds between the city's most important taxpayer and the local administration. This direct overlap translated into greater leverage for the local steel giant to influence policies regarding pollution and industrial development, and decreased the propensity amongst the local government to pass regulations that would negatively impact upon the industrial 'patron' of the city. Furthermore, the unity of the Steelworks and local politics also increased the citizens' identification with the city's biggest employer, and added to the Steelworks' prestige and loyalty from amongst the population. All these elements eventually decreased the citizens' willingness to demonstrate against industrial pollution.

[143] Interview with Eidai Hayashi, 12 May 2012.
[144] T. Kaneko, *Yahata Seitetsujo shokkō tachi no shakaishi* [Yahata Steelworks – factory workers' social magazine] (Tōkyō, 2003).
[145] Kitakyūshū City, *Aoi sora wo miagete,* p. 21.
[146] Yahata Steelworks Executive Committee Compilation, Yahata Seitetsujo hachijūnenshi [80 years of the Yahata Steelworks]（Kitakyūshū, 1980).

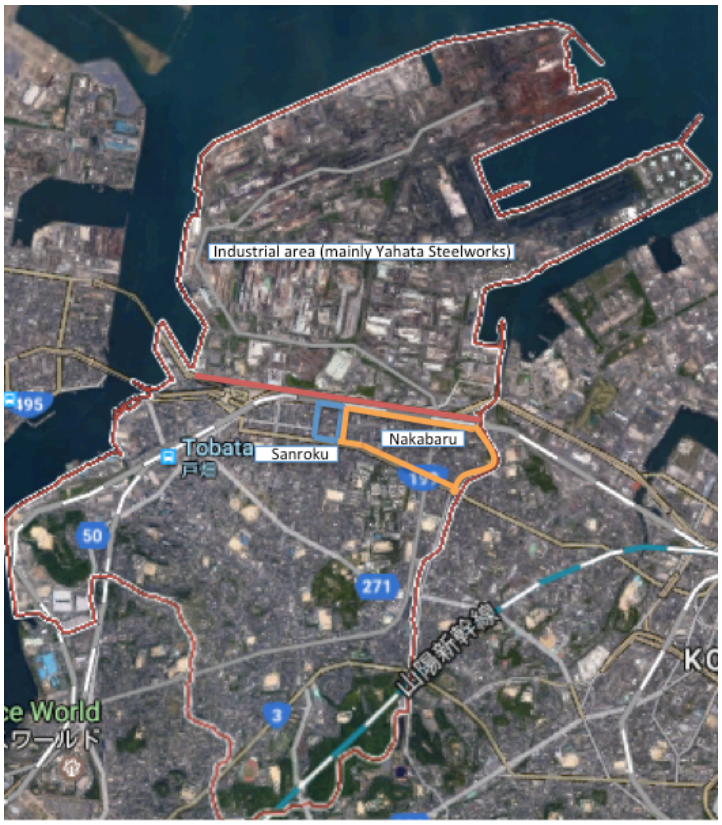

Fig. 3: Map of Tobata (marked within red border). As depicted in the map, nearly half of Tobata (above red line) is covered by the Yahata Steelworks' Tobata plant and its subsidiaries. The Sanroku (blue) and Nakabaru (orange) wards are located in the immediate vicinity to the Steelworks, with train tracks as barriers between the residential area and the steel production site.

Whilst a deep, long-lasting sense of pride to be supporting Japan's largest and most important steel producer was a major reason for the absence of large-scale protest amongst most of Yahata's and Tobata's residents, their loyalty was not solely based upon emotional bonds. For both residents and the local administration, the Steelworks were a hugely important provider of local corporate taxes, employment and social services. Yahata Steelworks provided prestigious jobs with competitive salaries for around 50,000 people on their Yahata and Tobata production sites in the second half of the 1960s, with further employment in their subsidiaries or related businesses. As there were few jobs outside heavy industries – over half of Tobata's working population worked for large industries with over 1,000 employees in 1965 –,[147] citizens in Yahata and Tobata especially depended on the two iron and steel giants Yahata Steelworks and Toyo Ironworks for income. Only a small fraction of Tobata's roughly 100,000 inhabitants, especially those in the Sanroku and Nakabaru wards, did not benefit directly from the neighbouring heavy industries. These direct connections to, and dependence upon, the Steelworks for income not only

[147] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*.

prevented the majority of the male population from protesting against the Steelworks, but also lead to tensions inside the family. Especially at the height of the women's associations' anti-pollution movements, numerous husbands furiously attacked their wives, asking 'to whom do we owe our livelihood? How can you protest against my company?' Many women were torn between their desire for blue skies and a healthy family, and their husbands' demands to stop attacking their own employer.[148]

The aforementioned employment patterns translated into a direct, 'physical' dependence on the Steelworks by the city and its citizens. For the city government, Yahata Steelworks was the major taxpayer, and on top of an enormous direct income for the local administration, the Steelworks also provided considerable political and financial support for the conservative government, alongside employment for the citizens, and social welfare, such as in their hospital, previously the biggest in West Japan. Furthermore, Yahata's government also depended on the Steelworks as water supplier for the city, as most households and offices in Yahata received clean water from the seven-million-hectolitres large Kawachi Reservoir in southern Yahata, originally constructed in the 1920s by the Steelworks as water supply for their production.[149] Quite literally, the city of Yahata was dependent on the Steelworks for survival.

The local administration was very well aware of this dependence on the Steelworks, for which the steel giant often received preferential treatment from the city government, such as in reduced tax rates.[150] Both the local administration and the Steelworks had a significant stake in having high production output, and as their interests were often aligned, a smooth production process without excessively stringent legal restrictions on pollution to deliver cost-efficient goods, the government and the Yahata Steelworks co-operated closely in several matters. This co-operation was largely facilitated by Yahata's mayors, most of whom were former Yahata Steelworks' employees, such as the two mayors governing Yahata between 1945 and the merger with Kitakyūshū in 1963.[151] Eidai Hayashi, who worked in the city government of Tobata in the 1960s, explains these close connections in the following statement: 'The administration of Yahata City became part of a huge, monopolistic company.'[152] The overlap in personnel amongst the city administration, the local parliament, the mayors, and the heavy industries often translated into favourable treatment of the Steelworks and other industrial conglomerates, in whose affairs the

[148] Interview with Interview with Misako Katō, 17 April 2012: '*dare no okagede de meshi wo tabeteirunoka. Kaisha ni hantai suru toha nano kotoka*'; Asahi Newspaper (Nagoya, evening), 'Kirokusakka Eidai Hayashi: kodomotachi wo osou baijin' [Documentary non-fiction author Eidai Hayashi: Pollution attacking our children], 5 July 2011.
[149] Interview with Eidai Hayashi, 12 May 2012.
[150] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*.
[151] Kitakyūshū City*, Kitakyūshūshi kōgaitaisakushi: bunsekihen*
[152] Hayashi, *Kore ga kōgai da*, p. 6

government hardly interfered. At large, it made both the administration and industry realise that they needed each other's support, with the result that the following 'system' emerged: the local administration provided concessions, both financially through lower prices for water supply and sewage as well as lower corporate and property tax rates, and politically, by not demanding effluence treatment and other environmental restrictions until the early 1970s. In return, the heavy industries in Tobata supported the LDP and conservative government, both through donations to the city (for example for the construction of parks or schools) and in the local *kōenkai* (local support group for political parties, especially the LDP).[153] The Steelworks alone donated fifty million yen for the construction of Yahata's civil hall (*kōminkan*), Japan's earliest such building, as well as steel and cement for the construction of schools and official city buildings in the immediate post-war years. As a result, Kokura's first post-war government buildings were predominantly constructed with materials donated by the Steelworks.

On top of donating material goods, Yahata's major employer furthermore contributed to the improvement of leisure facilities by donating the planting of over one thousand cherry trees around their Kawachi Water reservoir for citizens to enjoy nature during the cherry blossom season, as well as a majestic tower for the city's central Kōrodai Park (which translates as Blast Furnace Plateau Park), which soon became the symbol of Yahata. Similarly, in Tobata, as soon as the massive Tobata site of Yahata Steelworks was opened in 1959, Mayor Shiraki of Tobata received a letter stating that Yahata Steelworks 'would like to donate 150 million yen for the city', which not only delighted the mayor, but also Tobata's citizens.[154]

There is little doubt that the aforementioned donations and support from the Steelworks, which gave rise to a system of aligned interests amongst the city government and its major taxpayer, as well as the continuous representation of (former) Steelworks' personnel in the local administration, prevented Kitakyūshū's city government to set higher local environmental standards until around 1970. Only when pollution was so high that non-compliance with the citizens' request for a better environment would have endangered the Liberal Democratic Party's (LDP) ruling position, such as in the 1971 mayoral elections, more stringent local anti-pollution ordinances were passed in Kitakyūshū.

[153] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*; Hayashi, *Yahata no kōgai*; Interview with Hayashi, 12 May 2012.
[154] Ibid, p. 60.

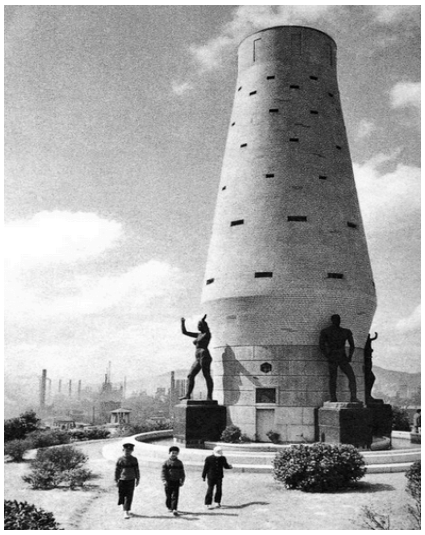

Fig. 4: Majestic tower at the Kōrodai Park, donated by Yahata Steelworks in 1957, from which the city and the Steelworks could be inspected from a high altitude

On top of the previously discussed *economic* and *political barriers,* which were based on many citizens' and the local government's financial dependence on the Steelworks with its over four-hundred subcontractors, the ever-increasing psychological bonds between Kitakyūshū's citizens and the city's largest company posed a further hurdle to the emergence of anti-pollution movements within the local population. As the Steelworks had brought prosperity and development to the Kitakyūshū area, they were often considered synonymous with progress and wealth. The industrial domination of the city, both mentally and spatially, posed a considerable *psychological barrier*. Over the following paragraphs, the outstanding role the Steelworks played in the city will be revealed, with special consideration being given to its position at the geographical centre of both Tobata and Yahata, which translated into strong spatial domination of the cityscape. There follows an investigation into the Steelworks' enormous impact on social life, sense of community, and the collective memory of Yahata and Tobata. It will be explained that the Steelworks' omnipresence in the city reduced many citizens' mental disposition to protest against pollution.

II.II Psychological barrier: spatial domination

Both in Yahata and Tobata, the Steelworks had an outstanding presence, and as much fifty percent of the surface area of Tobata was owned and covered by the Steelworks, who inaugurated Japan's first fully integrated steel production site with dedicated shipping port in 1959. In other words, the majority of Tobata's surface was covered by Yahata Steelworks'

production facilities, including their massive buildings, the eight kilometres-long private *kurogane* railway lines inside their factory area, and their several dozen extremely high smokestacks, which dominated the city skyline of both Tobata and Yahata, as Figures 5 and 6 reveal. The Steelworks, however, not only exerted an enormous impact on the two cities horizontally, as the visible centre of Tobata and Yahata, but also vertically. The sixty-two smokestacks of the Yahata plant, some of them being as high as 205 meters, were shaping the city's silhouette, making the Steelworks the most visible part of the city for both residents and visitors.[155] Citizens could not escape their dominating presence, and figuratively speaking, by looking at the smokestacks, people had to 'look up' to the Steelworks. Due to its immense spatial dimensions, but also due its exposed, central location at the 'heart' of Yahata and Tobata, the Steelworks defined the city.

Fig. 5: The dominating spatial presence of the Yahata Steelworks since the Meiji period. Postcard titled 'Panoramic View on I.G.S.W' from the Taisho era

[155] Kitakyūshū City Environmental Bureau, *Eco tour guidebook*, p. 5.

Fig. 6: Drawing of Yahata Station with Yahata Steelworks in the background (1910)

In the twentieth century, train stations had become the geographical and commercial centre of the two cities. Right behind Yahata's main railway station, visible to everyone arriving by train, spread the massive property of the Yahata Steelworks, as shown in Fig. 6.

As a result of its central location, the Steelworks gave both visitors and locals the impression of being at the heart of Yahata, and, with several busy commercial streets (*shōtengai*) having developed in front of the three main gates, the company was considered the centre of the local economy and people's lives. Leading away from Yahata Steelworks' North Gate was the Edamitsu shopping street. In front of the East Gate developed the Chūōmachi Shōtengai, whilst the Nishi Honmachidōri commercial districts evolved in front of the South Gate (Fig. 7). In other words, Yahata Steelworks were not only the geographical centre of town, but also the heart of commerce. As the whole city evolved due to the Steelworks, most areas developed in close connection with, and dependent upon, the company, which was regarded as the 'nurturer' of smaller shops and provider of amusement for the people. With the giant steel production site at the centre of town, not only commerce but also cultural activities prospered, and the local theatre evolved in the shopping arcades, close to the production facilities. The Steelworks even preceded the construction of the town hall, which was later built in close proximity, impressively depicting the huge influence the Yahata Steelworks had on local business, politics, and social life.

Fig. 7: Yahata's *Nishi Honmachidōri* commercial street, late Taisho/early Showa (around 1915/1920)

Yahata Steelworks not only brought fame and prosperity to the people, but also modernity. The train station, department stores, theatres and amusement districts that developed due to the arrival of the city's most important company are one of clearest signs of a modern lifestyle that started in the 1910s and 1920s, and flourished in the 1950s and 1960s. It was regarded as harbinger of progress, modernity and a prosperous lifestyle, so that the Steelworks were seen as a great contributor to a better life in Kitakyūshū.

The management of the Steelworks had taken great pride in displaying the magnitude of their company architecturally, highlighting the wealth and power Japan's first national steel company possessed. Their vast premises, covering most of northern Yahata and restricting access to the bay, were majestic and seemingly endless. Behind the central entrance was the impressive Main Office, which was lined with expensive indigenous and exotic trees. It was built several years after the establishment of the Steelworks and clearly depicts the management's confidence in the company's great future. The building itself was designed to resemble a baroque palace, being completely symmetric. Whilst taking in the historic, grandiloquent elements of the great French baroque, the building simultaneously demonstrated its modern character as it was built from concrete and steel produced at the company's own site. Combining both the past and the future as well as West and East, it was one of the most impressive buildings at the beginning of the twentieth century, not only in Kyūshū, but also nationwide, for which its was designated national cultural heritage in 2015. Before WWII, the lush green park in front of the headquarters, with its many paths, seemed to invite people for a stroll, and happily walking people completed

the image of luxury and relaxation. Strikingly, instead of resembling heavy industries, the Steelworks' main office symbolised nature and open space.

As discussed, the architecture emphasised the power of the national Steelworks. It can also be argued that the Steelworks hoped to display how nature and social life were dominated and controlled by the city's industrial giant, whilst simultaneously demonstrating the company's strong belief in the future of mankind and progress.

Fig. 8: Yahata Steelworks' Main office, built in 1922. Pre-war coloured photography

After the war, the park in front of the main office was replaced by car parking to accommodate modernity in form of the rising motorisation of society. However, the car park was constructed slightly to the side of the building to keep space for an impeccable small garden and a huge roundabout with greenery inside, which kept the feeling of luxury whilst demonstrating modernity and rationality in form of a roundabout (Figures 9 and 10).

Fig. 9: Roundabout and palm trees in front of **Yahata Steelworks' Main Office.**
Fig. 10: Parking in front of **Yahata Steelworks' Main Office**, showing a high degree of motorisation.

Despite releasing major emissions, the management of the Steelworks put great emphasis on creating a clean, 'green' image through the park in front of the Main Office, but also outside the city centre, where the Steelworks had constructed what later became one of the most popular sightseeing and recreation spots, the Kawachi Reservoir, as shown in the postcard below (Fig. 11). Despite being the result of a massive dam construction by the Steelworks, the 189 metres long and forty-four metres deep man-made lake lined with cherry trees, which invited many birds to build their nests in the branches, became Yahata's major cherry-blossom viewing site.

As highlighted, the impressive architectural layout of both the impressively modern Main Office and the idyllic Kawachi Reservoir with its impressive dam conveyed a majestic yet progressive, clean image of the company. The spatial domination of Yahata and Tobata through the Steelworks' gigantic production sites left a deep impression on the local population and shaped the collective memory of the city, inhibiting citizens' revolt against the Steelworks' pollution.

Fig. 11: The Kawachi Water Reservoir, Yahata's most popular recreational spot.
Undated postcard (around early 1950s)

Apart from awe, the Steelworks' spatial planning also created a mysterious atmosphere for those outside the huge industrial area, whilst inspiring a sense of belonging amongst those working inside. According to interviews, the company premises were shielded from prying eyes, and intruders were kept at arms' length through barriers in the form of both ground and plateaued

train lines.[156] Figures 12 and 13 show the removed position of the Steelworks, secluded behind the railway tracks, whilst at the same time being geographically only few meters away from residential areas.

Fig. 12, left: The *Higashimon* (East Gate) entrance to the Yahata Steelworks. Only workers were allowed to enter the premises, and the train lines around the company area posed an effective way of defending the area from intruders
Fig. 13, right: Restricted view on the Steelworks. Undated postcard

Only employees could enter the grounds through one of the three entrances, also using the Steel Work's own underground path to the premises. For the rest of Yahata's and Tobata's population, watching the smoke rise was the sole way of being able to guess what was going on inside. The Steelworks were a mysterious conglomerate, which, despite being the centre and economic 'heart' of Yahata, few people knew much about. The fearful respect for the company was noticeable amongst numerous interviewees, who were in their childhood when Yahata and its Steelworks had reached the height of their prosperity and influence in the 1960s. One woman recollects her mother's words, warning her not to approach the Steelworks too closely: 'I don't know why, but my mother always told me to be careful, and she never allowed me to ride my bike in the vicinity of the Steelworks. I never asked why. I guess even my mother did not know the exact reason for her rule. But I always tried to keep away from the Steelworks. For all of us kids, the company had a dark image, and whilst no one knew much about it, we all were a bit scared of it. Frightened, but also intrigued to know what this huge company, that was so big we could not walk around, was actually doing.'[157] Another lady, who was at Junior High School, remarked that whilst her mother was actually working for Yahata Steelworks, she never talked

[156] Interview with Rina Tanaka, 28 May 2012.
[157] Anonymous interview, 9 May 2012. Similar views were also expressed by other interviewees.

much about her actual job at home. 'We kids all knew about the company, but no one knew what exactly 'the company' was.'[158]

From a point of spatial domination, the magnitude of the company complex with its high-rise walls around it, the black smokestacks towering in the sky, and the impressive architecture of the headquarters, were clear signs of the dominant role Yahata Steelworks played in the life and minds of the inhabitants of Yahata and neighbouring Tobata. Its sheer size, which conveyed the image that the company was 'too big to fail' (or to fight against), as well as the 'green' imagine its headquarters conveyed, certainly lowered the propensity of Yahata's and Tobata's citizens to start a movement against industrial pollution, which mainly came from the Steelworks.

II.III Psychological barriers: Collective identity in the 'imagined community'

Yahata Steelworks greatly shaped the outlook of Yahata, not only through spatial domination and as employer of large parts of the population, but also by providing services for the local community. When the Yahata Steelworks were constructed in 1901, the village had only very limited medical facilities. To improve the health conditions of its workers and their families, Yahata Steelworks started providing medical services, and built a hospital on the company premises. In 1913, it also established its own training centre for nurses to strengthen its medical services. With a surge in the number of employees, the Yahata Steelworks Affiliated Hospital greatly improved and grew into the biggest and one of the most modern hospitals in western Japan by the early 1920s.[159] Figure 14 reveals its impressive size and modern look.

Fig. 14 and 15: Yahata Steelworks Hospital, one of the biggest and most modern facilities in West Japan.

[158] Interview with Kyoko Nakamura, 22 February 2015.
[159] Kitakyūshū Innovation Gallery, *Yahata Higashida monogatari*. *Shiryōhen* [Stories about Higashida: materials] (Kitakyūshū, 2007).

Apart from taking care of the physical health condition of the workers and their families, the Steelworks also helped employees keep a healthy and nutritious diet. As prices for staples rose drastically due to the strong influx of workforce in the early years (1900-1910), the company decided to provide cheaper products to their members, and therefore established an internal cooperative shop in 1908. Here, employees and their families could buy food and clothing at reduced prices. They also opened convenience store-like kiosks, where the workers could purchase cheap lunch boxes (*obento*).[160] Some interviewees who did not have family members working for the Steelworks mentioned that when they were young, they were jealous of friends whose brother or father worked for the Steelworks, as they seemed to have more food and even 'luxury' goods like sweets, which their mothers could buy at reduced co-op member prices. This certainly created some internal cohesion, loyalty, and a sense of belonging amongst the employees, setting them apart from 'non-Steelworkers'. After the Second World War, Yahata Steelworks' co-operative shops, which existed in twenty-one locations in proximity to the new company housing areas, developed into Japan's first supermarkets.[161] Moving to the Yahata Holdings Building in front of the company premises, the original Steelworks' co-operative re-opened under the name Spina in 1952, and started West Japan's first self-service supermarkets in 1956.[162] The Western-sounding name Spina not only refers to ideas of modernity, but also highlights its relation to the Steelworks: whilst not obvious at first sight, the name came from the first letters of the word *spina*ch, which contains a lot of iron (*tetsu*), thus referring to Yahata's Iron and Steel Work. As one of the earliest (if not *the* earliest) self-service supermarket in Japan, it was a sign of modernity and a source of pride not only for the company, but also for its workers and their wives (Fig. 16). Being able to pick from the abundant goods of modernity, which had reached Kitakyūshū by the late 1950s, in a self-service supermarket, at a reduced price, was a prerogative not all women could enjoy.

[160] New Japan Steel, *En totomoni.*
[161] Yahata Steelworks Welfare Division, *Gojūnenshi* [Fifty-years history] (Kokura, 1958).
[162] Kitakyūshū Innovation Gallery, *Higashida no monogatari*.

Fig. 16: Japan's first self-service supermarket, *Spina*, operated by the Yahata Steelworks for employees as company-intern co-operative.

On top of providing goods at reduced prices, the Steelworks' co-op and later the Spina also sold exclusive goods such as the Kurogane Yōkan (bean jelly) and Kurogane Katapan (sweet, hard bread, see Fig. 17), which was initially developed in an effort to keep the workers healthy and strong by providing a high calorie intake. Due to its high popularity, and because Yahata did not posses any famous local specialties, (*meibutsu,* to be given as souvenirs or to be presented to visitors), Yahata City decided to market and produce the Kurogane Katapan and Kurogane Yōkan as its official local produce. As *Kurogane* refers to the workers' uniform, the official local specialty, representing Yahata all over Japan, highlighted the city's affiliation with the Steelworks and had high psychological importance as it demonstrated the citizen's pride in and identification with the Yahata Steelworks.

KATAPAN

たいへん堅い商品ですので、歯の弱い方は、ご注意ください。なお、コーヒー、紅茶、牛乳等に浸すと、やわらかく召し上がることができます。

名　称	菓子（焼菓子）
原材料名	小麦粉、砂糖、加糖れん乳、膨張剤
内 容 量	5枚入
賞味期限	袋底面に記載
保存方法	直射日光を避け常温で保存して下さい。
製 造 者	株式会社スピナＹＫ 北九州市八幡東区平野2丁目11-1 電話 093-681-7350

Fig. 17: The Kurogane Katapan, high-calorific hard bread designed as snack for the Steelworkers, which later became the local specialty of Yahata City produced by *Spina*, and is still sold in shops around Japan

Apart from providing medical services and daily goods at reduced prices, the Steelworks also contributed to the health of its workers by establishing a sports centre, which provided room for personal recreation. The Art-deco style of the Ōtani Hall (opened in 1927) and the provision

of tennis courts and a billiard room conveyed a bourgeois, modern, westernised image (Fig. 18). It highlighted that by working for the Steelworks, even simple workers could enjoy a lifestyle similar to that of middle- or even upper-class families, which increased the Steelworks' attractiveness and also the workers' satisfaction with their employer.

Fig. 18: Majestic entrance to the Ōtani Kaikan, built in 1927 using red bricks produced in the Steelworks, providing outstanding recreational facilities for Yahata Steelworks' employees.

As pictures of the reading room in the Ōtani Hall show, the hall also attracted many women, probably the wives of employees, who came together to socialise or to read the newspapers and magazines the company provided. By providing room for recreation for wives, the gratitude and loyalty to the Steelworks was extended to the whole family, which increased the psychological hurdle for people to protest against pollution.

It is probably correct to say that Yahata Steelworks took great care of their employees, whether it was for pragmatic reasons to keep them healthy and fit workers, or if it was inspired by altruism. One interviewee mentioned that when her father, a Steelworks employee, died at work at young age, the company supported the family financially, and also employed the worker's wife so that she could provide a household income. 'Yahata Steelworks always tried to convey the image that the whole company was one big family, and that everyone was being taken care of by the management. Whilst wondering whether our father, who died very young and had not shown any symptoms of disease, might have died from toxic effluents at work, our whole family was at the same time relieved that our mother was taken over by the Steelworks instantly after his death, despite not having any suitable background and qualifications.'[163]

[163] Anonymous interview, 9 May 2012.

The generous welfare provisions for workers and dependents created a sense of community amongst the employees and their families, and instilled feelings of gratitude whilst simultaneously increasing their loyalty. It reminded the workers and their families of their privileged life, thus strengthening the emotional bonds with the employer. These deep connections also included elements of 'psychological domination', as much of the employees' personal wellbeing and happiness depended on the Steelworks and their welfare provision.

However, it was not only the workers and their families who displayed strong respect and emotional attachment to the company. For large parts of the general population, Yahata Steelworks had highly positive connotations, and a collective identity as 'industry castle town' was instilled from early age, as Kiyoko Murata recalls. 'As schoolchildren, we had to sing Yahata's city anthem every day. Whilst we did not clearly understand the difficult and poetic lyrics, somehow the song was imprinted in our mind, and we children tried to make sense of it. What we all understood is that everything in Yahata, even our own lives, depended on the Steelworks.'[164] The official city anthem of Yahata glorified the 'seven-coloured sky'. 'Endless smoke overflowing the sky / Seen from the sky, of spectacular sight is our Ironwork', so a line from the official city anthem of Yahata goes. The hymn not only glorified pollution and progress, closing verse one and verse two with the words 'the development of the city is [the citizens'] mission', and proposing, in the final line, that the 'prosperity of the city is [the citizens'] joy'. 'No matter if adults or children, all inhabitants of Yahata as well as the government loved Yahata Steelworks with a pure heart', wrote Kiyoko Murata in her essay on her childhood.[165] The depiction of smoke rising from the Steelworks as a symbol of growth clearly underlines the positive connotation of pollution the local government tried to instil in the population. However, it was not only the adoration of modernity that stands out, but also the proclaimed unity between the city and its major company, praising 'our own Steelworks' (*waga seitestujo*) and describing Yahata as city of 'glazing flames' and 'endless smoke'. Murata also expresses the idea that the city of Yahata was depicted as equivalent with Yahata Steelworks: 'The song of the city was a song about the Steelworks. As children, we strongly believed in this [unity of the city and the Steelworks] with our whole heart. […] The company was the treasure of the city, and every citizen was responsible for advancing the company. […] Loving the city equalled loving the company', she recollects.[166] Years after her elementary school experience, Murata met a lady of

[164] Kitakyūshū History Association, *Kitakyūshū omoide shashinkan: kitakyūshū shisei sanjūshūnen kinenshi* [Photo studio of Kitakyūshū's memories: commemorative magazine at the occasion of the 30th anniversary of Kitakyūshū City] (Kitakyūshū, 1994), p. 86f.
[165] Kitakyūshū History Association, *Kitakyūshū omoide shashinkan*, p. 86f.
[166] Ibid. 86f.

her own age, and upon realising that they both where from Yahata, she asked 'do you remember the city anthem of Yahata?' The answer was 'would you ever be able to forget?'[167]

Similar to the anthem of Yahata, also Tobata City's hymn is a prime example of praise for industry, depicting Tobata as city where 'black fumes overflow the sky' and 'engines shake the earth'. Also, in Tobata's case, there is direct reference to the Steelworks, highlighting the 'iron arm' of the city that is beating fast, bringing joy to the city and its residents.

Not only the city anthems, but also other traditional, cultural activities like *o-bon* dances and local festivals played an immense role in creating a strong bond between the citizens and the company, and promoted a collective identity as Yahata Steel Work's 'industry castle town'. In summer, every family practiced *bon* dances together for a whole week. 'There is a reason why no family, especially those with children, failed to participate [in the dance]. Every family that took part received financial rewards, which, in my memory, were bigger than our *otoshidama* (money presents for children for New Year's celebration).'[168] For many families, and especially for their children, the Yahata Steelworks signified a strong company that looked after local residents by distributing presents. Strengthening social ties amongst the citizens and creating local cohesion through communal *bon* dances clearly contributed to the creation of an 'imagined community', and the festival preparations signified an important part of the collective memory. Yahata Steelworks furthermore sponsored small festivals organised by the neighbourhood associations, thereby fostering their ties with the population, and improving its standing within the local community.[169] That the company was increasingly regarded as synonymous with the city can be determined from the fact that the company festival (*kigyōsai*) in November was the main city festival in Yahata, attracting hundreds of thousands of people from near and far.

The company festival impressively highlights a unique role and standing in the community, as well as the Steelworks' 'magnetic' power. Unmatched anywhere else in Japan, the city of Yahata basically stood still for three entire days, when the Steelworks interrupted production to celebrate the company's inauguration on 18 November 1901. Unlike any other company festival in Japan, elementary schools and middle schools were closed for a whole day, on 18 November, between 1950 and 1971 so that all young children could attend the company festival that offered a new level of entertainment, including a big circus with exotic animals and diverse shows. The picture below (Fig. XVIII), capturing huge crowds in front of the circus, reveals what a major attraction the circus must have been in an age when entertainment was scarce. However, also the live demonstrations on how to make steel were the centre of attention,

[167] Ibid.
[168] Ibid.
[169] Interview with Kazuhiro Kumai, 10 May 2012.

and every year between 50,000 to 70,000 visitors lined up, often waiting for hours just to get a glimpse of the production process in the Steelworks.[170] The several hundred thousands (sometimes even over a million) visitors that filled the grounds of the Ōtani Baseball field (Fig. 21), where the company festival was held every year, often came from afar, as the spectacle the Yahata Steelworks were offering free of charge was unmatched in any other part of Japan. Not even adverse social and economic conditions could interfere with the company festival: after a short intermezzo of stand-still during and immediately after WWII, celebrations resumed with a large parade in 1948, a time when the Japanese people were still suffering from extreme poverty. Due to the great efforts the Steelworks put into keeping the tradition of their festival alive, it became Japan's longest-running celebratory event held in memory of a (later private) corporation, taking place over seventy times between 1901 and 1985.

Fig. 19: Impressions of Yahata Steelworks' annual company festival in November: Masses of visitors in front of the main stage, which was hosting a circus show

[170] New Japan Steel, *Seiki wo koete. Yahataseitestu no Hyakunen* [Crossing centuries: 100 years of Yahata Iron and Steel] (Kitakyūshū, 2001).


Fig. 20: Left: Numerous stalls (several hundreds between the Chūōmachi and the Yahata Steelworks' grounds are being mentioned in the literature) with food and entertainment for the visitors' enjoyment
Fig. 21: Right: Ōtani baseball ground, with the Ōtani sports centre in the background during the company festival

Whilst the company festival was an outstanding chance for the Steelworks to display their great prowess, its modern character and unmatched scale, it was certainly not their only channel to play a leading role in the local community. Another more permanent ways of attracting attention and gaining recognition was through the numerous sports teams of Yahata Steelworks. Swimmers practicing in the state-of-the-art Olympic Ōtani Pool (Fig. 22) competed over fifty times at Olympic games, and brought great global fame to Yahata. The Olympic medals, which members of the Yahata Steelworks' swimming team won, gathered attention not only amongst Kitakyūshū's citizens, but also nationwide. The facilities of the Ōtani Pool, the coaches and sports management, as well as the reputation of the Steelworks and its athletic teams were impressive enough to attract great sportsmen and sportswomen to the Steelworks' teams from all over Japan. After Satoko Tanaka won the bronze medal at the Rome Olympics (1960) whilst still being in high school in her hometown in southern Kyūshū (Nagasaki prefecture), Yahata Steelworks offered her employment and membership in their swimming team. Accepting the offer which would enable her to continue her professional career, aspiring towards a gold medal at the Tōkyō Olympics, Tanaka entered the company the same year and continued to set new world records every year until 1963. As the first female Japanese Olympic medallist in swimming since Berlin 1936, and as one of Japan's most well-known and most-loved sportswomen, both Tanaka and the Steelworks received great recognition from all around Japan, and a large number of local

residents expressed deep gratitude to the Steelworks for attracting Tanaka to Yahata, thereby raising the city's fame as sports hub.[171]

Next to swimmers, Yahata Steelworks' marathon runners greatly contributed to the great pride local citizens harboured vis-à-vis the Steelworks. Especially when Kitakyūshū-born and raised Yahata Steelworks' employee Kenji Kimihara participated in three consecutive Olympic games in 1964, 1968 and 1972, securing the silver medal in Mexico (1968), the city was alive with excitement and pride. The citizens' identification with the Steelworks reached its climax exactly at a point when air pollution in Yahata had received national 'fame' for being the highest in Japan. However, the Steelworks' contribution to the national fame and collective memory of the city, achieved through athletic victories, often led citizens to excuse the high pollution levels.

It was not only Olympic medals, but also victories in national competitions or in league sports that increased the pride of Yahata's citizens. When the Yahata Steelworks' baseball team won the twenty-fifth intercity contest in 1954, thousands of locals applauded the team in a big parade, praising the Steelworks. Even in less important matches, the rugby, football, basketball and baseball teams attracted around 5,000 spectators in the Ōtani (Baseball) Ground and the Ōtani Sports Hall (*taiikukan*) (Fig. 23).

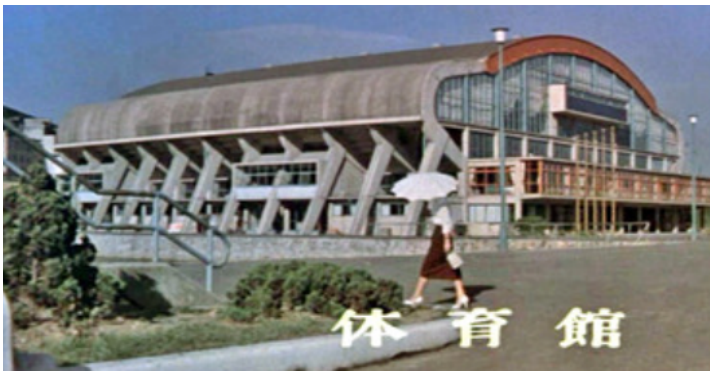

Fig. 22, left: The Ōtani Pool, an Olympic facility in which some of Japan's most famous swimmers such as Satoko Tanaka trained and coached
Fig. 23, right: The modern Ōtani Sports Hall, which could not only host thousands of visitors during sports events, but which also had outstanding technical facilities and great acoustics for use in concerts

The sports facilities of the Steelworks were exceptional not only because of their sheer size, accommodating up to 5,000 spectators, but also because of the high quality of their equipment and their modern architecture. The Ōtani Sports Hall, in particular, was of such a high quality that when in 1956 the Wien Philharmonic Orchestra visited Japan for the first time,

[171] Olympic Committee, 'Japanese Olympian Spirits: Takeuji Satoko', accessed 27 November 2013, at http://www.joc.or.jp/column/athleteinterview/legend/03takeuji/html/index.html.

Yahata Steelworks' Ōtani Sport Hall was selected as one of only a dozen venues for their concerts. Its size and sound quality were more impressive than the famous Hibiya Kōkaido and the Takarazuka Theatre, and hosting the world-famous orchestra under Herbert Karayan in 1957 as only one of two sites in Kyūshū was great pride for the city, its residents, and the Steelworks.

The year after, the national fame of the Steelworks exploded when famous director Keisuke Kinoshita introduced Yahata Steelworks and its outstanding production facilities, alongside its impressive, generous social welfare and recreational provisions, to the nation.

Fig. 24: Opening scene of *Kono Ten no Niji* (1958) with the 'seven-coloured sky' in the background

Fig. 25: Yahata covered in smoke from the massive Steelworks

Fig. 26: Factory premises of the Steelworks, with 'red smoke' (SOx) as well as highly pronounced soot particles

Whilst his film *Rainbow of this Sky,* starring an 'all-star cast' supporting Kenji Takahashi and Yoshiko Kuga in the lead roles, appears to be a drama about the love of a young Steelworks employee, it was predominantly a glorification of the Yahata Steelworks.[172] Especially at the beginning of the drama, the film could be mistaken for a PR video of the Steelworks. Over several minutes, Kinoshita minutely describes the company's outstanding facilities and introduces it to a national audience. Starting with a panoramic view of Yahata City, which was dominated by seamlessly endless smokestacks from the Steelworks (Fig. 24), the narrator introduces 'the biggest iron and steel work in Asia'. The proud announcement of Yahata Steelworks' impressive scale is made through the pronouncement of the following figures: 'Capital 2,300,000,000,000 yen; Production surface area: 1,726,000 *tsubu* [5,705,780 square meters]; Employees: 37,500'.[173] The narration continues with further figures to introduce the audience to the national hub of national steelmaking, showing the Steelworks' blast furnaces, some of the tallest and most powerful in the world, whilst highlighting that '136 locomotives, 2,884 carriages and 390 kilometres of railway tracks' guaranteed a smooth and efficient production process. The images (see Fig. 25 and 26) display the grandeur of the Steelworks in full sight.

[172] Shochiku, *Kinoshita Keisuke no zensakuhin: Kono ten no niji* [Complete works by Keisuke Kinoshita], http://www.shochiku.co.jp/kinoshita/content/filmdetail/31.html
[173] Kinoshita, '*Kono Ten no Niji'*.

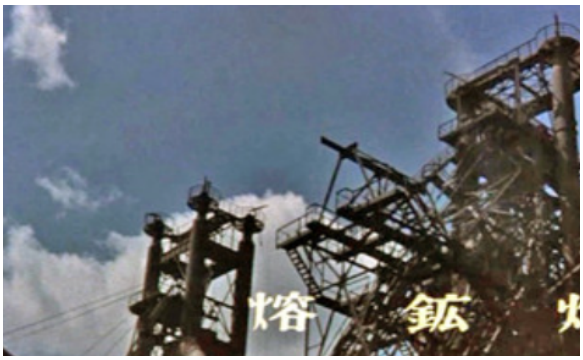


Fig. 27 and Fig. 28: Impressions of the steel production process

Images of the open-hearth production process follow, triggering a series of cuts from the highly technical steel-making process. This includes converter plants, slabbing plants, plate mills, rail factories, wire-rod plants, strip factories (heat-rolled and cold-rolled), plating tin plants, and coke furnaces. The list feels endless, and once the explanations on the different steps in the production process of steel are completed, the narration moves on, depicting the Steelworks' management and the company buildings. Having introduced the historic Main Office as well as their management, President Koshima and Vice-President Kakuno, the camera moves further away from the main company grounds, finishing at the Momozono company-owned apartments, which were developed as early as in 1948 in an attempt to provide modern housing facilities to the workers (Fig. 29). Both the Momozono family apartments and the Anō 'newly-wed apartments', as they were colloquial referred to, were state-of-the-art buildings, some of them even with elevators constructed with the highest standard of materials produced directly in the Steelworks, as Fig. 30 reveals. The most glamorous building, however, is the Kawachi dormitory for single male workers, in front of which a luxury car is parked in *Rainbow of this Sky*, as depicted in Fig. 31. As one of eleven dormitories for single workers, it provided rooms for over 700 employees, according to the narrator.

Fig. 29: Momozono company housing, state-of-the-art family-apartments for Yahata Steelworks' employees

Fig. 30: Five-storied concrete buildings (Anō company housing), constructed with steel from the Steelworks

Fig. 31: The Kawachi dormitory for male, single workers

The narration continues with long and detailed descriptions about the privileges provided to workers at Yahata Steelworks, such as access to the Employees' Club or cultural events. Particular attention is paid to the Yahata Steelworks' *Talent Festivals*, where different company-intern clubs such as the philharmonic orchestra or the choir performed, attracting thousands of spectators to the Ōtani Sports Hall. On top of cultural and recreational activities, the narrator also praises the numerous welfare provisions of the Yahata Steelworks' Hospital, or even the opportunity of shopping in one of the eleven company-run membership-only supermarkets that provided provisions at subsidised prices. Spina, introduced as Japan's first and most modern self-service supermarket, is shown as an outstanding example of the progressive nature of the Yahata Steelworks. The company is portrayed as revolutionary in the extent of the deep obligations it holds towards employees, and the converse gratitude this instilled amongst the workers.

To show both the magnitude and magnanimity of the Steelworks, director Kinoshita also provides footage from the Kawachi Reservoir in southern Yahata, the 'orient's first and foremost dam', which was built over eight years (1919-1927) to provide water for Yahata Steelworks' mills (Fig. 32). With its impressive height of forty-four metres (length: 189 metres), it provided seven million cubic litres of water not only for production, but also for general household use in Yahata. Reaching its climax with the description of the company festival, described as one of the highlights in the whole region, the narrator ends his extensive descriptions on the unique magnificence, as well as the local, national and international importance, of the Steelworks.

Fig. 32: The Kawachi Water reservoir in southern Yahata, where the Steelworks generated their water supply for production

Rainbow of this Sky, whilst neither being commissioned nor funded by the Yahata Steelworks, is a glorification of the Yahata Steelworks par excellence, revealing the huge national significance of Japan's largest iron and steel company. Minutely describing the glamour of industry, from which the employees benefited in form of recreational opportunities, social welfare, competitive salaries and outstanding pensions schemes (under which many lifetime workers received a house upon retirement), the film is an outstanding account of the benefits a life associated with Yahata Steelworks was said to entail. The film provides a demonstration of the unmatched power of the private enterprise, which was regarded as a major player for achieving a bright future for Japan, thereby impressively underlining not only the deep connections between Yahata Steelworks' employees and the company, but also between Yahata's citizens and the city's major business.

Similar to the city anthems of Yahata and Tobata, which were analysed previously, *Rainbow of this Sky* impressively bears witness to both the national (and later also international) fame of the Steelworks' and highlights the glorification of pollution and the romantic connotation it entailed, implying that pollution would lead to a bright future for mankind. In both the city anthems and the cinematic drama by Kinoshita, a light was shone upon the outstanding role the

Yahata Steelworks played not only for the local and national economy, but also for the self-perception and the esteem of the people of Yahata. It highlighted that the city and its citizens increasingly defined themselves in relation to the Steelworks and other major industries, developing a strong sense of pride at being a top international steel-producing location, and a motor for Japan's economic growth and development. Yahata and Tobata were, to a large extent, prime examples of the *kigyō jōkamachi*, the industry castle town where the local major industry shaped the citizens' life, providing employment and services in return for loyalty and co-operation.

II.IV Summary

Whilst industry in general had a strong presence in Yahata and Tobata, it was one single company, the Yahata Steelworks, which left a huge mark on the city. As revealed in this chapter, the Steelworks dominated the cities of Yahata and Tobata on several levels: economically, politically, spatially, and psychologically. The analysis started with an investigation of the economic and political dependence of Yahata and Tobata on the Steelworks. It was highlighted that the prosperity and political importance of both cities was highly dependent upon the Steelworks, which had triggered increasing industrialisation in the early twentieth century. With only a small primary and tertiary sector in the 1950s and 1960s, most citizens were employed either directly by the Steelworks, which boasted around 50,000 employees during its peak in the 1960s, or worked in subsidiaries or related industries. Receiving their incomes from the Steelworks, many families were dependent on heavy industries for economic survival, which greatly reduced their disposition to demand higher environmental standards and thus limited civic protest against pollution.

However, not only the citizens, but also the city government was economically dependent on the Steelworks, who paid the largest amount of local corporate taxes and who supplied the city with fresh water from their company-owned water reservoir. Further political dependence was given from the overlap in personnel between the Steelworks, whose former executives served as mayors of Yahata until 1963, and who were repeatedly elected into the city parliament. With the Steelworks as a major supporter of the Liberal Democratic Party, the city government felt inclined not to demand too many concessions from the steelwork in exchange for their political support.

Analysing the spatial dominance of the Steel Work and its subsidiaries, whose combined production facilities covered nearly seventy percent of the surface area of Tobata (not including

land owned for recreational facilities and company-owned housing), and whose eighty-six high-rising smokestacks had become the symbol of Yahata, it was shown that the Steelworks exerted an immense visual presence. For both residents and visitors, Yahata Steelworks were often synonymous with the city as they were the most visible part of Yahata, and the smokestacks dominating the skyline shaped the visual impression of the city. Just like with skyscrapers in Manhattan, Yahata Steel's smokestacks and its long industrial skyline in front of the bay symbolised Yahata in the 1950s, 1960s and 1970s. It was furthermore highlighted how the architectural planning on part of the Steel Work's management not only inspired awe and respect for the company that had constructed some of West Japan's most impressive art-décor buildings, conveying a massive, majestic image, but also instilled an element of mysticism or even fear. As analysed, the spatial planning of Yahata City clearly demonstrated the unique importance of the Steelworks, from whose visual presence it was hard to escape, with most lively streets leading to the Steelworks, and with the company's smokestacks looming in the back of the city.

As this chapter highlighted in the discussion of the citizens' emotional dependence on the Steelworks, the increased national recognition of the city's leading company, and concomitantly also of Yahata, during the high economic growth years (1955-1970) gave rise to a new sense of belonging and a feeling of importance within the population. The success of Yahata Steelworks, not only in the form of record production and profit levels but also in sports, arts and culture, created a new pride amongst the residents and fostered the idea of a community – an 'imagined community', as Benedict Anderson (1986) would point out, where people in the in-group, despite not knowing each other, feel emotionally connected through shared bonds with the Steelworks.[174] The manifold victories of Yahata Steelworks' sportsmen and sportswomen in national and international competitions, such as the Silver medal in Mexico by Kitakyūshū-born and raised marathon runner Kenji Kimihara, the new global records employee and female swimming legend Satoko Tanaka set every year between 1959 and 1963, and the national victories and Olympic participation of the Steelworks' basketball and soccer teams, clearly contributed to stronger emotional bonds between the company and the local community, whilst simultaneously strengthening the identification of the local residents with their heavy industries. Both the sports victories and the yearly parades and entertainment during the company festival increased the sense of community, and have remained a dominant part of the collective memory of Yahata's (and, albeit to a lesser extent, also Tobata's) citizens. The collective identity as 'industry castle town', which the Steelworks strengthened through festivals, but also through donations to local

[174] B.R. Andersen, *Imagined communities: reflections on the origin and spread of nationalism* (London, 1986).

community events, remained strong until at least the 1970s, and posed a major reason for the absence of large-scale protest from amongst the citizens.[175]

Whilst the large parts of Yahata defined their own identity in relation to the Steelworks, such identification was even stronger amongst the company's employees. Offering family housing, healthcare, social welfare, and leisure-time activities such as free or highly-subsidised art and cultural entertainment on top of employees' club membership and access to sports and cultural facilities, the majority of workers felt a deep sense of satisfaction, respect and loyalty towards their employer, which fostered a sense of cohesion amongst fellow workers. This, on top of rational reasoning, limited anti-pollution action: the privileges, prestige and above-average salaries were treasures which few Steelworkers were willing to jeopardise by challenging their employer regarding environmental standards. In other words, it was both rational calculations and emotional bonds developed in the exclusive internal community of the Steelworks that demotivated many workers from protesting against industrial pollution.

As this chapter has revealed, the emotional attachment and the community feeling amongst the workers, which subsequently extended to the majority of local residents, played a major factor for the absence of protest. It was not simply the spatial domination and the economic and political dependence of the workers and the local government on the Steelworks for salaries, tax revenues and political support in elections that inhibited protest. Rather, it was the unity, which the Steelworks managed to foster in Yahata and Tobata, the collective memory, as well as the pride amongst citizens that inhibited protest. The only social group that managed to escape the psychologically domination of the Steelworks and protested against industrial pollution were local housewives in Tobata, who, as they were not under the direct influence of the Steelworks, found themselves in a position where they could act.

How these women acquired the democratic consciousness and civic skills to protest will be analysed in the next chapter. Focusing on the rise of civil society in Tobata in the reconstruction years (1945-1952), it will be revealed that indigenous, Japanese ideas of democracy existed amongst Tobata's population, which hoped to shape the political outlook of their community.

[175] However, vice-versa, this proclaimed unity between the citizens, the Steelworks and the city government eventually facilitated the smooth implementation of high pollution standards in 1972, amongst all major businesses in Yahata and Tobata.

CHAPTER III: LIFE IN JAPAN'S 'DEPARTMENT STORE FOR POLLUTION': Citizens' daily fights against, and life with, Tobata's pollution

III.I Tobata's pollution prior to 1960

Before Japan embarked on its journey to modernise and 'catch up' with the West, ninety percent of the archipelago was covered with forests, and a large proportion of the remaining surface area was devoted to rice-crop farming.[176] On top of providing a habitat for flora and fauna, Japan's bucolic countryside and ample oxygen supply guaranteed a healthy living environment for humans and animals. However, as a result of Japan's massive efforts to industrialise, protecting nature became secondary in importance. Heavily promoting highly-polluting industries such as electric power generation, coal mining, steelmaking and shipbuilding to increase exports, and thus national wealth, the ambitious Japanese government 'invited' environmental pollution in the intermediate post-war years (1945-1954).[177] Spurred on by the government's strategy to concentrate on industrial development in key industries (rather than increasing housing, transportation and social services), Japan became the world's second largest producer of steel by 1958 (and outright largest steel-making country by 1980), with the Yahata Steelworks being Asia's largest steelwork and most productive mill.[178] At the peak of production in 1967, Yahata Steelworks produced 11,600,000 metric tons of iron and steel, over seventy times more than the 1945 figure of 150,000 tons.[179] However, this expansion of industrial output resulted in severe aerial, water and noise pollution, and Yahata Steelworks quickly developed into one of the world's biggest emitters of soot, smoke and toxic effluents in the 1950s and 1960s.

Kitakyūshū has long been known as industrial city. In the late nineteenth century, industrialists and politicians from the region, with Keiichiro Yasukawa at the forefront, worked hard to win the bid for the gigantic national government-managed Steelworks (*kanei seitetsujo*) that were planned to support Japan's industrialisation and militarisation.[180] After continuous political lobbying, and against the initial will of the local population, the central government decided to construct the Steelworks in the small hamlet of Yahata, where it quickly developed

[176] R. Forrest, M. Schreurs and R. Penrod, 'A comparative history of U.S. and Japanese environmental movements', in P. Karan and U. Suganuma, *Local environmental movements: a comparative study of the United States and Japan local environmental movements* (Lexington, 2008), pp. 13-38.
[177] Hein, 'Defining growth: debates on economic strategies'.
[178] Duus, *Modern Japan.*
[179] B.H. Lim, R.A. Pense and K.P. Wang, 'The mineral industry of Japan, 1967', in United States Bureau of Mines (ed.), *Minerals yearbook area reports: international 1967 year volume IV* (Washington, 1969), pp. 411-36.
[180] N. Shimizu, 'The former Matsumoto and Yasukawa residences: their architectural value and the regional zaibatsu representation of Japan', *Kitakyūshū Kokusaidaigaku Kyōyō Kenkyū* [Kitakyūshū International Education General Research Education], 16:3 (March 2010), pp. 101-155.

into Asia's biggest iron and steel production facility, accounting for nearly ninety percent of Japan's steel output in 1912.[181] With the arrival of the Yahata Steelworks in 1896, the fishing village started to prosper and experienced exponential growth in population, tax revenues, and prestige.[182] Concomitantly, the population skyrocketed from less than 1,800 people in 1897 to nearly 280,000 inhabitants in 1943.[183] Also the adjacent area of Tobata benefitted from Yahata's magnetic effect on human capital and investment. Within twenty-five years, the population rose from 3,000 in 1899 to nearly 100,000 inhabitants, having attracted major iron, steel, porcelain, brick and cement producers, as well as other heavy industry companies.[184] By the mid-1910s, both Yahata and Tobata had developed into hubs of industrial production that supported Japan's rapid industrialisation. However, with increasing prosperity, the negative effects of industrialisation became increasingly apparent. As most companies used large amounts of low-quality coal (lignite) from the nearby Chikuho region, which, due to its high water content, emitted significantly more soot, smoke and oxides than coal of a higher density, the two previously idyllic fishing and farming villages of Yahata and Tobata became notorious for their blackened skies.[185] The serious pollution from the Steelworks' around-the-clock operation did not escape the attention of the Asahi Newspaper, who commented that 'in Meiji 43 [1910], the number of boilers reached 136 [in Yahata], the heretofore highest number in history, and five-hundred smokestacks protruding the skies constantly emitted black smoke. Coal sludge noisily fell on the roofs of houses of the local population, and the noses of the children playing on the street are smeared pitch black'.[186] This description provides a hint of how Tobata must have looked like by the 1920s, when major companies like Hitachi Metals (1911), Asahi Glass (1914), Meiji Sugar (1916), Toyo Seikan (1917), and Nihon Suisan *(Nissui)* (1919) were running full production.[187]

Whilst pollution levels in Yahata and Tobata had been high since the early twentieth century, the numbers from the 1950s and 1960s were alarming. In Yahata and Tobata, companies

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[181] I. Inkster, *Japanese industrialisation: historical and cultural perspectives* (Cambridge, 2001), p. 66; F. Oda, M. Arigawa, S. Yonetsu and Y. Kamizaki, *Kitakyūshū no rekishi* [History of Kitakyūshū] (Fukuoka, 1979), p. 184.
[182] N. Shimizu, 'The Establishment of the state-owned Yahata Steelworks', *Journal of Business Economics,* 16:2 (2010), pp. 109–45.
[183] Inkster, *Japanese industrialisation*; Oda et al., *Kitakyūshū no rekishi*, p. 184.
[184] Tobata City, *Tobatashi: Shisei Yōran* [Tobata City: Handbook on the Conditions of the City] (Tobata, 1953); Kitakyūshū City, *Kōgai taisakushi: bunsekihen* (Kitakyūshū, 1998).
[185] Kitakyūshū City, *Kitakyūshūshi kōgai taisakushi: bunsekihen,* p. 201.
[186] Cf. E. Hayashi/Kitakyūshū Forum on Women, *Women and the environment: environmental history of Kitakyūshū and anti-pollution movement promoted by women* (Kitakyūshū, 1995), p. 6.
[187] Kitakyūshū City, *Kitakyūshūshi kōgai taisakushi: bunsekihen*, p. 187.
List Tobata's major companies that were established before 1920: 筑豊骸炭製造 (1896); 戸畑耐火煉瓦 (1903), 高谷鉄工所 (1904), 明治紡績 (1908), 戸畑鋳物（日立金属）(1911), 旭硝子牧山工場 (1914), 明治製糖 (1916), 東洋製罐戸畑工場 (1917), 共同漁業（日本水産）(1919). In 1936, further pollution came from the newly-established branch of Yahata Steelworks (日鉄八幡戸畑工場) and *Meiji Seika* (明治製菓).

were releasing tons of soot, smoke, and toxic effluents into the air, bay and rivers each day. In 1963, atmospheric pollution from Yahata's 388 factories was so severe that the Shiroyama district received national attention as Japan's (and probably even the world's) most polluted area by the mid-1960s.[188] An average of over eighty tons of dust per square kilometre fell each month in 1965.[189] As the biggest company not only in Yahata and Tobata, but also the largest steel work in the whole of Japan and Asia, Yahata Steelworks alone released as much as twenty-seven tons of particulate matter per day from its sixty-two smokestacks in 1961, darkening the city's skies day and night.[190] On top of such visible soot and smoke pollution, residents living near the industrial areas also suffered from large amounts of sulphur emissions, especially after the shift from coal to petroleum and heavy oil as the major energy source in the early 1960s. After output in the Tobata branch of the Steelworks doubled between 1959, when Yahata Steelworks inaugurated Japan's first integrated iron and steel mills with shipping port (as well as Asia's first 1,500 ton blast furnace), and 1961, when production reached full capacity, Yahata Steelworks alone emitted 607 tons of toxic sulphur oxides every year. This had the effect of killing plants and trees in the vicinity. The provision of around twenty-five percent of Japan's iron and steel demand in 1960 came at a high price, which had to be borne by the population of Tobata and Yahata, where large parts of the citizen suffered from debilitating respiratory diseases.[191]

Dōkai Bay, once hailed as 'treasure house for fish' (*sakana no hōko)* with visibility of over five metres in the immediate post-war years (1946-1949), had turned into the 'Sea of Death' according to the citizens of Kitakyūshū.[192] Untreated effluents from over two hundred companies released large amounts of highly toxic cadmium and cyan into the bay along the forty-four kilometres of man-made coastline, killing all aquatic life in less than twenty years of massive industrialisation. By 1969, upper COD (chemical oxygen demand) levels had reached 74.6 mg/l, over seven times higher than in other industrial metropolises such as Ōsaka, Kawasaki and Nagoya.[193] The water in the shallow bay of Yahata, Tobata and Wakamatsu was so toxic that not even *e.coli* could survive in the water's lethal environment by 1965. When a worker at the local ferry company drowned in 1967, rumours spread that he died because 'he drank the water of

[188] Kitakyūshū Yahata Shinyō Bank, *Waga furusato Yahata* [Our hometown Yahata] (Kitakyūshū, 1995).
[189] City of Kitakyūshū, *Pollution countermeasures of the City of Kitakyūshū, Japan. How the people of Kitakyūshū overcame air and water pollution through co-operation and technology* (Kitakyūshū, 1998).
[190] Y. Hoshino, 'Japan's post-Second World War environmental problems', p. 68.
[191] Kitakyūshū Yahata Shinyō Bank, *Waga furusato,* p. 427.
[192] Unpublished and un-catalogued archival materials based on interviews, Environmental Museum Kitakyūshū.
[193] Kitakyūshū City (1998), *Pollution countermeasures*, p. 25; Oda et al., *Kitakyūshū no rekishi*, p. 222.

Dōkai Bay', which shows that the general population had been aware of the toxic environment of the bay well before media displayed any attention towards it.[194]

Pollution in Yahata and Tobata was not only a temporary feature. With mountainous areas in the south, the majority of fumes, soot, smoke and sulphur were trapped over the city, colouring the skies in red, yellow and black, or even forming thick layers of smog. Similarly, due to the shallowness of Dōkai Bay and the lack of tidal waves, the toxic effluents released into the bay remained there, and accumulated several layers of sludge at the bottom of the ground. This rendered pollution a more or less permanent feature of both Yahata and Tobata until the late 1970s. Whilst most communities along the Pacific coast belt between Tōkyō in the north and Kitakyūshū in the south, where as much as eighty-five percent of Japan's entire production facilities was concentrated by 1974, were suffering from the effects of pollution, the spatial intensity of pollution was amongst the highest in Tobata and Yahata.[195] As a result of rapid industrialisation and massive land reclamation of the natural environment around Dōkai Bay in the early twentieth century, as much as seventy percent of the city area of Tobata, and fifty percent of Yahata, were occupied by industrial sites in the 1960s. As some of Japan's most dense industrial agglomerations, it can be argued that instead of being a home for humans with employment opportunities in the vicinity, Tobata and Yahata presented two industrial production centres with a nearby labour supply. Industry, especially the Yahata Steelworks, which owned more than half of the whole area of Tobata, dominated the cityscape and left the two cities amongst the most heavily polluted in Japan.

III. II Tobata's pollution in the 1960s

At least by the turn to the 1960s, industrial pollution, especially from the Yahata Steelworks, had reached a level were it started to dominate the everyday lives of citizens. Tobata and Yahata had both become a 'department store of pollution' according to the population, which referred to the abundance of all sorts of pollution. Due to pollution, the lifestyle of residents near the major polluting factories often developed differently than in other parts of Japan. Much attention and care had to be given to protect the family, pets, plants, house and material possessions from pollution, and this fight not to let pollution dominate their private lives had developed into a major time- and money-consuming exercise by the 1960s. Starting with trivial things like cutlery rusting inside the kitchen drawers and local ladies leaving the house with a

[194] S. Nakamura and T. Handa (eds.), *Kitakyūshū no rekishi: dsusetsu Kitakyūshū no rekishi* [History of Kitakyūshū: history of Kitakyūshū in pictures] (Tōkyō, 2008), p. 222.
[195] Hoshino, 'Japan's post-Second World War environmental problems', p. 66.

made-up ‘anti-pollution umbrella’, hoping that this would help prevent their dresses and hair from being stained by flying ashes and soot, Tobata and Yahata became the scene of a ‘pollution-protection lifestyle’.[196] Whilst not being able to open the windows or to hang laundry outside when the wind blew directly from the factory side was only a minor issue in the beginning, the permanence of these restrictions quickly rendered these trivial cuts in personal freedom into serious issues, sometimes even inducing into mental health problems amongst housewives, who were most constantly affected by pollution.

Unlike in other Japanese cities, where the spread of electric home appliances provided housewives with more private leisure time, equipping women with time for personal enjoyment and consumerism, large parts of women’s time in the most polluted areas of Tobata and Yahata was consumed by trying to keep airborne particles out of their house. Juggling with the decision whether to close the windows to prevent soot from entering the house, with the result of suffering from the unbearable summer heat, or to accept the layers of black dust that accumulated on the *tatami* (rice straw mats) within hours of opening the windows on days when the wind blew from the direction of the major companies, women in Tobata and Yahata were pushed to pick the lesser evil rather than finding a satisfactory long-term solution. Trying to protect the residents from particles, Fukuoka prefecture went so far as to permanently close the windows facing the factory side with sturdy nails in the prefecture-built *koshiba danchi*. Ironically, *koshiba* does not only mean ‘small lawn’, alluding to an idyllic, natural living environment, but the apartment complex was also one of the most modern buildings, constructed to display progress and a bright future after WWII. With whole windows closed, it is, however, questionable how ‘bright’ the future residents could expect. Inhabitants of other apartment buildings added an extra layer of cellophane tape on the window frame, which, whilst preventing large amounts of pollution, gave people little access to air circulation and very few opportunities to enjoy the summer breeze.[197] Residents that had access to fresh air and sunlight recalled that ‘in summer, when it was too hot to sleep with the windows closed, you woke up not only with the futons covered in soot, but also your face was pitch black’. According to Hayashi, ‘children sleeping like this did not look alive’.[198]

The fight against pollution became a daily exercise, as it had become commonplace to clean the stained tatami rooms three to five times a day in those areas of Yahata and Tobata that were adjacent to the major factories, or which were sandwiched between production sites. Representatives of the women’s associations voiced the depth of their concern in their

[196] Unpublished and un-catalogued archival materials based on interviews, Environment Museum Kitakyūshū.
[197] Hayashi, *Kore ga kōgai da*.
[198] Ibid, p. 11.

documentary on what can be rightly described as 'pollution hell': 'Pollution is greatly harming the lives of citizens, […] infringing on their rights.[199] Whilst it was housewives and mothers who suffered the most emotional discomfort from pollution, they were not the only ones who had to cope with excessive cleaning. Students in the Shiroyama Elementary School were faced with the task of cleaning their classroom three times a day. Their teacher Michiko Wada recalls that 'every day, the children put their chairs on top of the desks and cleaned the room, starting from the ceiling. In the swimming pool, soot accumulated to thirty centimetres in height, which the children and teachers cleaned up by putting everything in buckets.'[200]

Equally bothersome and physically exhausting was the women's fight against pollution whilst doing laundry. As air pollutants from the factories stained freshly washed laundry hung outside in no time, people living in Yahata and Tobata joked that 'clothes are whiter before doing laundry than after'. Removing the dark stains did not only pose a considerable economic burden as soap and dry cleaning bills exploded, but also led to physical exhaustion amongst many women who could not bear the hard labour of removing the stains over and over by hand. In 1965, according to government data, seventy-eight percent of all Japanese households possessed a washing machine, a figure that rose to over ninety-two percent in 1970. However, in most of Tobata's heavily polluted wards such as Sanroku, where seventy-five percent of respondents described stains on their laundry as 'severe' (*hidoi*), the majority of all households (fifty-three percent) did not possess an electric washing machine in 1966, according to the results of the questionnaire survey by Tobata's collaborative women's association.[201] Even for those privileged enough to own a washing machine, this technical progress did not translate into more leisure time or less physically demanding housework, as most housewives had to do laundry over and over again once the direction of wind changed and blew soot particles directly onto the wet clothes hang outside. The chemical components of sulphurous gases furthermore left permanent yellow stains on most white fabric, which no amount of hard labour could remove.[202]

The foregoing evidence shows that although the late 1950s and 1960s saw rapid progress in terms of the usage of electronic home appliances in the household, most women in Tobata and Yahata did not benefit from this. Due to pollution, their workload in the household only increased. Similarly, whilst many women lived in modern apartments built in the 1950s, hailed as great

[199] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii*.
[200] Kitakyūshū City Environmental Bureau, *Eco tour guidebook* (Kitakyūshū, no year), p. 7.
[201] J.W. Bennett and S.B. Levine, 'Industrialization and social deprivation: Welfare, environment and the postindustrial society in Japan', in H.T. Patrick (ed.), *Japanese industrialization and its social consequences* (Berkeley, Los Angeles & London, 1976), pp. 439-92; Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*, p. 169
[202] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*.

progress and a symbol of 'modern Japan', their lifestyle often remained unchanged. Although they might have had a new all-purpose in-built kitchen with electronic devices that spared them the time-consuming effort of boiling rice on the open fire on the muddy ground of a dark kitchen, their 'modern life' was often constrained by the fight against pollution. By shielding them from the air that could bring in bad smell or soot particles and by permanently closing whole windows, many women had an existence removed from nature as they tried to protect their family's health and lifestyle. Living in a secluded room, residents of the most polluted areas of Tobata and Yahata even started to fear natural forces such as wind, as it carried harmful pollution, changing many citizens' relationship with nature. Whilst Yahata's and Tobata's new apartment complexes had names that evoked ideas of an idyllic lifestyle in harmony with nature, such as 'small lawn' (*koshiba*) or 'peach garden' (*momozono*), people's lives were not as pastoral as often assumed. The Sisyphus-like fight against pollution, hoping to protect the highly delicate *tatami* or *shoji* paper on the windows which 'turned black within one month and had to be renewed', shows that the 'traditional' Japan was not equipped to pay resistance to the by-products of the 'new' Japan, namely pollution.[203]

III.III Health effect of Tobata's pollution: physical and mental repercussions

Due to the futility of the continuous efforts to keep their houses clean, to protect their family's health and to control pollution-related expenditure whilst at the same time being exposed to bad smell, loud production noise at night and unbearable heat inside apartments, a considerable number of local women started to develop a 'pollution neurosis'. As the term, describing psychological distress and exhaustion from industrial pollution, had already been coined by the early 1950s and increasingly appeared in national newspapers, it can be assumed that industrial pollution had inflicted serious psychological damage long before its adverse effects on the human body were recorded. Whilst it was predominantly women who were portrayed in the newspapers as victims of pollution, Hayashi pointed out that it also affected males and children: 'My whole family suffered from pollution neurosis.'[204] It was not only stress and mental exhaustion from endless cleaning tasks, but also the uncertainty of the medical effects of pollution coupled with the fear that the immediate family could fall victim to the quickly spreading pollution diseases such as asthma that inflicted mental fatigue. As it was considered the tasks of females to protect the family and household budget, women had a higher propensity to be affected by this 'neurosis'.

[203] Hayashi, *Kore ga kōgai da,* p. 40.
[204] E. Hayashi, 'Kōgai tōhi kōki' [Recordings of the escape from pollution], in Id., *Kore ga kōgai da,* no pagination.

Furthermore, conflicts between husbands, who often worked in polluting factories or in one of the hundreds of subsidiaries and subcontractors, and wives, who accused their partners of supporting pollution through their work, spurred tension inside numerous families in Tobata and Yahata.

Whilst many of these mental health issues do not appear in statistics on the destructive nature of pollution, there is evidence that pollution in Kitakyūshū and other cities had a severe negative impact on the physical condition of citizens. The most obvious and clearly visible health effects of pollution were the red eyes, which children rubbed in the hope of calming down the itchiness caused by chemical gases, as well as runny noses and soar throats due to the soot and smoke particles in the air. More permanent and increasingly, however, was the skyrocketing occurrence of asthma amongst children and the elderly, who suffered disproportionally from breathing problems and other oto-rhino-laryngological diseases, which was later confirmed in several studies commissioned by Kitakyūshū's local government.[205] A large number of the elderly patients were put under extreme stress, not only because asthma attacks at night deprived them of their sleep, but also because the steadily increasing medial expenditure for treatment and medication exerted financial pressure on many retirees. As neither the local government nor the polluting factories bore the costs of Tobata pollution victims' medical treatment (unlike, for example, in Yokkaichi, where a 'Public Relief System' was introduced in 1965), many senior citizens had to depend on their family for support. Being unable to pay the medical bills at a time when universal healthcare was not yet introduced in Japan and when about half of the medical costs had to be borne by the insured person, many elderly patients not only suffered from the physical pain asthma induced, but also from feelings of shame for depending on their children. This, coupled with desperation, often led to severe mental distress. In *Kore ga kōgai da* [This is Pollution] (1968), a patient reveals that it hurt him to ask his son for help, knowing that he himself only had little savings whilst prices were rapidly rising.[206]

Often overlooked in accounts on the effects of pollution is the significant financial burden it posed on the general population. According to a questionnaire survey by the women's association of Tobata, the average household spent 373 yen on dry cleaning bills, and another 263 yen on cleaning utensils, soap and laundry detergent each month in 1965. Mothers changed the clothes of their children up to four or five times a day, and ended up doing the laundry equally

[205] Kitakyūshū City, *Pollution countermeasures*, 1999. Studies by Kyūshū University in 1971 confirmed the finding that absence rates at elementary schools in highly polluted areas, such as the Shiroyama Elementary School, were outstandingly high, with about forty percent of students being absent in a highly polluted month. 'Dōkaiwan wo kokuhatsu suru: han kōgai tōsō iinkai' [Complaining Dōkai Bay: committee for the struggle against pollution], *Kyūshūdaikagu Shimbun* [Kyūshū University Newspaper], 629, 15 April 1971.
[206] Hayashi, *Kore ga kōgai da*.

often per day.[207] In the most polluted areas of Tobata, considerable parts of the population spent over 500 yen a month on dry cleaning, in addition to up to 500 yen on soap.[208] The biggest expenditure, however, was medical bills. These could consume up to one third of the male breadwinner's salary in the polluted areas of Tobata and Yahata, where citizens developed asthma on a large scale, and averaged around 2,500 yen per patient per month.[209] In extreme cases, pollution could even pose a threat to the economic survival of pollution victims outside of paid employment. Even for the average worker, whose monthly starting salary was around 13,000 yen in 1960, pollution-related expenses posed a significant burden.[210]

The previous descriptions highlight how pollution directly impacted human health and people's lifestyle on a short- and medium-term basis. However, the effects of pollution did not stop with lifestyle changes, but had more far-reaching effects, interfering in human nature and even evolution. On top of inflicting changes in people's biorhythm, in less than five decades of severe pollution, humans and animals alike displayed physical changes to protect themselves from soot and smoke. This case highlights a rare case of adaptation and an outstanding development in human evolution in some parts of Tobata and Yahata. Changes in nearby residents' biorhythm were predominantly triggered by the introduction of around-the-clock production at Yahata Steelworks and other major firms in the 1950s, stimulated by increasing demand for iron and steel. As energy prices were lower during night, energy-intensive tasks were increasingly executed during night-time shifts at Yahata Steelworks. The hauling of machines and the explosive noises from the oxygen jet interfered with the sleeping patterns of nearby residents, rudely awakening them at night and often considerably shortening their sleeping time. Several interviewees, many of whom were experiencing their childhood in the 1960s, recall that the noises at night made falling asleep a difficult task. The smoke and gloomy colours arising from the industrial facilities were frightening.[211] Not few children imagined monsters or other mysterious creatures arising from the smoke of the Steelworks, making it hard for them to fall asleep and affecting concentrating at school the following day. Also, the natural distinction between day-time and night-time was largely obsolete in Tobata and Yahata, and with thousands of people working night shifts, trains ran twenty-four hours, seven days a week. As many shops remained open throughout the night to cater for workers returning home, the production hours of Yahata Steelworks, not nature, largely shaped the life in the city by the 1960s.

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[207] Ibid, p. 169.
[208] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*, p. 170.
[209] Hayashi, *Kore ga kōgai da*, p. 50
[210] Interview with Kazuhiro Kumai, 10 May 2012.
[211] Interview with Sumiko Yamamoto, 18 April 2012.

On top of shaping daily routines and the population's relationship with nature, pollution also affected human evolution, with several body features being more pronounced than amongst residents in other cities. Within several years of strong dust and soot pollution, residents of Yahata and Tobata developed longer and thicker nostril hair, and in a 1966 pollution questionnaire survey by Tobata's women's association, seventy percent of all respondents from Tobata confirmed this biological phenomenon.[212] Even young children with fair facial features were increasingly spotted with thick black hair growing out of their noses to protect their immune system from the thousands of tons of particles in the city's air, by blocking soot from entering their bodies. 'This adaptation to the polluted living environment was already visible amongst children as young as two years', which highlights not only the rapid pace with which the bodies of Tobata's and Yahata's population responded to high pollution, but also that large parts of the population were negatively influenced by pollution.[213] Hayashi, who moved from the nearby countryside to Tobata in 1962, remembers his first visit to the Barber's in Tobata, who, in delight, pointed out to his unusual 'gentleman-like' feature of having short, rather thin nostril hair that was not immediately visible. Only after living in Tobata permanently, his nostril hair grew longer and thicker, just like during his student times in polluted Tōkyō in the late 1950s, according to Hayashi.[214]

However, it was not only humans that adapted to the adverse natural conditions. Even monkeys in the local zoo started growing nostril hair as part of their body's internal protection against pollution.[215] Nature, both in form of plants and animals, was impacted by pollution at least as much as humans themselves, with all of them either adapting to pollution, or greatly suffering from it. A local female resident of Tobata and a professional bird breeder recalled that the voices of people, as well as of birds, changed due to pollution. The female resident joked she was happy that severe pollution only started after her wedding. 'You know, in Japan, men tend to select their future wife according to her facial features. My face was not particularly pretty or memorable, but I had a very charming, soothing voice, several men told me. My husband, I believe, was also attracted by my cheerful voice. After years of exposure to Tobata's pollution, however, my voice had become dark and low, rather masculine, and much less fascinating then when I was young. I can be happy I found a marriage partner before all the air pollution changed my voice!'[216] This phenomenon of voices getting lower following exposure to soot and smoke for years was voiced several times by different respondents. Similarly, even the bird shop owners complained that their

[212] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*.
[213] Hayashi, *Kore ga kōgai da.*
[214] Interview with Eidai Hayashi, 12 May 2012.
[215] Hayashi, *Kore ga kōgai da.*
[216] Interview with Sumiko Hatayama, 28 March 2014.

canaries had much lower singing voices than birds from other parts of Japan. 'Believe it or not, even birds suffered from asthma in Kitakyūshū'.[217] This change in the bodily features of canaries even caught the attention of a Yomiuri Newspaper reporter, who pointed out that in national bird singing contests, canaries from Yahata or Tobata never won. However, at the same time, Kitakyūshū's red canaries received attention because of their impressive colours, as the black soot that stuck to the feathers made their red colour full of contrast, and significantly more intense.[218]

Industrial pollution furthermore damaged plants and the ecosystem. In Tobata and Yahata, numerous cherry trees, which are a great source of national pride in Japan, stopped blossoming from the late 1950s as toxic gases and soot in the air had destroyed the roots and leaves of the trees. In March and April, as communities in the whole of Japan gathered for cherry-blossom viewings (*hanami*) to enjoy nature at its fullest, citizens of Tobata and Yahata were increasingly deprived of such pleasures and unity with nature. Considering the outstanding role of *hanami* in social life and the collective memory of local Japanese communities, the absence of blooming trees in many parts of Yahata and Tobata was a big loss for the citizens. With cherry blossoms being considered one of the highest aesthetic experiences for the Japanese soul, Tobata's industrial pollution deprived the citizens of a major element of beauty in their life, as well as of the feeling of being able to start anew.

Similarly, other kinds of trees withered and often failed to bear blossoms or fruit, as Tobata's women's associations minutely noted down in their studies of pollution's effect on the natural environment.[219] According to their research, which was executed in collaboration with local residents in 1966 and 1967, the majority of local grasses and trees either suffered from pollution, or had developed severe mutations, especially on the leaves. The most vulnerable to pollution, however, were flowers and vegetables near industrial production sites, which often died overnight, 'as if someone had poured hot water on them'.[220] Their big leaves and weak roots were destroyed by toxic gases rising from nearby factories, rendering the many hours of hard work by thousands of residents to attain some degree of self-sustainability from growing vegetables literally a 'fruitless' effort overnight.

Yahata's and Tobata's pollution was deathly, as citizens realised from an early stage, before the carcinogenic effects of air pollution and the relationship between lung and respiratory diseases and air-borne particles was widely discussed in mainstream science in Japan. Plants died in gardens, and pet animals suffered. In Hayashi's garden in the highly-polluted Sanroku ward of

[217] Interview with Eidai Hayashi, 12 May 2012.
[218] Yomiuri Newspaper, 10 November 1966, based on unpublished and un-catalogued archival materials based on interviews, Environmental Museum Kitakyūshū.
[219] Kitakyūshū City Tobata Ward Collaborative Women's Associations, *Aozora ga hoshii II* and *III.*
[220] Kitakyūshū City Tobata Ward Collaborative Women's Association *Aozora ga hoshii II*, p. 137.

Tobata, the water in a small pond turned pitch black within weeks and the fish he constantly put in all died soon thereafter.[221] The owner of a small bird shop in Sanroku complained that about four of his canaries died every year, a number much higher than in non-polluted areas of Japan.[222] By the late 1950s, all fish had died in Dōkai Bay. Furthermore, by the late 1960s not even *e.coli* and algae were able to survive in the toxic environment.

Whilst there is no clear scientific evidence that the death rate amongst Yahata's and Tobata's residents was higher than the Japanese average, many interviewees recollected neighbours becoming seriously ill, or even dying, at a young age whilst not displaying obvious signs of a terminal illness. The father of one interviewee, a young schoolgirl at that time, passed away in 1964 whilst at work at Yahata Steelworks. Aged 30, he had no history of severe disease, apart from problems in his respiratory tract. Family and friends believe that his constant exposure to toxic fumes at Yahata Steelworks were the major reason for his early death.[223]

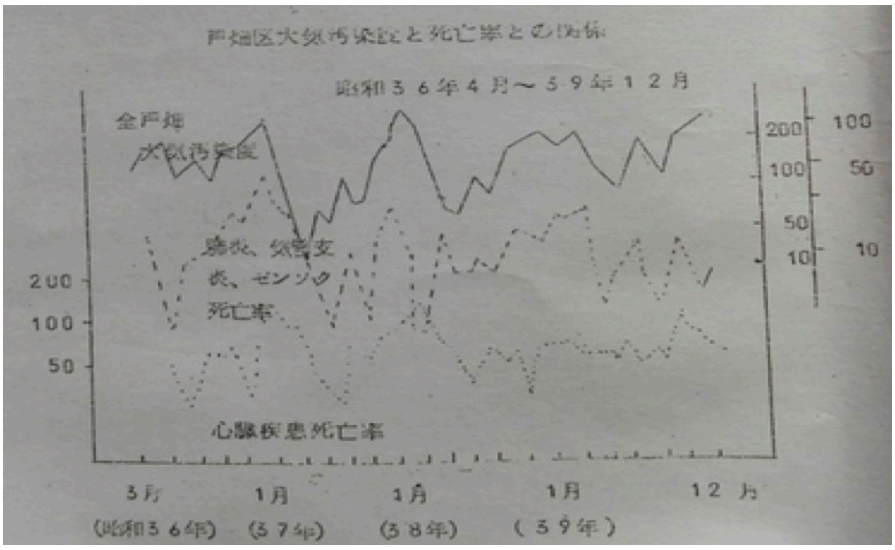

Fig. 33: The women's scientific research on the relationship between pollution levels and death rates in Tobata, March 1961 to December 1964 *(lower line: mortality rate from heart disease; central line: mortality rate from lung disease (asthma, pneumonia, bronchitis); upper line: air pollution levels).* The women's research shows a clear correlation between air pollution levels and death rates from lung/heart diseases.
Left y-axis: monthly mortality rate
Right y-axis: amount of deposited atmospheric impurity (tons/km2/month)

Death rate = $\frac{number\ of\ deaths\ x\ (365 \div days\ in\ respective\ month)}{Tobata's\ population}$ x 100,000

[221] Hayashi, *Kore ga kōgai da*, p. 27
[222] Yomiuri Newspaper, 10 November 1966, from unpublished and un-catalogued archival materials based on interviews, Environmental Museum Kitakyūshū.
[223] Anonymous interview, 25 July 2012.

Whilst the family of the deceased would never know if his premature demise was related to Kitakyūshū's notoriously high pollution levels, research by Tobata's women's associations, on Professor Nose's laboratory, suggested a correlation between the degree of air pollution and mortality rates. Their study on pollution's impact on human health between March 1961 and December 1964 found a correlation between pollution levels and mortality from both heart diseases and infectious diseases of the respiratory system (such as asthma, pneumonia, and bronchitis). Their research reveals the highest ratio diseases due to respiratory failures for January, a time when also air pollution levels were climaxing. Whilst correlation does not automatically equal causality, their research suggests that Kitakyūshū's industrial pollution was indeed fatal. Similar results had already been established by Nose et al. since 1957, who have successfully proven a correlation between Ube's senile and infantile mortality rates and both atmospheric impurity (insoluble matter) and rain fall.[224] This provides high credibility for the women's studies from 1965, which are a strong case regarding the danger of pollution on human health.

Whilst Tobata's citizens died from respiratory infections at a much higher level than in the countryside, it was not the only cause of concern. On top of physical diseases, Tobata and Yahata were also dying metaphorically. With citizens unable to withstand the physical and mental toll of air pollution, the Shiroyama area of Yahata turned from a modern residential neighbourhood into a deserted ghost city by the mid-1970s, within two decades of inauguration as Yahata's flagship 'model city'. Constructing hundreds of modern four-storied *danchi* in the early 1950s, the city government hoped for national recognition as a modern industrial metropolis. Unexpectedly, however, the only national 'fame' the Shiroyama area received was for having Japan's highest sulphur oxide pollution in 1965.[225] With an astonishing eighty tons of dust-fall per square metre around the Shiroyama Elementary School every month (under which the school roof eventually collapsed), it surpassed atmospheric pollution in all other parts of the country in most of the 1960s and early 1970s.[226] These high pollution levels were soon reflected in the detrimental health condition of local pupils, with the result that some schools, such as the Shiroyama Elementary School, was granted the permission to change the curriculum, introducing new subjects such as 'anti-pollution education', and ordering daily gymnastics in an effort to

[224] Y. Nose, S. Ueno, Y. Kitagawa, M. Nakayama, H. Ogawa, S. Hirose, 'Effects of exposure to air pollution on community health', *Annual Report of the Research Institute for Industrial Medicine, Yamaguchi Medical School*, V (1957), p. 12-54; Y. Nose, 'Effects of exposure to air pollution on community health', *Yamaguchi Medical School Bulletin*, 7:3 (1960), pp. 91-105.
[225] 'Yahata', *Asahi Shimbun Nenkan 1952* [Asahi Newspaper Almanac 1952], p. 300.
[226] Kitakyūshū City, *Kitakyūshūshi kōgaitaisakushi: bunsekihen.*

increase students' resistance against pollution.[227]

III.IV Social impact of Tobata's pollution: effect on personal and community well-being

As a result of this immense pollution, as much as ninety-eight percent of the population expressed a desire to move away from Shiroyama, as expressed in the *Give Us Our Blue Skies Back* documentary in 1965.[228] Similarly, less than fifteen in one hundred respondents living in the company-apartments of Yahata Steelworks in Tobata were happy with their current living situation and the pollution levels.[229] As result of this large-scale dissatisfaction, the Shiroyama area had lost the majority of its residents by the mid-1980s. The local Shiroyama Elementary School that was built in the vicinity of the Steelworks and other chemical and cement industries in 1956, when Yahata was considered Japan's cradle of a brighter future, had to be closed only twenty-one years after its grand opening, as student numbers dwindled from over 1,000 to less than 180.[230] With students displaying exorbitant levels of sick-leave, weak health, and mental and physical exhaustion from having to clean their classroom three times a day from floor to ceiling, the large majority of parents had decided not to expose their children to further pain and applied for other public housing options, or moved into private apartments in other locations.[231] Those students whose parents were unsuccessful in securing other accommodation had to get accustomed to wishing farewell to classmates on a regular basis. A young Shiroyama Elementary School student reflects in his school essay from 1970 on the pain of having to say goodbye to classmates, which had become a regular part of school life in the late 1960s and 1970s.[232] Within a few years, the Shiroyama ward of Kitakyūshū turned into a sign of decay and death; a memorial to how pollution destroyed human life and local communities.

[227] Interview with Kazuhiro Kumai, 10 May 2012.
[228] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii* documentary.
[229] Tobata Ward Kitakyūshū City Women's Association, *Aozora ga hoshii II.*
[230] Kitakyūshū City, *Kitakyūshūshi kankyō toshi kentei kōshiki tekisuto* [Textbook for Kitakyūshū's formal certification as environmental city] (Kitakyūshū, 2009).
[231] Kitakyūshū City Environmental Bureau, *Eco tour guidebook*, p. 7
[232] Ibid.

Fig. 34: Declining student numbers at the Shiroyama Elementary School (1955-1976), total student count

Whilst not all parts of Tobata and Yahata were exposed to the same pollution levels, industrial soot, smoke and sulphurous gases affected a large majority of the local population in the 1950s and 1960s, unrelated to their social status. For outsiders, these effects of pollution may have looked marginal, but for the residents, pollution increasingly shaped their daily life and social interactions. Unlike in the case of Minamata, were pollution victims were socially stigmatised due to their physical malformation and the predominantly working-class background of their victims, elements of 'shaming' and social exclusion (*murahachibu*) were minimal in the case of Tobata and Yahata.[233] This is predominantly because there was no clear social division amongst the victims, with board members of polluting companies suffering as much from the repercussions of pollution as blue-collar workers and their families, as they often shared the same *danchi* or lived in the same new residential areas. However, whilst obvious social discrimination within the community was largely absent, some residents of Tobata and Yahata experienced stigmatisation from people living outside the city boundaries. As noticed by Hayashi (1971), relatives would visit family members living in the polluted areas of Tobata and Yahata less frequently, and rarely stayed overnight. Such visits were often accompanied by complaints about itchy eyes and a pungent smell. Most non-resident family members and friends left the city by dusk each time they came to visit.[234]

Whilst children and the elderly seemed to suffer disproportionally from pollution as their bodies were the least resistant to asthma and other diseases, it demanded a great physical and mental toll from middle-aged men, especially since they were torn between supporting the

[233] A. Osiander, *Der Fall Minamata: Buergerrechte und Obrigkeit in Japan nach 1945* (Munich, 2007).
[234] Hayashi, *Yahata no kōgai.*

polluting companies who many husbands worked for, and confronting their work-place with demands to reduce pollution. In many family, tensions arose between the husbands, who could not understand how their own wives could protest against the very companies that provided part of the family's income, and the wives, who were shocked that their husbands continued to submissively work for the culprits of pollution, despite noticing that they own children had become sick from the toxic gases and soot. Finding themselves in a situation of inner-familiar conflict, coupled with doubts over whether their actions (female protest and male support of polluting companies) were morally right and sustainable often led to tension and mental issues.[235] What is more, women found themselves unable to fulfil their role as protector and nurturer of their family, which often disturbed them on top of being simply physically and mentally exhausted from the extra labour pollution entailed in regard to cleaning tasks. Whilst for men the psychologically demanding side of pollution was less pronounced, those male blue collar workers who were employed by the major industrial companies in Tobata or Yahata were exposed to direct pollution for at least eight hours a day. Like no one else, they had direct contact with soot, smoke and exhaust gases, and whilst pollution-related issues and diseases were neither discussed amongst the workers and labour union of Yahata Steelworks nor criticised in their magazine *Neppu* (Hot Blast), blue-collar workers might have experienced the highest level of physical danger and damage from pollution.[236]

Despite the different expressions of suffering from pollution amongst different age groups, there was a common element amongst all concerned citizens. The high occurrence of pollution changed the interpretation of and relationship with nature amongst local residents of all ages from being something enjoyable to a considerable danger. Children painted the sky black in their drawings, and even before entering school they understood and used difficult words such as *baien* (soot). Residents in the polluted areas of Tobata and Yahata experienced an increasing need to protect themselves from nature, hoping to win over natural forces like wind (which contained toxic fumes) by using modern technology in the form of air purifiers, or by completely shielding themselves off from nature by closing windows throughout the year. Furthermore, whilst in other cities nature, in the form of climate and the natural distinction between daytime and night-time, shaped human life and interactions, it was the companies and pollution that ruled citizens' daily routines in Tobata and Yahata. It was not based upon weather conditions like wind, sunshine and rain that people made decisions on when to run errands or how to spend free time, but levels of atmospheric pollution. Whilst in Japan houses are traditionally built according to natural patterns,

[235] Interview with Misako Katō, 17 April 2012.
[236] Labour Union of Yahata Steelworks, *Neppu* [Hot Blast] (1949-1971).

allowing wind to circulate in summer to provide a refreshing breeze, the population of Tobata and Yahata often had to combat such natural forces, working against Japanese housing traditions by barricading themselves inside and even permanently closing whole windows.

III.V Summary

As this chapter has highlighted, pollution greatly impacted upon the daily life, health, psyche and biorhythm of Tobata's population, social interactions in the community, citizens' interpretation of and relationship with nature, and the lifestyle of a city. Transcending this anthropocentric view, it has also highlighted that Tobata's pollution exerted great harm to animals and plants, which suffered from soot, smoke and sulphurous gases to a similar degree as the human population. Numerous trees and plants died, changing the character of the city, and the lack of cherry blossoms due to pollution left a particular impact on the local population. As has been revealed, pollution's impact was so large that it triggered biological changes and adaptation to pollution within a few years also amongst people, as well as the local flora and fauna, leaving long-lasting, often irrevocable damage. However, as life in Yahata and Tobata was largely dominated by their major industries and their emissions, resistance against the polluting companies outside the women's associations was sparse.

Whilst the generally apolitical, predominantly conservative women's associations are typically not the most pronounced social movement actors, they played a central role in Kitakyūshū's anti-pollution protest. Hoping to reveal why and how simple housewives in Tobata became major social activists, the following chapter will analyse the development of democratic ideas and practices in Kitakyūshū in the immediate post-war years.

CHAPTER IV: THE [RE]BIRTH OF CIVIL SOCIETY and the rise of anti-pollution activism in Kitakyūshū, 1945-1952

IV.I The rise of civic associations and anti-pollution activism in Japan, 1945-1952

When Japan surrendered on 2 September 1945, fourteen long years of Japanese military action in East Asia and the pacific came to an end. The war had taken a heavy toll on both civilians and the military. When the Allied Occupation forces arrived in Japan, many Japanese people suffered, both physically and mentally, not just from the shock of having to accept an unconditional surrender and foreign occupation, but also from having lost 1.8 million soldiers and 600,000 civilians, with another 300,000 wounded or missing. Japan was heavily damaged, having lost nearly nine times more homes than Germany, which left almost nine million Japanese people homeless.[237]

The outlook of Japan in the immediate post-war years would have suggested little motivation for involvement in civil society amongst the population, as most of the common indicators for social activism (which include personal well-being, financial resources, health and education) were largely absent as a result of the long years of war. Whilst Japan is remembered for a miraculous period of growth in the 1960s, the economy only recovered marginally in the second half of the 1940s, and industrial production was much lower than in the United States and all of the combatant European nations.[238] In 1950, industrial production amounted to only 70 percent of 1937 levels. As food supplies and financial support from the US government were much less generous than under the Marshall Plan in Europe, and with hyperinflation standing at 27,000 percent of pre-war levels in 1955, malnutrition and starvation was a serious problem in post-war Japan.[239] In short, the Japanese people not only suffered from economic, social and physical deprivation, but often also from psychological trauma.

According to most theories of social activism, such as the Resource Mobilization theory applied by Zald and McCarthy (1979) or the victory/defeat hypothesis proposed by Skocpol et al. (1999), the prevailing conditions of post-war Japan would have predicted little involvement in civic organisations.[240] However, the converse was true in the case of post-war Japan. Civil society thrived, and indigenous civic associations mushroomed throughout Japan in the immediate post-

[237] J.W. Dower, *Embracing defeat: Japan in the wake of WWII* (New York, 2000).
[238] R. Kage, *Civic engagement in postwar Japan: the revival of a defeated society* (Cambridge, 2011).
[239] Ibid.
[240] M.N. Zald and J.D. McCarthy (eds.), *The dynamics of social movements: resource mobilization, social control, and tactics* (Cambridge/MA, 1979); T. Skocpol, Z. Munson, A. Karch and B. Camp, 'Patriotic partnerships: why great wars nourished American civic voluntarism', in I. Katznelson and M. Shefter (eds.), S*haped by war and trade: international influences on American political development* (Princeton, 2002), pp. 134-80.

war years. In the wave of this sweeping change, citizens independently put forward new concepts of a society to which they aspired, with modernisation based on collaboration and mutual aid. In this manner, citizens were undertaking an unprecedented, nationwide discussion of novel, aspirational interpretations of democracy. In Tobata, females had not only formed and institutionalised new women's associations, but also initiated civil activism against pollution by 1950.

To arrive at a greater understanding of the women's civil movement in the context of post-war society, and to evaluate whether it was an exception to the prevailing culture of society, or was instead part of a larger movement of a proactive Japanese civil society, this chapter analyses democratic development in post-war Japan (1945-1952). Whilst focusing on the period of the Allied Occupation, the chapter refrains from analysing 'democracy' as a product of the Westernisation of Japan, but instead highlights the indigenous roots of Japanese democratic thought, and its unique application. To understand the background of how the female anti-pollution movement could emerge and succeed in the Nakabaru ward in 1950, and to evaluate whether Tobata's women's activism is part of a general rise of participation in civil society in the late 1940s, this chapter analyses the re-emergence of civic society associations. This is undertaken both at a macro-level (Japan) and a micro-level (Kitakyūshū and Tobata). Analysing the 'associational revolution' that took place in the immediate post-war years, with millions of citizens across the Japanese archipelago establishing civic groups, unrelated to GHQ both qualitatively and quantitatively, this chapter proposes that Japanese civil society was more developed than in the United States or Germany by 1952, challenging the notion that Japan's democratisation was largely the result of efforts by the Allied Occupation. It reveals how grassroots activism by Tobata's citizens developed soon after the war and shows that Tobata's women's associations' voluntarism based on mutual aid was only one of the numerous examples of a prospering civil society in Kitakyūshū.

The structure of this chapter is twofold: the first part consists of a quantitative analysis of civic activism in Japan between 1945 and 1952 based on empirical data from Tsujinaka et al. (2007) on institutionalised civil society in post-war Japan, highlighting the unprecedented growth of civic institutions in the immediate post-war years.[241] The second half will be devoted to a qualitative microanalysis of local grassroots civic organisation in Tobata during the Allied Occupation. This chapter thereby moves away from traditional American-centric accounts of

[241] Y. Tsujinaka, J.Y. Choe, H. Yamamoto, H. Miwa, and T. Ōtomo, '*Nihon no shimin shakai kōzō to seiji sanka: Jichikai, shakai dantai, NPO no zentaizō to sono seiji kanyo*' [The structure of civil society in Japan and political participation: overall picture of neighborhood associations, social associations, and nonprofit organisations and their political engagement], *Leviathan*, 41 (2007), pp. 7-44.

Japan's post-war democratisation attributed to efforts by GHQ, such as educational reforms and universal suffrage. Transcending efforts towards institutionalised democratisation by Japanese government elites, this chapter will show how individuals, small groups, and civic associations such as Tobata's women's associations, exemplified 'democracy' shortly following the end of World War II. This exemplar will be framed in the context of how democratic ideas and practices spread amongst the local population. Political activism is thereby not understood as active or passive suffrage or labour union participation, but as the practice of meeting in social associations to deliberate options for bringing about positive change in Japanese society. Scrutinising both the influence of the US on the creation of civic groups, and independent grassroots efforts by the local population, it will be highlighted that whilst reforms carried out during the occupation facilitated civic engagement, US policy equated to only a marginal influence on the rise of civil society in Tobata. In light of the outstanding number of co-operatives and societies that attempted to bring about positive changes within their local community, this chapter proposes that Tobata's citizens tried to create a 'just society' based on co-operation and equality.

IV.II Quantitative analysis of civic institutions during the Allied Occupation

The most comprehensive studies of civil society in the immediate post-war years consist of the recent works of Rieko Kage (2011), specifically writing about post-war Japanese society, and Tsujinaka et al. (2007), who described the institutionalised civil society under the Allied Occupation. Kage provides impressive evidence that whilst the 'extensive damage that Japan incurred [during WWII] should have led to a severe weakening of the social fabric, and the unconditional surrender of the Japanese regime should have led to a complete loss of faith in the nation's collective potential', Japan's civil society was in fact thriving immediately after the Second World War.[242] Debunking Skocpol's *victory/defeat hypothesis,* which would predict little civic volunteering in Japan, Kage shows that all four types of membership associations, youth and recreational groups, women's associations, social service initiatives, and religious organisations, displayed high growth rates. This was especially true during the US occupation, but was also apparent throughout the second half of the 1950s and in the 1960s. When considering levels of activism in purely voluntary membership organisations, including the semi-compulsory 'state-society straddler organisations' such as neighbourhood associations (*chōnaikai*), membership growth was much more rapid than during the relevant the pre-war period.[243] More astonishingly,

[242] Kage, *Civic engagement in postwar Japan*, p. 10.
[243] Ibid; R. Pekkanen, *Japan's dual civil society: Members without advocates* (Stanford, 2006).

the sharpest rise in membership took place between 1945 and 1955, when economic growth was still sluggish.

Using data from the comparative *Japan Interest Groups Survey* 2 (*JIGS2)* on civil society in ten countries, data which was collected from amongst 10,000 organisations over a ten-year period, Tsujinaka (2010) reveals that it was not just neighbourhood associations that were highly prevalent between 1945 and 1970. What the authors term 'social associations', which include women's and youth groups, commercial unions, labour unions, and religious groups, were established at a rapid pace immediately following Japan's surrender, right up until 1970.[244] According to empirical data, roughly twice as many civic groups were established per year in the late 1940s than in the 1980s. Whilst this drastic rise in civic organisations occurred predominantly at a local level, due to legislation that restricted supra-regional or national associations during the Allied Occupation, nation-wide associations, and national organisations of existing local groups, rapidly emerged after 1952. In addition to the rise of labour unions, women's organisations, neighbourhood associations and commerce clubs, alongside smaller civic groups including YMCA chapters, youth clubs and sports associations, gained a substantially wider membership base. The following chart (Fig. 35) clearly highlights the unprecedented surge in new civic associations after 1945.

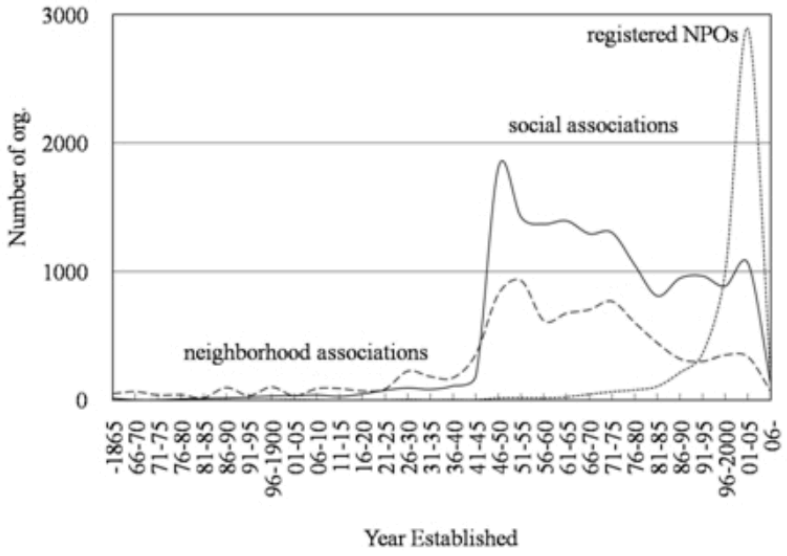

Fig. 35: Establishment of civic organisations in Japan, 1865-2006 (JIGS 2 survey by Tsujinaka, 2010)

[244] Tsujinaka, Civil Society in Japan, *Interfaculty,* 1 (2010), https://journal.hass.tsukuba.ac.jp/interfaculty/article/view/6/8; Tsujinaka et al. '*Nihon no shimin shakai kōzō to seiji sanka*.

Whilst the absolute number of newly established civic organisations is impressive when considered in isolation, an international comparison provides an even brighter picture of the state of Japanese civil society. More neighbourhood associations and social associations were established in Japan between 1945 and 1975 than in all other countries investigated (including Korea, USA, Germany, China, Russia, Turkey, Philippines, Brazil), as shown in Fig. 36.[245] Particularly noticeable from the immediate post-war years until 1960, an unprecedented wave of institutionalised civic groups is apparent, with twice as many such organisations forming in Japan than in other countries. This data demonstrates that Japan was a leader in an international comparison of institutionalised civil society during the first three decades following WWII. Contrary to common wisdom, both the victorious and vanquished nations, including those such as the USA and Germany that have been highly acclaimed for an active civil society, possessed less than half the number of civic groups of Japan in the 1950s and 1960s.

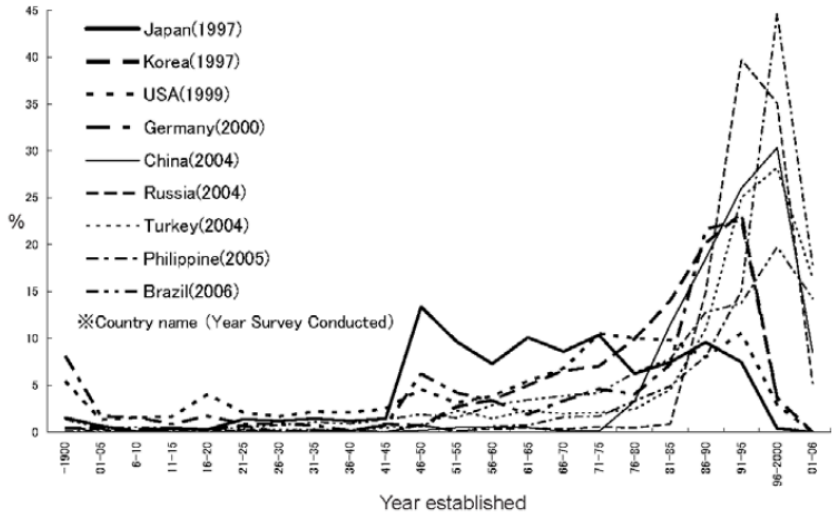

Fig. 36: Establishment year of civic organisations in selected countries, 1865-2006 (JIGS 2 survey, Tsujinaka, 2010)

This unprecedented growth of Japanese neighbourhood groups and social associations in Japan immediately after the end of WWII, which surpassed all other countries and was never again reached in Japan, is a clear indicator of a thriving civic spirit between 1945 and 1970. Whilst the term civil society had not existed in Japan prior to the 1990s, Tsujinaka et al.'s figures on the 'associational revolution' of the late 1940s and 1950s clearly highlight the existence of an active civil society in Japan in the first decades after 1945.[246] Between the late 1940s and 1960s, civic groups, especially women's clubs, co-operatives, chambers of commerce, business circles

[245] Ibid.
[246] Ibid.

and labour unions, thrived and reached an average level of twelve official organisations per 100,000 people in Japan, in addition to the numerous non-institutionalised groups that were not included in the *JIGS 2* survey. Kage's and Tsujinaka et al.'s research impressively demonstrates not only that Japan possessed a thriving civil society, but that in contrast to other countries, civic activism reached its peak before 1970, and not with the emergence of new social movements in the 1970s and 1980s, as was the case for most Western democracies. In numerous respects, Japan preceded other nations in civic activism levels, and civil society was already adopted during the US occupation, although sociological theories would have predicted otherwise. This refutes Skocpol et al.'s (2002) *victory/defeat hypothesis,* which predicts a lower degree of interest in civic institutions amongst the vanquished war nations. Moreover, it also shows that several aspects of *Resource Mobilization* theory, one of the most prominent explanations of social movements first proposed by McCarthy and Zald (1977), require some adjustment. Whilst Resource Mobilization theory proposes that available resources including financial means, educational levels, external support, and links to other social groups are of great importance for civil activism and social movements to arise, the absence of such factors did not hinder the creation of a lively civil society in impoverished post-war Japan.[247] Put differently, this result demonstrates that many established political theories are unable to explain the rise of Japan's civil society in the immediate post-war years, which thus necessitates new interpretations of Japan's democratic civil activism.

IV.III Japan's democratisation

Most political scientists and historians interpret the Allied Occupation of Japan as a prime example of the successful democratisation undertaken by the US military government, under General Douglas McArthur. This common theme is thereby rather America-centric, arguing that the occupation forces bestowed political and social reforms, such as the demilitarisation and democratisation of society, a new education system, and the liberalisation of the economy upon the Japanese people.[248] This tendency is also displayed in John Dower's seminal, Pulitzer-prize winning *Embracing Defeat* (2000), which outlines how Japan modernised by adopting American political ideas, concepts of democracy and popular culture. Dower (2011) argues that one of the

[247] J.D. McCarthy and N.Z. Mayer, 'Resource mobilization and social movements: a partial theory', *American Journal of Sociology,* 82: 6 (1977), pp. 1212-41.
[248] H. Borton, *Spanning Japan's modern century: the memoirs of Hugh Borton* (Lanham & Oxford, 2002); K. Kawai, *Japan's American interlude* (Chicago, 1960); T. Nishi, *Unconditional democracy, education and politics in occupied Japan, 1945-1982* (Stanford, 1982); J. Perry, *Beneath the eagle's wings: Americans in occupied Japan* (New York, 1980).

reasons for the success of the US occupation policies was 'the existence of a stable, resilient, sophisticated civil society on the *receiving end* of occupation policies', which 'embraced defeat' and the concomitant rule of the US uncritically (*emphasis added*).[249] Whilst the US inarguably should be credited for its democratisation efforts in Japan, Dower's description of the Japanese people, who were 'most *receptive* to radical change' in 'the brief window of a few years when defeated Japan itself was in flux', enabling the US to 'move decisively', seems somewhat passive (*emphasis added*).[250] This chapter highlights that his assumption of passivity amongst the Japanese population, on which Western interpretations of democracy were bestowed from above, needs to be reconsidered by highlighting the manifold grassroots activism and native practice of democracy amongst Japanese society.

Although revisionist scholars increasingly stress the input by the Japanese people, their focus on a, predominantly male, Japanese bureaucratic elite overlooks the grassroots efforts of unorganised individuals and small civic groups, who studied concepts of democracy and tried to spread democratic practice through local communities all over the Japanese archipelago. This chapter thus focuses on how countless unknown men and women in all regions of Japan contributed to Japan's democratisation and modernisation, in our present example of Tobata this was undertaken through the establishment of civic organisations.

On the basis of archival research in Kitakyūshū, supported by Tsujinaka et al.'s quantitative data and Kage's large-scale study on institutionalised activism in the wake of Japan's surrender, it is highlighted that some standard assumptions of Japanese society in the immediate post-war period, especially regarding the presumed passiveness of Japanese society regarding GHQ, have to be reconsidered. Several historians, such as Dower (2000) and Matray (2000), argue that the occupation inflicted a psychological trauma on the Japanese people, as they had to face foreign occupation and a complete dismissal of their political system and its inherent institutions. The authors propose that this massive attempt towards nation-building and Western-influenced reforms, which abolished most of the major structures of the pre-war Japanese state, such as corporate conglomerates (*zaibatsu*), militarism, and totalitarian education, left a large proportion of the Japanese nation in shock.[251] Dower, one of the most distinguished scholars on the US occupation of Japan, famously introduced the concept of *kyōdatsu*, a form of despair and exhaustion from which large parts of the Japanese population is believed to have suffered shortly following Japan's surrender. Whilst acknowledging the grave living conditions after 1945, this

[249] J.W. Dower, *Cultures of War: Pearl Harbour / Hiroshima / 9-11 / Iraq* (New York & London, 2011), p. 338; Dower, *Embracing Defeat.*
[250] Dower, *Cultures of War,* p. 328.
[251] Dower, *Embracing Defeat*; J. Matray, *Japan's emergence as a global power* (Westport, 2000).

chapter points out that the Japanese people were far less shocked and paralysed. Instead, active Japanese citizens between 1945 and 1952 placed great efforts in shaping the new Japanese state, not only formally by way of institutionalised groups, but also in the countless informal actions initiated by individual citizens. Furthermore, this chapter highlights Japanese attempts to re-construct the nation and to build an active civil society. It is argued that the democratisation of the Japanese people, and the rebirth of civil society were, to a large extent, due to the grassroots efforts of the Japanese people, rather than being a process of 'democratisation from above'. The active democratisation efforts of the Japanese people found expression not only in the creation of countless civic organisations, but also in a multitude of social movements that followed soon after. Fuelled by a democratic spirit and a desire to improve the local community, a great number of civil associations and individuals used their newly-acquired democratic rights, civil skills and high social consciousness to address wrongdoings in Japanese society. Apart from labour conditions, which was a topic pushed by the growing trade unions, the majority of civic groups focused on environmental and health issues, concentrating on industrial and radioactive pollution, as well as food safety. Women in particular, whose interest in and understanding of politics had been nurtured by their involvement in civic organisations, became active proponents of environmental protection, consumer rights, and food safety. Awareness of their right and responsibility to become active in politics also came from weekly newspaper columns like Asahi Newspaper's New Women's Course (*shinfujin kōza*), which had encouraged women to 'influence politics from the kitchen' since early 1946. This allowed women to combine their traditional role as the nurturer and caretaker of the family, with a new understanding of women as political agents.[252] Learning about different political ideologies such as capitalism and socialism, and being encouraged to play an active role in politics, women increasingly became drivers of civil society, and a multitude of powerful consumer and anti-pollution movements developed in the 1950s and 1960.[253]

IV.IV Co-operation over competition: the spread of guilds, co-operatives and chambers of commerce in Tobata, 1945-1952

According to statistics from Tobata's city administration published in 1954, Tobata possessed an impressive forty cooperative guilds (*kyōdō kumiai*), fifty business associations, three local branches of national labour unions, as well as a further thirty-three labour unions amongst

[252] 'Shinfujinkōza: shihon shugi to minshu shugi' [Capitalism and Democracy], *Asahi Shimbun West Japan edition*, 26 March 1946, p. 21.
[253] 'Shinfujinkōza, 'Seiji mo daidokoro kara. Minshushugi to ha konna mono' [Also politics from the kitchen: that's democracy], *Aasahi Shimbun West Japan edition*, 16 February 1946, p. 21.

its local industries in 1952.[254] Together, these amounted to 126 commerce and industry-related associations for its 97,200 inhabitants. Whilst no membership figures for the smaller cooperative guilds and business associations exist, Tobata's labour unions alone boasted 7,158 members (including 1,800 women) as of June 1952.[255] Such high figures highlight not only the role of industry and business in Kitakyūshū, but reveal Tobata's outstanding civic activism in the immediate post-war years. Whilst Tsujinaka et al.'s quantitative data suggest that an average of twelve civic groups existed per 100,000 Japanese inhabitants in the 1950s, there were 128 commerce and industry associations alone per 100,000 citizens in Tobata. Even without considering the magnitude of other civic organisations, these numbers suggest high levels of civic activism amongst Tobata's citizens, surpassing social associations in other communities approximately ten- to fifteen-fold.

In Japan, chambers of commerce and industrial unions have existed since the 'first wave' of institutionalised civic engagement in the Meiji period. Tobata's and neighbouring Yahata's chambers of commerce and industry, as well as labour unions of larger companies, are relics from the Taisho (1912-1926) or early Showa (1926-1989) periods. With roots dating back to 1928, the Yahata Chamber of Industry and Commerce (*Yahata Shōkōkaigijō*) managed to re-organise and officially resume business in October 1945, less than two months after Japan's surrender. This extreme speed is impressive, and highlights the pro-active nature of Tobata's citizens in reviving the local community and contributing to the rapid reconstruction of Japan.[256]

Whilst Yahata's Chamber of Industry and Commerce was established in the 1920s, the majority of Tobata's cooperative guilds, business associations and labour unions originated between 1949 and 1952, and presented an attempt by civil society to facilitate development through co-operation. In 1953, only two further co-operative guilds and one business association were added to the existing forty-eight, underlining the impressive speed of civic activism in the late 1940s. The co-operative guilds that mushroomed between 1949 and 1952 were highly diverse and inclusive, ranging from the Co-operative of Tofu Producers & Sellers to the Co-operative of Ironworkers, representing most business areas, such as agriculture and fishery, commerce, foodstuffs, clothing, construction and heavy industries.[257] The sheer number of such associations shows that at a time when large parts of Kyūshū's population struggled to make ends meet,

[254] Tobata City, *Tobatashi: shisei yōran* [Tobata City: Handbook on the conditions of the city] (Tobata, 1953).
[255] Ibid.
[256] Yahata Chamber of Commerce and Industry, *Yahata Shōkōkaigijo shishi* [Journal on the history of the Yahata Chamber of Commerce and Industry] (Yahata, 1943); Id., *Yahata shōkōkaigijo zenshi: Kitakyūshū keizai hattenshi* [Complete history of Yahata Chamber of Commerce and Industry: history of economic development in Kitakyūshū] (Yahata, 1965).
[257] Tobata City, *Tobatashi*.

employees of all branches met to create new organisations that were not based on competition, but on co-operation and mutual support, with the aim of invigorating the local community. Direct reference to the well-being of the local community, encompassing all citizens, can be found in the official statutes of Yahata's Chamber of Commerce and Industry from September 1950, whose aim was defined as reflecting the 'impartial public opinion from *ordinary citizens*, and to use the synthesis of these opinions to improve the Chamber of Commerce and Industry in order to contribute to the advancement of the welfare of *ordinary citizens* ('*ippan shimin'*) as well as to the economic development of Japan' (*emphasis added*).[258]

This support for local citizens and the aim of reflecting popular opinion to advance local development is an outstanding attempt from both monopolistic industrial conglomerates and smaller business-owners, who collaborated in Yahata's Chamber of Commerce and Industry to contribute to a democratic community and promote a 'just society'. Further attempts to encourage local dialogue, and to create a democratic culture of debate, can be inferred from the Chambers of Commerce and Industry's regulations. The first rule for members was to 'publicly proclaim their opinions or [...] deliver them to appropriate government institutions'.[259] In an effort to initiate dialogue amongst the local community, the rules announced the intention of holding seminars and lectures to improve the welfare and prosperity of the local region, and to provide free tax advice for 'ordinary citizens' (Articles 9 and 12).[260] Instead of being an exclusive club, Yahata's Chamber of Commerce and Industry explicitly offered their services 'to everyone who requests them' ('*irai ni ōjite'*), keeping the local community and its well-being as reference frame for civic activism.[261]

Despite the name and outlook, the Chambers of Commerce and Industry's activism was guided by a desire to spread democratic values and practices amongst the local population. In contrast to the interpretations of democracy by the occupiers of the country, however, their primary goals was not to promote rigid democratic structures and procedures and to adhere to a US-influenced concepts of democracy, such as active and passive suffrage. Instead, the goal was to promote deliberation amongst all sectors of society, and to produce a three-way dialogue between citizens, policy-makers and industry. The members' understanding of progress and modernisation was not focused solely on economic profit, but instead was influenced by the opportunity to spread well-being and wealth throughout the local community by reviving the local economy. This 'Japanese capitalism', and indigenous interpretations of democracy based on

[258] Yahata Chamber of Commerce and Industry, Y*ahata shōkōkaigijo zenshi*, p. 9.
[259] Ibid., p. 9.
[260] Ibid.
[261] Ibid.

deliberation and mutual aid, highlight that the Japanese people did not just copy American ideology, but rather proposed new ideas and reinterpreted historical social ideas and conventions throughout the Allied Occupation.

Similar concepts of democracy based on mutual aid were also expressed in the statutes of the West Japan Industry Club (*Nishi Nihon Kōgyō Kurabu*), which Hiroshi Yasukawa initiated with the support of executives from Yahata Iron and Steel (Yahata Steelworks) and sixty-six further companies in 1952. The aim of the West Japan Industry Club was to 'perform a movement of culture and to contribute to the public good, parallel to the development of the local industries'.[262] A further element of contribution to the local community would be performed through presenting the members' research that could be applied for the benefit of the general population (Art. 4). As both the Yahata Chamber of Commerce and Industry and the West Japan Industry Club were presided by Hiroshi Yasukawa, it is hardly surprising to find similar ideological elements of philanthropy in the statutes of both organisations. However, having Kitakyūshū's major companies both propose co-operation with ordinary citizens, with mutual aid as their major goal, is impressive and highlights the desire to increase public well-being.

Since the West Japan Industry Club's inauguration in October 1952, approximately 141 employees from sixty-eight companies met every month to discuss diverse issues including science and technology, but also politics, international co-operation and local history.[263] Rather than being solely a club of industrialists, the West Japan Industry Club provided a community for open-minded, often intellectual entrepreneurs to discuss progressive ideas amongst like-minded peers, as well as with international visitors and guest speakers. Instead of competing fiercely in overlapping market segments, Kitakyūshū's industries created a progressive union to support the economic development and standard of living in all five cities of Kitakyūshū by creating a community, with the aim of introducing a spirit of collaboration and mutual help.

The analysis of the rise of business-related associations has shown that ideas of 'just society' and mutual aid aspired towards co-operation. Rather than aiming at high profits, Kitakyūshū's companies hoped to advance the local community, region and national economy through co-operation in vertical and horizontal unions based on regions or branches. Most unions had a highly inclusive set-up, with members coming from a wide variety of companies. Thus, rather than being profit-oriented clubs based on competition, local industries co-operated to advance local development and to create strong bonds within the community, translating their economic power into concrete action for the local population.

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[262] West Japan Industry Club, *Gojūshūnen no ayumi* [50-years history] (Kitakyūshū, 2002), p. 19.
[263] West Japan Industry Club, 1953-1970, unpublished and un-catalogued archival materials.

IV.V Spreading 'democracy': Kitakyūshū's women's associations, 1945-1952

The end of the Second World War opened up immense new possibilities for citizens to participate in politics and to help shape civil society. Women in particular benefited from the social and political reforms, such as the equality of the sexes and universal suffrage, implemented during the first years of the Allied Occupation. Most reforms concerning women, such as the abolition of the patriarchal system, in which the father or husband had the final decision-making power over female family members, and the equality of men and women before the law, surpassed the expectations of many Japanese and foreign observers and were often more far-reaching than in the West.

Whilst the number of female politicians decreased in the 1950s and 1960s when compared with the first post-war elections in 1946, women were neither disinterested nor uninvolved in politics. It is important to understand that most women's focus had shifted to local civic movements and informal channels of political participation, for example in Parent-Teacher-Associations (PTA), local women's organisations, and consumer movements. Shortly after the end of the war, when most people were concerned with mere survival, women all over Japan assembled to organise themselves into formal and informal women's groups. By November 1947, the Ministry of Labour counted the impressive number of 4,568 official women's groups with around 4.7 million members in forty-four prefectures.[264] Many of these organisations had their roots in pre-war society, dating as far back as to the early Meiji era. The Fukuoka Prefecture Collaborative Women's Association, for example, dates back to 1886, and was re-established shortly after Japan's surrender.[265] Whilst the totalitarian, quasi-compulsory Greater Japan Women's Organisation *(Dai Nihon Fujinkai),* which had subsumed existing independent women's groups, as well as the national Country Loving Women's Organisation (*Aikokufujinkai*) and the Women's Organisation to Defend the Country (*Kokubō Fujinkai*) in 1942, was disbanded in June 1945, women independently re-established autonomous associations as early as in late 1945 and 1946. This immediate activism on the part of local women was partially possible due to

[264] 'Fujin' [Women], *Asahi Shimbun Nenkan* [Asahi Newspaper Almanac] (Tōkyō, 1948), p. 377.
[265] In Kitakyūshū, Kokura, Yahata and Wakamatsu had established women's associations by 1905, with several hundred members each. Committee for the Compilation of Women's History in Fukuoka Prefecture, *Shimbun ni miru fukuokaken josei no ayumi. Meiji / Taishohen* [Fukuoka prefecture's women's progress as seen in the newspapers] (Fukuoka, 1994); K. Matsushita, 'Fukuoka fujinkai no joshi kyouiku ni tsuite: fukuoka nichinichi shimbun wo chūshin ni' [On female education of the collaborative women's association of Fukuoka: centred around the Fukuoka Nichinichi Newspaper], *Fukuoka Prefecture Regional History Research*, 10 (1992), pp. 37-56; Kokura Kita Ward Collaborative Women's Association, *Gojūshūnen kinennshi* [Commemorative publication for the 50th anniversary] (Kitakyūshū, 1997).

the tight network from the totalitarian Greater Japan Women's Organisation during the war, which had mobilised the majority of Japan's females. Apart from the existing structures and membership bases that could be used, the civic and managerial skills women had acquired in wartime, such as organising local women's chapters, fundraising and public speaking, also proved useful in their efforts to rebuild independent women's societies shortly following World War II.

Revitalising existing organisational structures, networks and civic skills, as well as the sense of community and group consciousness that stemmed from wartime mobilisation, local female leaders quickly established new women's clubs or revived old chapters of pre-war women's associations. Already by November 1947, Fukuoka Prefecture boasted nearly 215,000 female members in sixty-one women's associations, making it the seventh largest membership base in Japan.[266] This number roughly equalled membership in Tōkyō (around 220,000), and was over four times bigger than that of Ōsaka (around 44,000), but only half of the neighbouring Yamaguchi prefecture, which topped the statistics with over 395,000 members.[267] The region-wide spread of local women's associations from Hokkaido to Kyūshū was furthermore complemented by several national organisations, some having formed as early as August 1945, such as the Post-war Committee on Women's Policies (*Sengo Fujin Taisaku Iinkai*). Several national women's associations followed in 1947 and 1948, despite GHQ's legal restrictions on establishing national organisations. Organisations such as the *Nihon Fujin Dōmei* (Alliance of Japanese Women; 4,000 members), the *Nihon Kirisutokyō Fujin Kyōfūkai* (Japanese Women's Temperance Union; 7,000 members), the *Fujin Minshū Kurabu* (Women's Democracy Club; 3,000 members), *Daigaku Fujinkyōkai* (University Women's Church; 3,000 members), *Zenkoku Tomonokai* (National Friends' Club; 4,500 members) and the *Kurisutokyō Joshi Seinenkai* (Club of Young Christian Women; 10,000 members), and since 1948 the overarching *Nihon Fujindantai Rengōkai* [*Fudanren*] (Federation of Japanese Women's Organisations), all heavily influenced politics.[268] By the end of the Allied Occupation in 1952, 6.5 million women (representing over one quarter of the female voting population) belonged to nearly at least one of 15,000 local women's associations.[269] Also in Kitakyūshū, pre-war women's associations quickly re-organised, and within few years evolved into fully democratised organisations with elected chairwomen and official regulations. By 1952, Kokura alone possessed over twenty-two women's

[266] 'Fujin', *Asahi Shimbun Nenkan*, p. 377
[267] Ibid.
[268] 'Fujin', *Asahi Shimbun Nenkan*, p. 377; K.S. Uno, 'Death of 'Good Wife, Wise Mother?', in A. Gordon (ed.), *Postwar Japan as History* (Berkeley, 1993), p. 293-322.
[269] M. Murase, *Co-operation over conflict: the women's movement and the state in postwar Japan* (New York & London, 2006).

associations with 23,000 members, whilst the much smaller Tobata, with 50,000 inhabitants in the early 1950s, had eight active women's associations.[270]

The sparse existence of documents on the activism of the Kitakyūshū's women's association in the early post-war years renders it hard to evaluate the women's motivation, and the democratic character underlying it. Primary documents from Kitakyūshū's Wakamatsu Women's Association, however, suggest a high engagement in open political action and humanitarian aid. On top of staging demonstrations such as the 'price down parade' in 1948 to demand lower energy and food prices, the women were highly involved in fundraising activities to save the local population from hunger, and to promote the practice mutual aid.[271] As soon as the charity Central Community Chest of Japan (*Akai Hane Kyōdō Bokin; Red Feather*) was established in 1947, Wakamatsu's women's associations started fundraising to support orphans and children in poverty, as well as social welfare organisations.[272] In the first national fundraising campaign, taking place from 25 November to 25 December 1947, people all over Japan donated nearly six hundred million yen, or eight yen per person (equalling eight blocks of tofu per person, or 60 to 120 billion yen in present day currency).[273] Such generosity in times for extreme struggle reveals that ideas of mutual aid were prevalent amongst all parts of the population, who contributed eighty percent of all donations through door-to-door fundraising. As contributions from the Central Community Chest of Japan amounted to twenty percent of Japan's national budget for social welfare in 1947, such gestures of mutual aid were highly important and a sign that due to the absence of a welfare state, citizens had to help each other. The Japanese people tried to establish a 'welfare society', based on grassroots engagement. Further acts of grassroots activism and mutual aid can also be found in the Wakamatsu's women's associations' establishment of a local Red Cross chapter (*sekijūji)* in the late 1940s, highlighting that existing local groups pro-actively helped to support new civic organisations.

The actions of mutual aid by local women's associations, both in Kitakyūshū and in other localities immediately after the end of World War II, coupled with the nationwide surge of civic activism that has been demonstrated through quantitative analysis, reveals that the anti-pollution activism by Nakabaru's women's association in Tobata was not an isolated case of civic engagement, but part of a wider movement promoting democracy and mutual aid. Whilst the

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[270] Kokura Kita Ward Collaborative Women's Association, *Gojūshūnen kinennshi*.
[271] Wakamatsu Ward Collaborative Women's Association Union, *Wakamatsu Fujinkai no Gojūnenshi* [Wakamatsu Women's Association's 50 year history] (Kitakyūshū, 1998).
[272] Ibid.
[273] Akaihane [Community Chest of Japan], 'Kyōdōbokin・ippan bokin shōwa nijūnendo – Heisei nijūyonendo' [Community Chest: general fundraising 1947-2012], http://www.akaihane.or.jp/about/history/pdf/toukei_rekinen_bokin02_131001.pdf

focus on pollution by Nakabaru's women's association was noteworthy as one of the first civic movements to address environmental problems, their civic activism did not arise in a vacuum. Rather, the association provides just one example of the magnitude of grassroots activism by independent civic groups supporting the local community, contributing to social progress, and deliberating on political ideas such as democracy.

Motivated by a desire to collaborate, several of Tobata's women's associations had reorganised informally by early 1946, driven by feelings of local solidarity and a desire to help the community. 'We women just had to do something for the local community and family', said the women's association's founding members of their motivation.[274] Their sense of belonging to an imagined local community, which had been strengthened due to war-time mobilisation and the emotional bonds the common suffering created, found expression in their civic activism from 1946 and their efforts to contribute to an equal, 'good' society. This desire found expression in diverse sessions in which the women discussed the best political and social outlook of Japan. The women's democratic consciousness was already visible in 1946, when women gathered for discussion sessions organised by chairwoman Tsuruda and vice-presidents Sakada and Yasukawa.[275] Under the title 'What is Democracy?', they discussed the philosophical meaning of democracy and the potential it brought for their personal lives, local community, and nation in 'each branch' of Tobata's women's association.[276] Such study sessions and open political debates amongst Tobata's females are a sign that Japanese women did not just do a U-turn, from allegedly 'blind' admiration for the emperor and the Japanese military during the Second World War to a 'blind' belief in democracy without understanding its implications, as was often suggested by the press and foreign observers in the late 1940s and 1950s. Instead, the example of Tobata's women's groups displays an eagerness to learn about democracy in order to make well-informed voting decisions, but also to restructure Japanese society according to democratic ideals.

Whilst the leaders of the women's organisations in 1946 were not democratically elected (the mayor's wife Yoshiko Tsuruda continued her pre-war leadership until 1948), the women displayed a clear interest in democratic ideals and practice, and openly engaged in philosophical debate on the best political system for their local community as well as for the nation.[277] Such

[274] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūnen no ayumi: kessei nijū shūnen no kinen* [History of 20 years: in memory of the 20th anniversary of the establishment] (Kitakyūshū, 1970).
[275] Ibid.
[276] Ibid.
[277] Whilst there is no clear evidence that the new chairwomen of Tobata's women's association was democratically elected in 1948, not only the change in personnel from the mayor's wife to a common member, but also elections in Yahata's women's association in 1947, could be interpreted as strong indicators that elections were held at Tobata's women's association in 1948. Kitakyūshū City Committee for Education, *Yahata no shakaikyōiku*. Unpublished, un-catalogued materials from the Kitakyūshū City Literary Archives.

open, direct democratic engagement is also visible in late 1946, when ordinary member Akiko Mōri participated in the Meeting to Discuss City Politics. According to Mōri's writing, this session was initiated and organised by the Youth Association of Kindred Spirits (*Seinendōshikai*), and held in Tobata's civic hall (*kōkaido)*.[278] It was remarkable not only for its function as an open forum for citizens to discuss politics, initiated within one year of Japan's surrender by a youth group, but also for its highly inclusive and democratic character. The panel consisted of representatives of both conservative and reformative parties, participants from the financial world including the head of the Chamber of Commerce and Industry, academics ('people of learning and experience'), and Akiko Mōri as female representative of the local women's association.[279] In a meeting that lasted for hours and ended up as 'citizen's rally' (*shimintaikai*) with elements of direct democracy, Tobata's population heatedly discussed their philosophical ideas of democracy, ending in the proposal to elect the mayor democratically by general vote. It deserves special attention that whilst Tobata's citizens actively promoted what is commonly referred to as 'democracy', such as open deliberation, suffrage, and civic participation, they did not blindly take over Western concepts of democracy. Instead, they deliberated about the best possible way of governing Tobata, expressing their own individual interpretations of a Japanese democracy. All this happened without state intervention and without GHQ. No former mayors or city councillors, nor representatives of the US occupation, were involved in the citizens' meeting.

This rally is an example of civic activism preceding state activism. Whilst the first local elections took place in 1947, Tobata's citizens had already demonstrated direct democracy in 1946, with women exchanging ideas on equal basis with their male counterparts and making suggestions on the subject of local politics. The fact that Akiko Mōri, a former elementary teacher who did not belong to traditional local power circles, was selected as one of less than ten panel-members on stage also displays equality, democracy, and the widespread existence of mutual respect and co-operation.

The women's independent efforts to spread democracy and aid amongst the local population were noticed by GHQ, who, in 1948, transferred a female member of staff, Charlotte Christ, from GHQ's Political Mission in Fukuoka to the 24th division in Tobata to support the women's efforts to increase female political participation.[280] Under the missionary's instruction,

[278] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Fujinkai no ayumi: sanjū shūnen kinenshi* [Development of the women's association: commemorative edition regarding the 30th anniversary] (Kitakyūshū, 1980); A. Mōri, 'Chiiki totomo ni' [Together with the region], In Kitakyūshū City Tobata Ward Collaborative Women's Association, *Fujinkai no ayumi: yonjūshūnen kinenshi* [Development of the women's association: commemorative edition regarding the 40th anniversary] (Kitakyūshū, 1990), p. 6-7.
[279] Ibid.
[280] Ibid.

the women's association was given democratic statutes and reborn as the Young Leaf Group (*Wakabakai*) on 27 May 1948.[281] Whilst this intervention from GHQ gave Tobata's women's association a democratic structure and look, it does not mean that the women's activism had been undemocratic in its motivation and practice. Rather, it highlights clashes between rigid Western interpretations of democracy, evaluating the women's group's façade and formalities rather than their activism, which had strong elements of equality, free speech and deliberation.

Despite the assumption in scholarship that women's organisations were financially, organisationally, and ideologically highly influenced or even co-opted by the state, the establishment and activism of Tobata's women's associations were autonomously initiated and executed by local women, without intellectual, financial or institutional assistance from GHQ or the local government in the 1940s.[282] Furthermore, Tobata's women's associations also funded the construction of their civic hall through membership fees and fundraising campaigns. In many respects, the women's associations of Tobata preceded initiatives by the local and national government, making them frontrunners rather than puppets co-opted by the state.

Claims about the passive nature of Japanese society, on which US forms of democracy were imposed upon from above, are certainly incorrect in the case of Kitakyūshū's women from 1945-1952. With their pro-active actions to establish women's societies, to participate in city politics, as well as to reduce pollution, they greatly shaped local politics in Kitakyūshū. Their actions thereby often preceded government policies: before legislation was proposed to improve social education in 1949, Tobata's women were actively pursuing activities aimed towards educating themselves. Similarly, the women also initiated activism against pollution in the late 1940s, years before the topic appeared on the government's agenda. It can be concluded that since 1945, Tobata's women were actively shaping civil society, trying to improve the local community politically and socially, according to a philosophy based on co-operation and mutual aid. Without neglecting their assumed responsibility to protect their families and to support their livelihood in various demonstrations, boycotts and acts of consumer activism, women in early post-war Tobata extended their role as domestic caretakers to democratic citizens that advanced and protected the local community.

IV. VI Spreading new ideals of mutual aid: Kitakyūshū's YMCA, 1945-1952

[281] Ibid.
[282] S. Pharr, *Political Women in Japan: the search for a place in political life* (Berkeley & London, 1981); Murase, *Co-operation over conflict*; Kage. *Civic engagement in postwar Japan;* Kitakyūshū City, *Kitakyūshūshi kindai/gendai: gyōsei/shakai* [Modern and Contemporary City History: Politics and Society] (Kitakyūshū, 1987).

Commerce and business unions, as well as women's associations, provide only a few examples of the manifold nature of grassroots activism, collaboration, and mutual aid. In-depth research clearly highlights that individuals from all walks of life not only displayed a high level of interest in democracy, but also discussed their own interpretations of it, thereby actively paving the way for a Japanese-style democracy based on collaboration. Their critical engagement with democracy, the constitution and civil rights is remarkable, and visible in numerous civic organisations. Despite the strong US influence, Japanese citizens autonomously started indigenous grassroots movements and created a pro-active civil society. Such critical engagement is also visible at the example of the YMCA in Moji, where engaged citizens, without involvement from GHQ or the global headquarters, started a People's University (*Shimin Daigaku*) in 1947 for common citizens to study a wide range of political and philosophical topics to be able to contribute to society. Inviting professors from renowned institutions such as Kyūshū University engaged citizens studied topics ranging from Human Rights to Psychology (Social Psychology), and from Education to Natural Sciences (General Knowledge on Physics), outside the traditional schooling system.[283] Being organised independently of GHQ, local government and the global YMCA, the lectures posed an open forum for interested citizens to learn about different interpretations of democracy, to express critical opinions, and to promote mutual aid. The first three sessions of the People's University in February and March 1947 focused on the new constitution that was about to be enacted, as well as on basic human rights. The class on 'The Spirit of the New Constitution' posed an opportunity for citizens to discuss the chances and responsibilities the new constitution entailed for each citizen, whilst the two classes on Basic Human Rights were set up as a forum for people to deliberate on how to use their new rights for the improvement of the local community. The great importance of these lectures can be drawn from the fact that distinguished Professor Matasuke Kawamura of Kyūshū University, a member of the *Matsumoto Iinkai* (Matsumoto Committee) who drafted the Japanese constitution in 1945, lectured three times in one month.

The People's University is not only an outstanding effort of citizens to increase understanding and debate social topics including politics and human rights, but also stands out as a grassroots effort to make society more equal and democratic, and to provide others with the tools for informed debate. With famous professors from Japan's former Imperial Universities such as Kawamura, who later became an attorney at Japan's first High Court, providing education for free to the local population, ideas of mutual aid were put into practice in social education. It

[283] Kitakyūshū YMCA, *Kitakyūshū YMCA no sōritsu rokujūnen ryakushi* [Brief sixty-year history of the Kitakyūshū YMCA since its establishment] (Kitakyūshū, 1976).

reveals how engaged citizens dismantled elitist education and broke down hierarchies to democratise the local population, and highlights the importance attached to a general discussion and people's understanding of different forms of democracy and human rights. With Kawamura, who belonged to the progressive (initially anarchist, and later extremely left-wing) student movement *Shinjinkai* during his student times at Tōkyō Imperial University, as the main lecturer, it becomes clear that even conservative Christian organisations such as the YMCA, which had supported Japan's totalitarian rule during the war, supported the most liberal and progressive open debates on politics in post-war Japan. It highlights how actively the Japanese engaged in their journey to become democratic citizens, and how traditional concepts of religion and political affiliation were dismantled to invite much larger discussions upon the ideal form of society, which also included co-operativist anarchist practices and mutual aid.[284]

Whilst little information on the exact content of Kawamura's lecture remains, the fact that the Kokura YMCA started offering Esperanto lessons to its members less than two months after its establishment in April 1948 is a sign that Kawamura's ideas of global peace and mutual aid had resonated amongst the YMCA's members and executives.[285] Furthermore, these classes did not take place at the YMCA office, but in the study room of the much more widely accessible and highly-frequented public city hospital of Kokura, which is a sign that the event initiators hoped to attract a large audience. Continuing and expanding ideas of mutual help and equality, even the city government of Yahata started to offer Esperanto classes in their civic hall in the mid-1950s, which highlights the progressive interpretations of a Japanese democracy put forward by the official local government.

Kitakyūshū's rapid re-establishment of women's associations, commerce unions and business associations can be explained by Kage's 'path dependency effects', which propose that civic activism is greater in areas where opportunities for political participation had already existed in the pre-war social context, and where participants had previous experience in social activism.[286] In other words, civic activism tended to be stronger in places where voluntary organisations had already flourished before WWII, and where organisational structures had at least partially survived. In particular, the women's associations and labour unions, which have existed since the Taisho (1912-1926) or early Showa (1926-1989) periods, were amongst the largest, most active organisations, closely followed by business co-operations. Realising that they themselves, as informed citizens, needed to be active to revive their neighbourhood as well as the

[284] See Konishi, *Anarchist modernity. Cooperatism and Japanese-Russian intellectual relations in Modern Japan* (Cambridge/MA, 2013).
[285] Kitakyūshū YMCA, *Kitakyūshū YMCA no sōritsu rokujūnen ryakushi*; Kitakyūshū City, *Kitakyūshūshi kindai/gendai.*
[286] R. Kage, *Civic engagement in postwar Japan*.

whole of Japan, small local groups initiated the principle of self-reliance and mutual aid, with the local community as frame of reference. Thousands of nameless Japanese citizens discussed alternative forms of society based on mutual aid within the community, thereby shaping the outlook of society between 1945 and 1952 and democratising Japan.

IV.VII Summary

A high degree of civil activism after a war is a highly unusual phenomenon, and contradicts several hypotheses such as the *victory/defeat hypothesis,* which proposes that the vanquished nation and its citizens should refrain from civil activism due to a 'complete loss of faith in the nation's collective potential'.[287] As a result, most scholars fail to explain the rise of post-war civil society because they assume that post-war society rejected the Japanese nation and 'Japanese-ness'. The key to understanding civic engagement shortly after WWII is to distinguish between the state and the nation, and to acknowledge that citizens supported the community of Japanese people (nation), whilst simultaneously disregarding the state institutions responsible for Japan's military defeat.[288] However, this dismissal did not manifest itself in conflict with the state, but in the realisation that citizens could no longer rely on the political concept of the state, but rather had to support the nation by strengthening local communities through mutual aid. Through deliberation in the newly-created or revived civic groups that proliferated between 1945 and 1952, citizens expressed their interpretation of democracy and formalised their own visions of a progressive future. Without dismissing Western concepts of democracy and modernity, Japanese individuals from all walks of life engaged in the task of adjusting the ideological concept of democracy to the Japanese context. 'Japanese democracy', as exemplified in the numerous civic associations such as women's societies, industry and commerce clubs, and religious groups like the YMCA in Kitakyūshū, was thereby not a part of a wider teleological concept or doctrine, but rather signified the practice of mutual aid and support for the community. In actions that removed social barriers and hierarchical structures, men and women contributed to the social well-being and economic development of the community. Instead of trying to reconstruct the Japanese nation, most citizens used the immediate community as a frame of reference for their actions, neglecting the dominant state-centric view of political elites and the GHQ. Citizens practiced concepts of democracy based on collaboration and mutual aid, hoping for a 'good society'

[287] Ibid, p. 10.
[288] The fact that people did not try to turn away from the nation and their 'Japanese-ness', is also indicated by the rise of civic circles promoting indigenous Japanese art, music and sports, which rose at the same pace as other civil groups after 1945.

without relation to Western interpretations of modernity. In an effort to build a 'good society', and to promote progressive modernity that was not simply a mere copy of Western ideals, ordinary women such as the members of Tobata's women's associations promoted a system of mutual help. This idea not only found expression under Allied Occupation, but also during the years of massive industrial pollution in Kitakyūshū (1950-1970). As this chapter has revealed, through the rise of civil society based on mutual aid, citizens in Tobata/Kitakyūshū, as well as around the Japanese archipelago, managed to overcome the hardship of the immediate post-war years and to develop into a 'Japanese democracy' based upon collaboration.

Over the following chapters it will be highlighted how local citizens, mainly women's associations acting independently of the state, tried to protect the community from the effects of the state's forced industrialisation and its health effects. Whilst these efforts, similar to those of the business associations and YMCAs, were parts of an indigenous grassroots efforts for the local community to implement a 'good society', it is important to note that none of these civic groups tried to sabotage the state. Rather, the groups took over functions the state could not fulfil in order to protect the local community.

CHAPTER V: TOBATA'S FEMALE ANTI-POLLUTION MOVEMENT: Industrial pollution and civil society's response, 1945-1963

V.I Reconstruction and pollution, 1945-1952

The Asahi Newspaper Almanac (*Asahi Shimbun Nenkan*) from 1951 introduces Yahata by explaining how 'in May 1950, about half of the city was reconstructed and from eighty-one factories, resolute smoke of recovery was raising into the sky'.[289] Although production at the Yahata Steelworks, after reaching a pre-war peak of 2.4 million tons of iron and steel output at the height of Japan's war efforts in 1941, came to a near-complete stand-still in 1945 due to the lack of resources and the destruction of the Steelworks' facilities in air raids, intense production resumed in 1946.[290] Despite initial reconstruction being slower than in other war-devastated countries in Europe in the immediate post-war years, the selection of iron and steel as 'priority production' areas in 1946 under Prime Minister Shigeru Yoshida accelerated production.[291] Already in 1949, the Asahi Newspaper's Almanac announced that Kitakyūshū's 'revitalisation as industrial megapolis was accomplished' due the 'renaissance of its large-scale factories, starting with the Yahata Steelworks'.[292] Despite the disbanding of Japan's 'most important government-owned enterprise', alongside other big industrial conglomerates and financial cliques (*zaibatsu*) under the Allied Occupation, the Steelworks managed to steadily increase production in the newly-formed, privatised company, Japan Iron and Steel (*Nittesu;* however, despite the new name, it will be referred to as Yahata Steelworks for simplicity and congruency).[293] By 1950, the Steelworks were producing 1.1 million tons of iron and steel per annum, equalling output levels of 1931. Fuelled by the high demands of heavy industries due to the Korean War that broke out in June 1950, and the designation of Kitakyūshū as a designated Mining and Manufacturing Zone in 1951 (followed by its selection as one of Japan's four main Industrial Zones in 1954), production more than doubled within three years, and nearly reached the pre-war high of 2.4 million tons in 1955.[294] Due to the high goals of mayor Dōryū Morita, former Head of Engineering at the Yahata Steelworks, who hoped to make Yahata a global industrial hub equalling Detroit or Pittsburgh in scale and recognition, the city government pushed for even further industrialisation. Constructing 'city-wide iron and concrete apartment buildings', Yahata was soon hailed as a 'modern city', and

[289] *Asahi Shimbun Nenkan,* 'Yahatashi' [Yahata City] (Tōkyō, 1951), p. 202.
[290] Un-categorised material from the archives of the Keikakuka [Planning Office] of Kitakyūshū City government.
[291] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*, p. 201.
[292] Asahi Shimbun (ed.), *Nenkan* [Almanac] (Tōkyō, 1949).
[293] G.D. Allinson, *Japan's postwar history* (Ithaca, 2004), p. 24.
[294] Kitakyūshū Yahata Shinyō Kinko, *Waga furusato Yahata* [Our home Yahata] (Kitakyūshū, 1995), p. 429 and 423.

received attention and fame from all around the country. At the same time, aerial, aquatic and noise pollution started to become a serious nuisance in Yahata and Tobata.[295]

Whilst pollution levels were not recorded before the 1950s, it can be assumed that production (and thus pollution) volume developed similarly in most of Kitakyūshū's heavy industries between the early 1940s, when around-the-clock production was reached in most factories, and the mid-1950s, when, spurred by Japan's re-industrialisation and high global demand for steel, pre-war heights were again reached. Accompanying the reconstruction, pollution had once more turned into a major nuisance by the late 1940s. However, more important than the actual degree of pollution was the sudden degradation of the environment, after Kitakyūshū's citizens had gotten accustomed to clean rivers and blue skies. Being aware of their newly-acquired democratic rights, local women in Tobata soon started to criticise the loss of a clean natural environment, and initiated protests against the culprits in 1950. The key to understanding the women's activism is both ideological, as they were driven by a desire to protect the local community, as well as psychological, as Tobata's citizens suffered from 'relative deprivation'. Feeling less well off than in previous years (1945-1947), when blue skies and wild fish had returned to Tobata, local women felt deprived of what they assumed to be their right to fresh air, and began to act.

V.II Anti-pollution activism in Kitakyūshū, 1945-1952

In the late 1940s and early 1950s, large numbers of Tobata's citizens, especially industrialists, workers and politicians, considered smoke a symbol of industrial development as it signified wealth and modernity. Smoke, for many, was a sign of prosperity and progress. Similar ideas can also be found in both the city anthems of Tobata and Yahata, which glorified smoke and the 'seven-coloured sky' as a symbol of growth. Glorifying the 'endless smoke overflowing the sky', from where the Ironworks were of 'spectacular sight', citizens of Yahata regarded the 'development of the city' as their mission, and the progress of it 'their duty'. In the anthem of Tobata, the oscillation of the ground, which was classified as part of a 'public nuisance' and was the most common complaint by Tobata's and Yahata's citizens vis-à-vis the local government in the 1950s and 1960s, is euphemistically described as the act of 'engines [which] shake the earth'. Figuratively speaking, industrialisation was 'shaking the earth', changing human life, and changing society.

[295] Ibid.

City anthem of Yahata

天の時を得　地の利を占めつ

Receiving heavenly time and taking advantage of the earth,

人の心も　和さえ加わわり

Human mind is being softened

たちまち開けし　文化の都

In a moment the city of culture opens

八幡八幡われらの八幡市

Yahata, Yahata, our Yahata city

市の発展は　われらの任務

The development of the city is our mission

焔炎々　波涛を焦がし

Blazing fire burning large waves

煙もうもう　天に漲る

Endless smoke overflowing the sky

天下の壮観　我が製鉄所

Seen from the sky, of spectacular sight is our Ironwork

八幡八幡われらの八幡市

Yahata, Yahata, our Yahata city

市の進展は　われらの責務

The progress of the city is our duty

高き理想を　帆柱山に

A high ideal for Mt. Hobashira

深き希望を　洞海湾に

A deep hope for Dōkai Bay

愛市の真心　神こそ知らめ

The true heart of our beloved city

八幡八幡われらの八幡市

Yahata, Yahata, our Yahata city
市の隆昌は　われらの歓喜
The prosperity of the city is our joy

City anthem of Tobata (2nd verse)
黒煙は　天に漲り
Black fumes overflowing the sky
エンジンは　大地にふるふ
Engines shake the earth
鉄腕の　高鳴るところ
A place where the iron arm is beating fast
ああ　戸畑
Oh Tobata
われが　誇り
Our glory

Whilst pollution began to seriously affect the physical and mental health of Kitakyūshū's population, especially of children and the elderly, the largest part of the population closed its eyes, accepting it as an unavoidable by-product of progress and a toll that had to be paid for Japan's economic growth, and in order to improve their detrimental living conditions. Furthermore, the majority of Yahata's and Tobata's inhabitants felt grateful towards its local industries on which the cities' growth had depended since 1900, for which they assumed an obligation to bear pollution.[296] For most people, pollution was not framed as a problem, and newspapers reported only sparsely on pollution issues. The analysis of the West Japan edition of Asahi Newspaper from 1945 to 1952 shows little critical coverage on pollution in Kitakyūshū, and across whole of Japan. This reveals a major consensus to accepting pollution, or even to welcome it as a sign of prosperity, which explains why protest and revolt against the culprits of air pollution was sporadic until 1952.

Tobata's women, in their presumed roles as protectors of the local community and their family members' health, publicly criticised air pollution from 1950 onwards. In 1949, one year after the official re-organisation of the Nakabaru Women's Association under a committee of nine

[296] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*, p. 39.

democratically elected females, local women in Tobata's Nakabaru ward, a residential area built in the immediate vicinity of major industrial production sites, started to discuss pollution. In both formal and informal settings, the women discussed the negative health effects of soot and smoke on their children, who suffered from respiratory diseases and started to develop asthma. This not only caused distress within the families, but medical treatment posed an economic burden. Treatment for asthma patients on a monthly average cost the substantial sum of 2,500 yen per person, which, according to Hayashi, could equal up to one third of a worker's monthly salary.[297] Further household expenditure included the numerous cleaning utensils such as soap and dry-cleaning bills, as extreme soot often made it impossible to dry clothes outside. 'Clothes in Tobata were whiter before washing than afterwards', so a joke from the late 1940s goes. Thus, whilst pollution caused health problems for children and the elderly, as well as distress and an economic burden for the family, it sometimes even inflicted a 'pollution neurosis' on women who had to wash and clean their tatami floors several times a day to prevent them from becoming completely black, a task that consumed a lot of their physical and mental strength.[298]

Thus, when life in Kitakyūshū had become stable in the late 1940s, Nakabaru's women, who had studied democracy and human rights in their women's association, discussed whether they possessed a basic right to clean air.[299] The majority of the women's associations' members agreed that their families' health and lives needed be protected, either by the government or through personal efforts. The women quickly named the Nakabaru Power Station of Nippon Electricity Generation and Transmission Company, which burned low-quality coal to generate power in the vicinity of the residential area of Nakabaru (see Fig. 37), as one of the main culprits, and started to discuss a strategy to approach the issue in 1950.[300] As several members were married to high executives at the Nakabaru Power Station, and feared that their husbands could be discriminated against at work, the women decided to use scientific evidence as justification for their actions.[301] In small study groups, they started long-term scientific investigations on the seriousness of soot, measuring the fallout in four different locations in Tobata by hanging out starched and unstarched white cloth in open-air locations for three months. Their experiment showed that geographical proximity to the Nakabaru Power Plant increased the stains up to a

[297] Data from Tobata's women's associations' survey in 1965. Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*; Hayashi, *Kore ga kōgai da,* p. 50.
[298] Hayashi, Yahata no kōgai; Kitakyūshū City Tobata Ward Collaborative Women's Association, *Give Us Our Blue Skies Back I*.
[299] Nakabaru Women's Association, *Gojūshūnen Nakabarufujinkai* [50 years of Nakabaru fujinkai] (Kitakyūshū, 1998).
[300] Ibid.
[301] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*, p. 199; Kitakyūshū Forum on Women, *Women and the environment*.

degree that starched white shirts hung nearby the power plant became irrevocably black.[302] Another study established a correlation between intense production noise and high fallout. In the women's understanding, these two examinations were proof of the chemical pollutants that existed in soot and smoke. With the scientific evidence from their three-months long investigation, Tobata's females had gained enough confidence to approach the city parliament about the situation and to ask the mayor to demand the Nakabaru Power Plant install dust collectors. Instead of directly approaching the polluting companies, they used the local government as mediator in order to generate less friction, and to win over the local administration. Whilst being a slow process of approaching individual members of the city council and the Board of Education in informal chats on the streets or in their offices to convince them of the necessity to curb pollution, Tobata's women succeeded. The records of the city council meetings prove that the local government finally took up the issue on 25 May 1951, in an extra-ordinary, closed session.[303] Soon thereafter, the mayor approached Nippon Electricity Generation and Transmission Company, which was in charge of the Nakabaru Power Plant, and demanded that the company management install dust collectors. After negotiations, in which the polluting company accepted their responsibility to protect the health of the local population, such equipment was purchased at a cost of nearly one hundred million yen, which equalled approximately ten percent of the yearly company profits (or seventy percent of annual taxes) of the Nakabaru Power Plant, and in 1951, dust collectors were installed at both the Nakabaru and Kokura Daimon Power Plant.[304]

[302] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Kōgai no ayumi: ushinawareta sora, ushinawareta umi* [History of Pollution: Lost Sky, Lost Sea] (Kitakyūshū, 2001).
[303] Tobata City Parliament Office, 'Shōwa nijūrokunen rinjikai: Tobatashi shikaigiroku' [Records of the city council] (Tobata, 25 May 1951). Materials from the Kitakyūshū City Archives (*bunshokan*). However, as detailed descriptions of the issue noted down on separate paper (*besshi*) went missing, there is little information on how the high soot and smoke levels were treated by the local city council.
[304] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*, p. 199. On the local taxes of the power plant, see Fukuoka Prefecture Tobata City History Group, *Tobata furusatoshi* [City History of Our Home Tobata] (Tobata, 1951), p. 71.

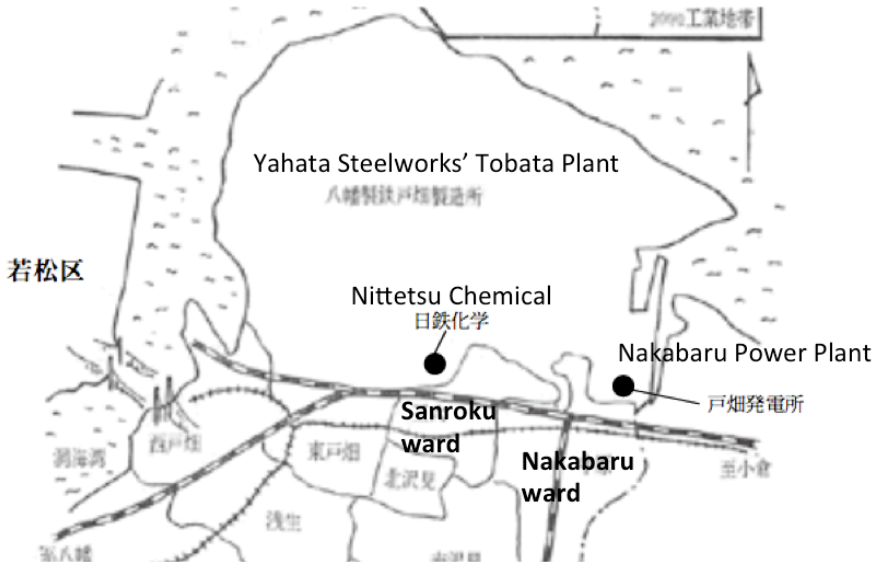

Fig. 37: Hand-written map of Tobata with English translations (from *Give Us Our Blue Skies Back* I, 1965). It shows the huge area – over half of Tobata City - Yahata Steelworks' Tobata Plant covered. The Nakabaru Ward was adjacent to the 'King of Tobata', the Electric Power Station, whilst the Sanroku Ward, where the women's association first petitioned against pollution from Carbon Black/Nittetsu Chemical, was in close proximity to the city's main chemical industries

The main rationale behind this concession on the part of the Nippon Electricity Generation and Transmission Company, which had no formal or legal obligation to curb emissions, was a sense of duty to comply with the mayor's (and the women's) demands, but also a responsibility to protect the health of Tobata's citizens. This is an outstanding sign of care for the local community, and shows that ideas of co-operation extended beyond civil society to the private sector.

The women's anti-pollution movement that started in 1950 is an example of independent, forward-looking activism by the women that preceded policies by the Japanese bureaucracy. The women's association did not restrict itself by social norms that often forbid women to protest and to act publicly. Whilst its members were aware that the economic wellbeing of the city, and thus also that of their own family and immediate neighbourhood, depended on the local industries, they did not perceive an obligation to remain silent. The studies about democracy and the direct execution of democratic practice in the women's association had shaped the mind-set of Tobata's women, and made them aware of the possibility to demand the protection of their families' health and the environment. Simultaneously, the studies nurtured ideas of mutual aid, altruistic aid of the community without state interference, and accountability of each citizen. The women's desire to contribute to society by improving and protecting the local community had been a prevalent

motor since the women's association's inauguration in 1946, and found immense expression in the women's anti-pollution activism that followed between 1951 and 1970.

As previously expressed, the main force for activism amongst the members of the Nakabaru's women's association in 1950 was the awareness that women had the right, but also the obligation, to protest against (actual or perceived) wrongdoings, coupled with a will to protect the local community. However, this still leaves us with the question as to why women had not initiated anti-pollution protests before World War II, when pollution was equally high, and when similar ideas about mutual help and the local community might have existed, too. Before answering this question, it is important to note that anti-pollution activism in Kitakyūshū did not start after WWII. In fact, the plans to construct the Steelworks were met with resistance amongst the local population of Yahata, who were unwilling to sacrifice arable land they had inherited from their ancestors for the construction of industrial facilities, despite the expected improvement of life and economic circumstances.[305] Roughly at the same time as when Shōzo Tanaka, Japan's first 'environmentalist', led a movement against mining pollution in Ashio (Tochigi Prefecture), villagers in Yahata at the opposite end of the Japanese archipelago mobilised protest against an all-encompassing state that tried to push Japan's industrialisation at the expense of the local population and the environment. Despite being only a tiny village, with 379 households in the late 19th century, Yahata's citizens seriously threatened the intense efforts of local industrialists and politicians to bring the prestigious national project, the Steelworks, to Yahata. Landowners initially refused to give up the majority of their farmland for little money, and fishers were hostile against the dredging of Dōkai Bay, which was a condition for the Steelworks to select Yahata. Whilst financial reasons were an important factor for this protest, environmentalist ideas of protecting farmland and leaving the bay in its natural form existed simultaneously. Only after the head of the village, Yoshitane Haga, appealed to the opponents, arguing that it was Yahata's obligation to sacrifice personal desires for the sake of the nation, local people stopped their programme of resistance. The villagers seemed to be convinced by the idea that 'without steel, our nation will fall behind in the world […]. Yahata Village was chosen from many candidates nationwide. Even if all the village people have to move to other places, it is our obligation to accept the land purchase by the national government.'[306] Arguing that Japan would drop out of the global race for supremacy, he asked the people of Yahata to bear the economic and environmental burden happily, for the sake of advancing the Japanese nation. Such arguments clearly highlight the dominant opinion of the late 19th century that personal interests had to be

[305] New Japan Steel Yahata Steelworks, *Seiki wo koete: Yahata Seitetsujou no hyakunen* [Crossing Centuries: 100 Years Yahata Iron and Steelworks] (Tōkyō, 2001), p. 22f.
[306] Cf. Hayashi/Kitakyūshū Forum on Women, *Women and the environment*, p. 5.

sacrificed for the nation, and that only people in official positions of power could influence politics.

Whilst the protests against the construction of the Steelworks around 1896 can be interpreted as a very early form of what Nobuko Iijima terms 'anti-development protest', revolt against polluting companies ('anti-pollution protest') occurred in neighbouring Kokura at roughly the same time.[307] According to the *City History of Kitakyūshū*, discontent with the local water quality, that was polluted from Kokura's numerous paper and cement companies, which had been releasing effluents into the Murasaki River since 1888, was expressed around the turn of the 20th century (1897-1906). The outcry throughout the population, however, was not addressed directly to the city government or companies as the political situation of the late 19th century provided little room for local citizens to protest, especially the economically disadvantaged ones living along the river.[308]

Air pollution from cement companies was first addressed in Moji, where in 1924 local citizens organised the United Hygiene Association (*rengo eisei kumiai*), which condemned the environmental situation. However, as their actions did not lead to direct results, it is assumed that Moji's cement companies were unreceptive to the demands of the citizens.[309] The name of the protest group, which used the terms *rengo* (union) and *kumiai* (association), is highly interesting as it implies a rather large number of participants as well as a high degree of organisation, and could also refer to the existence of several smaller hygiene associations.

It was not only groups in Kokura and Moji, but also Tobata's citizens who protested against existing pollution. The very same women's association of Nakabaru, which initiated anti-pollution activism in 1950, had already developed a track record of successful environmental protection. By 1937, when plans by the Nippon Electricity Generation and Transmission Company (*Nihon Hassōden*)[310] to build a power station alongside Tobata's famous pine-tree lined white sand coast became public, the local population was filled with a state of uproar. Ecologically-minded female teachers such as Akiko Mōri, who were upset that beautiful nature that had already been cherished in the Manyōshū poem collection from the 8th century would be

[307] Nobuko Iijima proposes the following 4 categories for anti-pollution or environmental protest: 1) anti-pollution victims' movements, (2) anti-development movements, (3) pollution-export protest movements, and (4) environmental protection and environment creation movements.
N. Iijima, *Kankyō shakaigaku no susume* [Recommendations for environmental sociology] (Tōkyō, 1995) and N. Iijima, *Kankyō shakaigaku* [Environmental Sociology] (Tōkyō, 1993).
[308] Kitakyūshū City, *Kitakyūshūshi kindai/gendai.*
[309] Ibid, p. 401f.
[310] Now Kyūshū Electric Power Company / *Kyūshū Denryoku (Kyūden).*

sacrificed to construct a landfill site for the power station, began to protest.[311] Whilst the women protested against construction in 1937, lobbying the mayor and the city council through informal channels, the power station was built, and the demands to compensate Tobata's children for the loss of their public beach by constructing a pool were simply ignored.[312] In 1937, when Japan was fighting against China whilst mobilising for a larger Pacific War, which demanded not only great sums of electric energy for its heavy industries but also complete submission of personal interest from its citizens, demands by a group of women were not heard in Japan. This demonstrates that the political situation before 1945 posed an almost insurmountable hurdle for finding legal solutions to environmental problems.

These four examples from 1896 to 1937 highlight that anti-pollution protest in Kitakyūshū is not purely a product of the post-war years, but instead had literally started at the outset of industrialisation in Kitakyūshū. Although numerous scholars propose a clear break between pre-war and post-war Japan by focusing predominantly on newly emerging ideas and behaviour after 1945, the case of Kitakyūshū highlights that such clear cuts are not always justifiable. Instead, continuity between pre- and post-war society existed in many aspects. In the case of Tobata, ideas of ecology and mutual aid were not the product of post-war society, but had existed for decades before Japan became a democracy, and later a modern society. Only with the change of the political system, which increased the opportunity for civic political participation, were these ideas allowed to prosper and be executed. However, despite overlapping elements amongst pre- and post-war protest, major differences in ideology and methods of protest existed. Whilst all movements before WWII were relatively unsuccessful, the activism of Nakabaru's women's association in 1950 triggered immediate improvements, both because of the general population's new civic rights and because of the women's strategy to provide scientific (and thus 'democratic') evidence. By conducting scientific studies and presenting the results to the local government, which then approached the major pollution culprit in the area, women used science as a major 'ally'. As they had learned in 1937 that mere petitions for benevolence addressed to local politicians would most likely not lead to desirable results, they called upon a more 'objective' science, which had gained popularity as democratic tool for development, to achieve their aims. Being aware of the rising popularity of science in Japanese society, and the high

[311] Tobata's beautiful coastline and beach not only featured in postcards and magazine articles from the 1920s and early 1930s, but its history of appraisal dates back to the 7th and 8th century, when Tobata's pine-lined coast was appraised in the 'Song of beautiful Love'. The lyrics can be found in Japan's oldest compilation of Japanese poetry from the Nara period, the Manyōshū [Collection of Ten Thousand Leaves] from the late 8th century. It reads:
「ほととぎす　とばたのうらに　しくなみの　しばしばきみを　みむよしむかも」; Kitakyūshūshi kyōkai, *Kitakyūshū omoide shashinkan,* p. 72.
[312] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*, p. 39.

influence it had on decision-makers who were convinced that Japan's defeat in the Second World War was mainly the result of Western superiority in science and technology, Tobata's women decided to use scientific evidence as justification for their actions, and a solid basis for their demands. In other words, local women, most of them housewives, invaded the 'male domain' of science, overturned old hierarchies, and used scientific evidence to support their environmentalist cause. Whilst science was intended to spur Japan's progress as industrialised country, the women used science as a tool to stop un-regulated industrialisation rather than to promote it, as the government had been intending.

Being grateful for the government's and industry's responsiveness and willingness to co-operate, and noticing soot levels decreasing after the Nakabaru Power plant installed participle filters in 1951, Nakabaru's women association dis-continued its efforts to curb atmospheric pollution until 1957. Whilst one account refers to attempts to increase the water quality of rivers in 1952 by the Nakabaru women's association, there is no clear evidence for continuous civic activism in regard to pollution until 1957. At this point rising sulphur oxide (SOx) emissions, against which the newly-installed particle filters were ineffective, greatly increased the people's suffering from pollution. In an effort to reduce pollution through civic activism and direct democracy, the executives of Nakabaru's women's association and the local government organised a 'Women Leaders Course' (*fujin shidōsha kōshūkai)* session, to which they invited mayor Shōgen Shiraki and the director of the city's Board of Education. In a panel discussion at the Tobata Central Community Hall, three executives of the women's association inquired and interviewed the two government representatives on the topic of pollution, and many of the eight hundred female participants in the audience engaged in heated discussions about possibilities for decreasing industrial exhausts.[313] Giving in to the women's firm demands, the city government voiced the hope to 'reflect the words of the women in their political decisions' by promising to improve health and hygiene standards, greening the city, as well as rapidly increasing the numbers of public parks.[314] As the women's association points out in their brochure, 'the soot and smoke issue was addressed by the local government immediately, which started soot and smoke measurements with deposit gauges'.[315]

[313] Whilst the *Women's Leaders Course* was intended to also cover the topics 'railway lines' and 'hospital construction', the greatest interest amongst the women was on industrial pollution and particle fallout, which shows the high topicality and mobilizing power of these issues.
Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūshūnen no ayumi.*
[314] Kitakyūshū City, *Kitakyūshū kōgai taisakushi* (Kitakyūshū, 1998).
[315] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūshūnen no ayumi.*

V.III Activism by Sanroku's women's association, 1960-1963

Although a considerable number of the aforementioned promises were later realised, they obviously failed to curb the increasing exhaust gases. At the latest by 1960, emissions from Carbon Black (Nittesu Chemical Corporation), which was built on the premises of Yahata Steelworks' Tobata plant, had become a serious concern for the population. Rising volumes of black soot and the strong odours from the pitch coke production, fuelled by rapid expansion since the mid-1950s, greatly disturbed the local population. Thus, in 1960, women in the Sanroku ward of Tobata started to voice their dissatisfaction with the state of the environment. The Sanroku district was one of the most heavily polluted areas not only in Kitakyūshū, but also in Japan. Unlike in other cities, Tobata's heavy industries were situated in close proximity to residential areas because they were built on reclaimed land. As Kitakyūshū is located in a bay area, the reclaimed land, Tobata's and Yahata's major industrial production hub was located in the middle of the city. When the wind did not blow industrial fumes directly towards the sea, pungent chemical odours and soot particles increasingly forced people to keep their windows closed, even in summer. By 1960, not only Yahata Steelworks, but also the majority of other companies had introduced 24-hour production, so that soot, smoke and SOx particles dominated the sky day and night. What is more, as most energy-intensive operations (which were often also the loudest) were executed at night when energy prices were cheaper, noise levels remained high during nighttime. These olfactory disturbances and noise pollution prevented many citizens of Sanroku from sleeping and inflicted serious mental health damage on them. Due to the proximity with companies such as the Tobata Works of Yahata Steelworks, the Sanroku district was home to numerous company dormitories, and a high number of the members of the women's associations had close ties with the Steelworks, as family members had found employment there. Nevertheless, by the late 1950s, Sanroku's women felt obliged to act, despite underlying feelings of guilt in protesting against the very same companies their husbands, fathers or sons worked for.

Inspired by the positive results regarding the petition by Nakabaru's women's association in the early 1950s, members of the women's association in neighbouring Sanroku started to conduct similar pollution studies around 1960. In summer of the same year, when pollution had reached new heights, they approached the neighbourhood self-governing council (*jichikai)* of Sanroku and asked them to collaborate in their fight against pollution.[316] With more man-power and the consciousness of having the support of the socially influential male-dominated

[316] Kitakyūshū City, *Kitakyūshūshi kōgai taisakushi: bunkaihe*n, p. 199.

neighbourhood association, Sanroku's women's association jointly filed a complaint against Nittetsu Chemical (now: Nippon Steel and Sumikin Chemical), a subsidiary of the Yahata Steelworks and one of Japan's major chemical companies. Sanroku's women's association confronted Nittetsu Chemical with their observation that the company was releasing unbearable levels of soot and smoke, as well as unpleasant odours from their pitch coke furnaces. However, unlike in many other anti-pollution movements of the 1960s, they refrained from demanding financial compensation, but instead requested Nittetsu Chemical to change their production to more environmental-friendly technologies. They furthermore petitioned the local government to act as their mediator, which Mayor Shiraki accepted, approaching both the local branch in Tobata as well as the Tōkyō headquarters in 1960 and 1961, together with representatives from the Sanroku Women's association, Sugako Nakasu and Kazue Nagahama.[317] With the mediation of the city government of Kitakyūshū and the prefectural government of Fukuoka, the case was solved in February 1963, when both parties agreed to the proposed improvement plan by Nittetsu Chemical. The agreement states the company's future attempts to

1.) Secure the continuous use of particle filters and gas extraction even in times of blackouts, by installing a back-up electric line
2.) Prevent gas leaks in old pitch coke furnaces
3.) Modernise all old pitch coke furnaces[318]

The amicable settlement was celebrated in Tobata's central civic hall, under the presence of representatives from the local government, prefectural government, Nittetsu Chemical, and civil society in the form of the women's association and the self-governing neighbourhood association. It was signed directly between civic representatives and company executives, and not by the local administration, which highlights what a remarkable role civic groups played.

The activism by Sanroku's women in 1960 deserves special attention for several reasons. First of all, it displays extensive co-operation and a shared spirit of mutual help amongst civil groups such as women's clubs and the neighbourhood association in times of distress. Second, it reveals that by 1960, even wives and mothers of workers in the polluting industries were willing to openly protest against the very companies upon which their economic wellbeing depended. Third, from a more socio-political point of view, it highlights that Sanroku's civil society could influence government policies, initiating new forms of citizens' participation in local administration. In 1960, when the women and the self-governing body filed their complaint against Nittetsu Chemical, demanding higher environmental standards, the Japanese law did not

[317] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Nijūshūnen no ayumi.*
[318] Kitakyūshū City, *Kitakyūshūshi kōgai taisakushi: bunkaihen,* p. 199.

provide any official basis for such action. Only over two years later, in December 1962 when the Japanese Diet passed the soot and smoke law (*baienseihō*), civic Pollution Control Agreements (PCA) with meditation by local or prefectural government were made a legal possibility. This change highlights the innovative character of Tobata's civic agreements in early 1960.[319] However not only the timing, but also the methods of the Pollution Control Agreement were unusual. Whilst the Soot and Smoke Law from 1962 envisaged a strong position for official government mediators, suggesting that such agreements should be carried out and signed between the local administration and polluting industries, the citizens of Sanroku acted independently.[320] Signing both the petition and the resolution proposed by Nittetsu Chemical, Japan's first Pollution Control Agreement was signed between civil society representatives and industry. This novelty is also reflected in contemporary newspaper coverage, which highlights the extra-ordinary participation of civil society, for which the conclusion of the PCA was celebrated in a ceremony in the citizens' hall and not the government offices. The numerous PCAs between civil society and local industry that followed illustrate the prefectural and local government's will to co-operate and to promote civic political participation.

The participants of Sanroku's women's association not only engaged in legal action to prevent pollution through Pollution Control Agreements, but also had the role of 'Civic Soot and Smoke Inspectors', a model Sanroku's women's association implemented in 1961 in collaboration with the neighbourhood association. Sanroku's women were in charge of inspecting pollution levels, especially the highly visible white and black smoke, and when the exhaust fumes were extraordinarily high, their position required them to inform the city government and to demand the investigation of its cause with the polluting companies. Many women directly phoned the local management of Nittetsu Chemical's Carbon Black factory to inform them about the exceptionally high level of exhaust gases. The women's tendency to inform the government rather than to complain directly to the company allows for several conclusions to be drawn. First, the women had become increasingly aware of their rights in a democracy, embracing their

[319] Whilst academics have proposed that the first PCA was signed in Yokohama between the city government and a thermal power plant in 1964, the case of Tobata reveals that it were in fact Sanroku's women's association and the local neighbourhood association that signed Japan's first PCA on 13 December 1963. Further PCAs between civil society and local companies such as Onoda Cement Company (Yahata Plant), Nihon Cement (Moji plant) and Yahata Chemical Industry (Tobata Plant) were signed and settlements were achieved in 1965, 1966 and 1968 with the mediation of local and regional government. Y. Matsuno, 'Pollution control agreements in Japan: Conditions for their success', *Environmental Economics and Policy Studies*, 8 (2007), pp. 103-141.

[320] Pollution Control Agreements (PCAs) are regarded a major characteristic of Japanese anti-pollution movements and are rather extraordinary in international comparison. They were introduced by the national government in December 1962 as a last resort for local administration to curb exorbitant pollution levels in semi-legal gentlemen's agreements with local companies. Whilst a PCA was designed as a preliminary method for local government, which had no regulative and punitive power in industrial policies, to demand industry to curb pollution, Tobata's women quickly re-interpreted the law, requesting the local government to function as their mediator whilst remaining the signatories of the contract.

prerogative to demand local politicians to represent their opinions and to act on their behalf. Second, the actions display the collaborative nature of the associations. Whilst openly criticising the local industries, they informed the government about their issue in order to find a solution acceptable to all three interested parties.

At a time when political power struggles between the LDP and progressive parties were executed in the name of the environment in several mayoral and prefectural elections, this co-operative spirit deserves special mention. Tobata's non-confrontational activism, and the amicable settlement without financial compensation claims, is surprising. Such results highlight how simple housewives, in perceived apolitical women's associations, acted as legislators and initiated collaboration amongst government, industry and academia.

CHAPTER VI: WOMEN UNITED: Hearing others and making themselves heard

V.I Tobata Ward Collaborative Women's Association and their *Give Us Our Blue Skies Back* pollution research, 1963-1969

As a result of the ever-increasing ramifications of pollution in the 1960s, the women of the Sanroku ward in Tobata realised that fighting against the effects of pollution on human health and the environment was too enormous a task for one single women's association to undertake. Aware of the importance of strength through numbers, the thirteen neighbourhood associations decided to continue the anti-pollution drive of the Sanroku's women's association as a joint, concerted effort. In 1963, Tobata's thirteen women's associations joined forces in their fight against pollution, establishing the Anti-Pollution Committee of the Collaborative Women's Association of Tobata Ward (*Tobataku fujinkai kyōgikai kōgai taisaku iinkai*). Between 1963 and 1969, over 6,500 local housewives studied pollution, and disseminated their results in five minutely detailed research reports entitled *Give Us Our Blue Skies Back*, published between 1965 and 1969. At a total of over eight hundred pages, the women provided a description o4f their scientific investigations, experiments, surveys, analysis of newspaper coverage on pollution in Japan and overseas. This rigorous analysis was interspersed with expert interviews conducted by the women, which was directed towards evaluating local, national and international policies to combat pollution. The results of their efforts were not only presented at the yearly New Life Exhibition (*shinseikatsuten*) organised by the city government of Kitakyūshū, but also distributed amongst the local population, the government, and the business community.

The women's pioneering efforts to uncover the extent of pollution effects on human health, especially by establishing the presence of a correlation between emissions and the rising absence rates of children from elementary schools in Tobata between 1961 and 1966, received widespread attention. In addition to the positive reception amongst the local population, the national media started to report on the women's activism in 1963, especially on television and radio. One example of the unprecedented interest and support by public media corporations is the nationwide airing of the 29-minute documentary *Give Us Our Blue Skies Back* (*Aozora ga hoshii*), an independent production by Tobata's women's association, on national NHK television in 1965.

Whilst numerous members of the women's association's research team had neither attended high school nor university, the *Give Us Our Blue Skies Back* movement's large-scale studies on both the political and scientific aspects of pollution science is impressive, displaying a

comprehensive, expert knowledge on the topic. Its scientific value is at least comparable to professional academic studies in the early- and mid-1960s. The women's work contributed to a better scientific understanding of the dangers of emissions on humans, animals and the ecosystem. The women's fundamental, long-term research project contributed to an increased interest amongst the local population in the implications of pollution. The local housewives managed to highlight the ramifications of Kitakyūshū's air pollution upon human health. At a time when research on pollution-induced diseases amongst government-sponsored institutions and most national research centres was virtually absent, as highlighted in Chapter VI, Tobata's research and analysis provided a better understanding of pollution's dangerous nature not only amongst other citizens, but also amongst government, industry and even within academic circles. Comparing the pollution levels recorded by the local government between 1961 and 1966 with the sick leaves both at six elementary schools in Tobata (which they collected from the class books and health registers), and at one school in an unpolluted countryside town Tawaramachi (Tagawa-gun), Tobata's women were able to demonstrate a close correlation between pollution levels and children's absence from school in their community.[321] Even when accounting for the fact that during the winter months more students get sick due to colds and influenza, the unexpected spike in absences in January and February has to be attributed to Tobata's smog and air pollution, which was by far highest in the first two months of the year. In detailed graphs for all schools, Tobata's collaborative women's association was able to show a statistically significant correlation, which also hints at causality between pollution levels and low attendance at school due to sickness. The nearly parallel development of pollution levels and the number of absences throughput the six-year period of investigation also surprised established academics and politicians, as such a strong correlation had not yet been established by the local administration. Further evidence for the highly adverse health effects of pollution on the human body was provided in the women's analysis of the most common causes for death. Whilst cancer was the second largest cause of death not only in Tobata, but also in other Japanese cities in the first half of the 1960s, the women's graphs comparing the occurrence of human deaths caused by asthma and other lung-related disease each month between 1961 and 1965, with the level of pollution, resulted in a positive correlation.[322] It highlights that during the winter months, which marked the 'smog season' with high levels of pollution, more people died of asthma and lung defects, including lung cancer, than during the less-polluted summer months. Formulating the hypothesis that sulphur oxide in the air, whose level was rapidly increasing in the 1960s, triggered severe

[321] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii I*, p.16ff; Kitakyūshū City Tobata Ward Collaborative Women's Association*, Aozora ga hoshii II*, p. 149f.
[322] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii I*, p.16ff.

lung diseases and could be carcinogenic, the women hoped to provide proof that Kitakyūshū's sulphur emissions could be lethal. Whilst the women, as amateurs, were unable to engage in independent research on this topic, they conducted a literature analysis. As the novelty of such research meant that studies on proving a causality between sulphur emission and lung cancer amongst local residents were sparse, Tobata's housewives provided examples from national and international research organisations that demonstrated how sulphur oxide particles could lead to 'black lungs'. In intricate detail, the women described the research designs and results of medical studies undertaken by medical doctors at Kyūshū University, which revealed that in rats, sulphur particles were highly toxic and could destroy the animal's lungs.[323] Arguing that human lungs might face a similar fate if exposed to sulphur pollution for several years, Tobata's women's associations provided strong visual materials for a correlation between rising diseases in Tobata and pollution, and sensitised the local population to the potentially lethal effects of airborne emissions.

However, instead of framing pollution solely within the context of human health problems, by the mid-1960s Tobata's female activists had moved ahead of the contemporary anthropocentric pollution discourse and analysed emissions from an increasingly modern view of environmental destruction, incorporating the imbalance of the ecosystem and adaptations to a changing environment by plants and animals. The women's associations furthermore interspersed the environmental debate with issues of human rights, mutual aid, and good governance, which highlights their high political awareness and their ability to transform rigorous empirical research into relevant socio-political debates. Claiming their right to fresh air, which had been established in an obscure law from 1961 that pollution was a human rights violation, the women argued that they, as citizens, had a right for their opinion to be represented by their elected officials, and for their health to be protected. Highlighting the need for collaboration amongst all areas of society, including citizens, politics, industry and academics, Tobata's women acted by example, trying to implement a 'just society' based on mutual aid, where all involved parties had equal rights and obligations.

The 1950s, as well as in the early- and mid-1960s, were a period when the concrete effects of pollution on the human body and the environment were not yet clearly established in mainstream Japanese science. Pollution was still overwhelmingly regarded as a symbol of economic growth, and the women's efforts to generate new scientific knowledge and to educate and empower the local population about the dangers of pollution and their political rights in a democratic society stood as one of the most progressive, innovative, and comprehensive long-

[323] Ibid, p. 17f.

term efforts to protect the environment and human health in the 1960s in Japan, as this thesis highlights.

Although science was predominantly the sole preserve of male university professors and researchers in the 1950s and 1960s, housewives in the periphery approached pollution from a scientific angle, thereby democratising scientific research and using it for the benefit of society. Tobata's women's association created a new understanding not only of pollution, but also of democratic rights, modernisation and civic engagement, and incubated new political ideas into the local population. Coupled with the women's aspirations to spread mutual aid and to create advocacy coalitions to promote pollution-reduction, they groups undoubtedly shaped local society in the mid- and late-1960s.

VI.II Methods of 'protest' and models of political influence: advocacy coalitions

In their longstanding struggle to control pollution, Tobata's women tried to convince the local population, administration and industry of the danger of emissions and effluents, especially those emanating from industrial sources. Their concrete policy aims were threefold. First, to persuade all parties, industry, government and local population, to implement changes such as legal amendments. Second, to advocate new energy sources for residential, commercial and industrial consumption. Third, to promote investment in environmentally-friendly technologies. This process of petitioning people of a high social status, and gaining support through formal and informal networks, is best described within the model of *advocacy coalitions.* The advocacy coalition framework (ACF), initially introduced by Paul Sabatier and Hank Jenkins-Smith in the 1980s, is applied in social movement and technological innovation studies to describe how ideas and new technologies are adopted by merging diverse social actors into an advocacy group that supports the new movement.[324] The role of advocacy coalitions in creating social recognition for movement actors, as well as a general consensus about the technology's benefit for society, is thereby considered a prerequisite for success.[325]

Sabatier's concept of advocacy coalitions, which highlights the role of support groups, is highly relevant to the study of anti-pollution movements in Kitakyūshū, as it is a prime example of how deliberation amongst different social actors, including the numerous women's associations and local government, can result in concerted action. Through deliberation and

[324] Sabatier/Jenkins-Smith (eds.), *Policy change and learning: an advocacy coalition approach*; P.A. Sabatier (ed.), *Theories of the policy process* (Boulder, 1999). P.A. Sabatier and C.M. Weible, 'The advocacy coalition framework: innovations and clarifications', in P.A. Sabatier (ed.), *Theories of the policy process* (Boulder, 1999), pp. 189-217.
[325] Sabatier/Weible, 'The advocacy coalition framework: innovations and clarifications'.

negotiations, as expressed in Sabatier's model, policies that were initially only proposed by a minority of marginalised actors outside of political power circles were implemented in Kitakyūshū. Through research, petitioning and awareness campaigns by Tobata's women's associations, advocacy coalitions were formed, which then succeeded in placing the issue onto the government's agenda.

Whilst Sabatier and Smith-Jenkin's model is largely able to explain the rise of environmental movements in the United States, the success of Tobata's anti-pollution movements by the local women's associations can only partially be explained by it, as the women's activism followed a different pattern with different actors, displaying diverging steps and modes of activation of resources and support. Most pertinently, compared with the advocacy coalitions described by Sabatier and his collaborators, the actors in Kitakyūshū were heterogeneous. Instead of searching for allies amongst similar-minded groups such as neighbourhood associations, Parent-Teacher-Associations (PTA), or students' unions, as was the case for most AFCs, the 6,500 members of Tobata's Collaborative Women's Association directly approached authority figures such as scientific researchers or local parliamentarians, urging them to support their cause. This vertical infiltration of, and co-operation with, power elites, rather than looking for horizontal alliances, was an efficient means of counteracting the inertia of the local government and industry. This tactic finally brought about benefits through the institutional configuration of political structures. This 'activation of', and co-operation with, power elites, including professors, government officials and the local mayor, also sets Tobata's women apart from other anti-pollution movements in Japan, which predominantly expanded horizontally, creating a larger support base without vertical bonds with power elites. Being aware of their subordinate, 'weak' nature as women, and their lack of political and scientific credibility, Tobata's females quickly searched for support from established scientists, initiating collaboration with conventional power circles. Especially due to co-operation with established professors, the women not only received credibility, but gained access to resources that helped them succeed in their scientific studies, on which the subsequent success of their movement was largely grounded. As explained in the author's model of successful civic activism introduced in the following, this vertical expansion and the collaboration with influential local figures sets the movement apart from many other contemporary local anti-pollution movements in Japan, which largely remained unsuccessful due to a lack of political support from established power circles.

The reasons for the unexpected success of Tobata's collaborative women's association will be analysed in the following chapter, based on the author's model of civic activism that borrows elements from Sabatier et al.'s advocacy coalition framework, whilst including new

elements on which large part of the women's success in Tobata were grounded. This includes the creation of a 'receptive audience' and 'supportive masses', which heightened the bargaining power of the female actors whilst increasing the willingness of politicians to support the women, and to represent them politically.

As highlighted, the major reason for the women's success in influencing political decision-makers without the cumbersome process of forming horizontal coalitions of allies was that they created what I term 'receptive audiences' and 'supportive masses'. In other words, there was an increasing consensus amongst the local population regarding the necessity of the women's activism. Through personalised networks, as well as through face-to-face interactions with the majority of Tobata's inhabitants of around 100,000, the women's associations were able to raise awareness of the adverse impact of pollution amongst the majority of the local population. This eventually triggered a paradigm shift, heightening both democratic and environmental awareness. At a time when pollution and Kitakyūshū's 'seven-coloured sky' was either still largely hailed as symbol of prosperity or unquestionably accepted as prerequisite for economic growth, the women's actions stimulated debate, thereby *setting the agenda*. The continuous actions of local women's associations since 1950, but especially in the mid-1960s, helped frame pollution as a problem, and whilst initially the local population was either indifferent or even hostile to the women's anti-pollution activism, public opinion gradually changed. By giving agency to the local population, when asking 27,000 households in 1966 to share their experience with pollution and then presenting their survey data to Tobata's mayor and fellow citizens, the women's association could develop the *receptive audiences* into a large array of active or passive supporters (*supportive masses*). Acknowledging the need for pollution control, and seeing their interests reflected by the women's associations, the local population started to display a largely favourable attitude towards the women's actions from the mid-1960s, and turned into both passive and active supporters of the movement. Such approval from the local population significantly increased the political power of the women's associations, and their leverage in negotiations with the local government and companies. This helped the women's association form advocacy coalitions with university professors in the natural and medical sciences, as well as with the local administration, which proved to be the key for the success of the women's actions.

The actions of Tobata's Collaborative Women's Association display the different stages of gaining social and political power, which eventually led to the success of the movement. The previously explained steps that made Tobata's women's organisation Kitakyūshū's most

successful civic force in pollution control in the 1960s are schematically outlined in the following diagram.

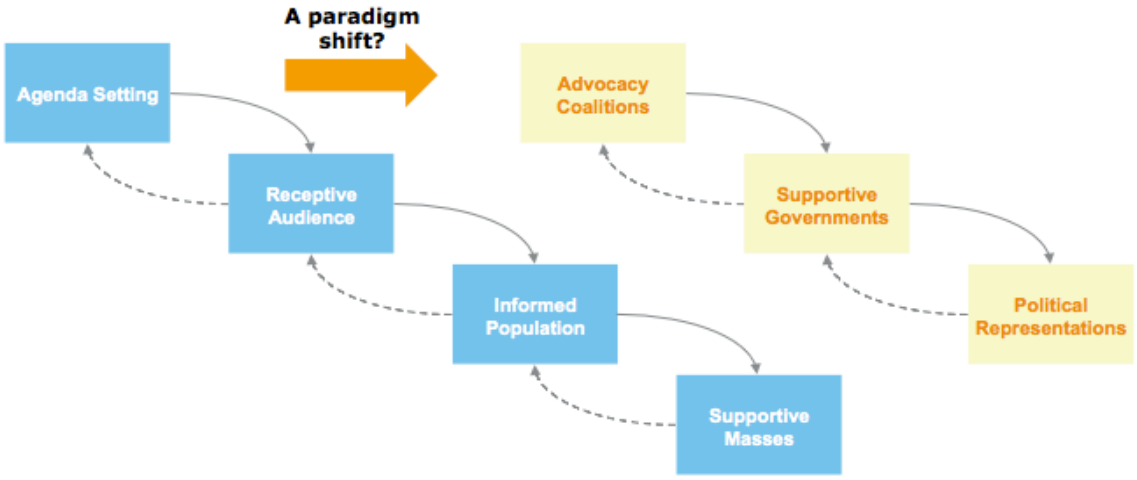

Fig. 38: Steps to success for grassroots movements, leading to political representation
(Author's model based on *Advocacy Coalition Framework* theory)

One of the key factors of the women's activism was their pro-active nature, their collaborative spirit and their balanced view on pollution. This did not involve simply blaming industry, but involved a wider appeal for change amongst all citizens, including corporations and government, with the aim of controlling pollution. Instead of merely expressing criticism, Tobata's women proposed potential solutions and collaborated with people in power positions to achieve their goals. Their strategy proved successful in creating both horizontal and vertical support, which led to a spirit of collaboration, instead of one of scapegoating and exclusion. Whilst initially the local government implemented steps to silence the women, their persistency and well-grounded criticism based on scientific research, as presented on over eight hundred pages in their five *Give Us Our Blue Skies Back* reports, led the movements to become one of the few successful anti-pollution movements of the 1960s.

VI.III *Give Us Our Blue Skies Back* I-V research reports (1965-1969)

Overview

Amongst the most outstanding achievements of Tobata's collaborative women's association are the five volumes of research reports, which the women painstakingly produced between 1965 and 1969. Each up to two hundred pages long, the yearly compilations of the women's research were printed into at least eight-hundred copies each year, before being

disseminated amongst industrialists, politicians, and interested locals over five years. These reports pose a unique historical source, as they not only include original research on the occurrence and chemical composition of air pollution in Kitakyūshū, but also provide pollution statistics of other localities in Japan. The work also incorporates contemporary newspaper articles, local surveys on the population's view on pollution, and opinion papers by academics and political leaders. These subjective accounts were interspersed with objective, mainstream, academic papers, meteorological investigations, biological research on the effects of Kitakyūshū's pollution on flora and fauna, medical investigations on asthma in schoolchildren and the elderly, and a critical examination of national and international policies regarding pollution control. The research reports therefore not only provide primary data, but more importantly, highlight the discourse on pollution in the mid-1960s in and beyond Kitakyūshū, amongst local citizens as well as academics. Whilst four of the five research reports, stored in the archives of Kitakyūshū's City government, had been closed to both the public and academics for nearly fifty years, they were finally disclosed in 2015, rendering them a novel source for understanding the motivation and reasons for the success of the women's associations' anti-pollution activism the 1960s. In the following chapter, the content and discourse of each of the five *Give Us Our Blue Skies Back* research papers will be analysed.

***Give Us Our Blue Skies Back* I (1965)**

The first research report compiled by the Pollution Research Group of the Collaborative Women's Association of Tobata in 1965 continued the previous pollution research of the women's associations of Nakabaru (1950-1951) and Sanroku (1960-1963), whilst expanding its scope and focus. The women not only provided long-term studies on particulate and sulphur pollution in nine locations in Tobata, analysing changes since the mid-1950s, but also outlined the chemical and meteorological reasons for the occurrence of pollution and smog. More importantly, however, is their discussion of pollution as a cause of both mental and physical illness. Arguing that pollution not only inflicted mental damage in the form of 'pollution depression', the women also established a correlation between atmospheric particles and the fatality rate from respiratory and heart diseases (see Fig. XXXIII). In detailed graphs, the women furthermore revealed that high levels of sulphur oxide in the air increase the absence rates of elementary school pupils in Tobata between 1961 and 1965. Such a clear correlation provided a strong indication that Kitakyūshū's atmospheric pollution caused asthma and possibly other diseases, which industry and the government had previously denied or downplayed.

***Give Us Our Blue Skies Back* II (1966)**

Whilst the first paper centred on health issues regarding pollution, research in 1966 focused on the local population and its views on pollution. It stands out not only for its length, which reached 213 pages, but also due to its comprehensive nature. On top of analysing the results of the women's association's qualitative survey of 13,000 households in Tobata, and investigating the influence of pollution on everyday life, *Give us our Blue Skies Back* II systematically researches broader national and international developments undertaken in an effort to curb pollution. In 1966, when environmental problems were largely discussed in a local context, Tobata's women already argued for a more comprehensive, trans-national approach to combating pollution, framing pollution as a scientific, industrial, political and sociological problem. The *Give Us Our Blue Skies Back II* report catalogues a plethora of sources and arguments, and includes data and independent research upon a wide variety of topics, including pollution's impact on human physical and mental health, flora and fauna, meteorological explanations for the exceptionally high occurrence of pollution in some parts of Tobata, discussion of pollution from a historical angle and international perspective, and investigations on possible political solutions.

***Give Us Our Blue Skies Back* III (1967)**

Having provided a comprehensive framework of the social ramification of, and opinions upon, pollution in 1966, *Give us Our Blue Skies Back* III, published in 1967 attempted to analyse previous efforts by local government and industry to combat pollution. Based on a survey letter delivered by hand to local companies, Tobata's women's association not only provided a detailed overview of declared spending on pollution prevention amongst local companies and the government, but also presented written statements by local CEOs, and Kitakyūshū's mayor regarding their concrete plans on how to reduce emissions. By publishing these letters and declarations, Tobata's women not only increased public awareness about pollution prevention attempts by corporations, but also provided a structured framework for the population to request corporate compliance.

***Give Us Our Blue Skies Back* IV (1968)**

The fourth volume pursues a different approach, shifting focus towards health education in an attempt to protect the human body from pollution. The volume analyses the nutritional value of Japanese and Western food, arguing that housewives can protect their families through well-informed food choices. The detailed discussions around the benefits and roles of

vitamins in human health through a biochemical lens highlighted a new approach to use science to make lifestyle choices. The volume encouraged a shift towards individual responsibility for health, away from the sphere of corporations and public policy. In summary, the edition made great efforts to promote self-help and mutual aid for the community through improving nutritious eating and healthy lifestyle choices.

***Give Us Our Blue Skies Back* V (1969)**

The first half of the final volume from 1969 provides a summary of the women's associations' efforts since the 1950s, highlighting the relatively high media attention Tobata's females received. The latter half of the report introduces concrete examples of adverse effects of pollution on the population of Tobata, and revealing a massive economic cost for Tobata's population. Publishing the clinical observations and medical history of nearly two hundred local residents, detailing the extent and duration of their symptoms, Tobata's women provided clear evidence about the medical effects of pollution. This edition demonstrates that all parts of the population suffered from pollution-related diseases.

The *Give Us Our Blue Skies Back* research reports stand out for their comprehensive nature, the depth of their studies, as well as their innovative ideas, including trans-national pollution control. Whilst not blaming individual companies or the local government, the suffering of the population was made clear. The women succeeded in creating an informed audience able to evaluate policies regarding pollution independently. By publishing promises made by Tobata's companies and administration regarding pollution control, they created a system of accountability. In addition to promoting mutual aid and self-help, which is a common element throughout the whole five volumes, the women's associations elicited informed debate and a spirit of collaboration, finally engendering a new approach to local environmental protection in the late 1960s.

The reports deserve praise for their solid scientific basis, especially after the women had gained support in their studies from renowned academics including Professor Yoshikatsu Nose (Yamaguchi Medical University), and Professor Sadao Iki (Kyūshū Institute of Technology), amongst others. The women not only included highly innovative primary research into their publications, but also provided detailed analysis of their results. Whilst the major aim of the female activism was to protect the immediate community, their focus extended beyond locality, hoping to learn from, and contribute to, the global understanding of pollution and the epidemiology of the diseases it caused and exacerbated. Such a trans-national view highlights an

early understanding that whilst most pollution was locally created, a global response to it was necessary. The research reports provide an impressive proof that new knowledge regarding pollution was not only created at universities and in governmental laboratories, but also in simple countryside houses, where the women could measure air pollution levels. Although it went largely unnoticed by the larger population, Tobata's females contributed to educating the local population about the scientific effects of pollution, and actively shaped both civil society and local politics.

To provide a better understanding of the ideology and rationale behind the women's activism, the following discussion provides a discourse analysis of the largest, most comprehensive and ground-breaking research report, *Give Us Our Blue Skies Back* II (1966). This report helps us understand how the women's self-conception could influence their activism, and why simple housewives in the periphery could gain national media attention and support by local politicians.

VI.IV Tobata's women's ideology and strategy, as seen in *Give Us Our Blue Skies Back* II (1966)

Structure

The second volume of the *Give Us Our Blue Skies Back* series is the women's most comprehensive account of pollution. It includes an expert interview by Professor Yoshikatsu Nose, Japanese delegate to the WHO, primary research and media reports, as well as a detailed analysis of existing academic pollution research. It is divided into seven chapters, some with emotional, forthright titles including 'I can't bear it anymore – an urgent appeal by citizens' (Chapter I), 'Although I'm not sad I'm crying – Kitakyūshū's pollution that advances to the lungs' (Chapter III), and 'When can I breathe fresh air again?' (Chapter IV). The structure of the volume is clear. It commences with an overview of the population's account of pollution. Over forty-seven pages, the results of 13,000 surveyed households in Tobata are presented. comprising of original statements made by hundreds of citizens. The women's questionnaire results reveal a public with a keen sense of the effects of pollution, and critical of inefficient government attempts to tackle the issue. Furthermore, the numerous voices of encouragement and gratefulness for the project demonstrates a high level of support for the *Give Us Our Blue Skies Back* movement amongst the local population, and a great deal of respect for the female activists. The informed responses reveal how well informed Tobata's citizens were on the subject of pollution issues by 1966. The second chapter, written by Professor Nose from Yamaguchi Medical University, who

subsequently became a mentor of Tobata's Collaborative Women's Association after the women had approached him to ask for his support and instruction, frames pollution within an academic context, before providing a discussion of potential solutions. The remaining five chapters are authored by Tobata's Collaborative Women's Association, and showcase their hard work not in measuring and researching pollution, but also in discussing pollution from a sociological and political viewpoint. Chapter III commences with the history of the industrial development of Kitakyūshū before providing scientific explanations for the emergence of smog and atmospheric pollution. The chapter also includes descriptions of their research design and discusses the women's general findings on pollution levels around the city, between the mid-1950s and 1966. Chapter IV, in contrast, turns away from the scientific side of pollution and provides a discussion of its political implications. The chapter mainly describes the civic activities of the women's associations as residents' movements from the late 1940s, explaining their motivation to unite and to become a full-fledged citizens' movement (*shimin undō*). The women critically assess the law regarding pollution, revealing that current legislation was purely aimed at regulating the pollution of large-sized corporations, thereby neglecting the significant impact of small and medium-sized business on pollution. They furthermore point out the many loopholes the laws contained. Chapter V provides a perspective on pollution around the globe, giving examples on the fatal consequences of severe pollution in both the U.S. and Europe, including a case-study of London's 'Great Smog' incident of 1952, which took the lives of over four thousand citizens. Providing historical evidence that mankind had been suffering from pollution around the world, and arguing that Japanese cities such as Yokkaichi and Kitakyūshū could face similar challenges to London, Pittsburgh, and other toxic environments, Tobata's women campaigned for immediate action from both government and business. Highlighting evidence of high levels of carcinogenic tar in Kitakyūshū's air, the women conclude the chapter by stating that 'we cannot close our eyes before the damage pollution is doing to us in our daily lives', and warning that '[t]omorrow is too late for anti-pollution policies'.[326]

The main idea behind the women's arguments in Chapter VI is that environmental protection has both social and financial benefits, also for the polluters themselves. Using Ube City as an example, the women's association provides evidence that voluntary emission reductions in the cement industries rendered the production process more efficient, thereby making cleaner production financially rewarding. Whilst Ube City had already provided support for local companies in the 1950s in the form of environmentally-friendly efforts, Tobata's women

[326] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II,* p. 170.

complained that the city government of Kitakyūshū was too vague in its approach. The governmental failed to demonstrate a clear vision in ameliorating the causes and effects of pollution, and did not clarify their over-arching position upon the extent of the problem. The final chapter discusses the remaining unanswered issues. Arguing that the proposals made by the government have been full of contradictions, the women present their own ideas on how to realise a true 'city of green and sunlight'.

The titles and subtitles of the women's work convey a clear message, and display the women's stance that immediate action was an absolutely necessity in order to save the community from the effects of pollution. Despite their sharp message, the women refrained from using strong or abusive language towards their opposition. Instead, they sought to co-operate to find the best solution for the local community as a whole. Their holistic approach of analysing the effects of pollution from different disciplines, including meteorology, biochemistry, medicine, biology, sociology, political science, economics and philosophy, demonstrates that Tobata's women aimed for a complete understanding of the issue, so that they could share their knowledge with the local population. This would allow the government and industry to make decisions based upon informed deliberation. The women argued that incorporating cutting-edge standards of environmental protection would have an economic benefit to offset the cost of enacting pollution control. This forward-thinking argument demonstrated an underlying, pragmatic view on pollution, which was in many respects very progressive for the 1960s.

Historical relevance of the source

One of the strengths of the reports as a historical source comes from the several hundred comments the women's association selected from their large-scale pollution questionnaire survey of 13,000 households, which they present in Chapter I. Being able to read the thoughts of many of Tobata's citizens is a unique opportunity for investigating how the population in one region of Japan understood pollution in the mid-1960s. Considering that the women's association distributed the questionnaires from door to door, there is less over-representation of male opinion, contrary to the official government statistics. On top of providing a largely representative sample of a whole city, with a sample size that surpasses any other micro-surveys on pollution in Japan in the 1960s, the women's study stands out as unique historical source due to the frankness of the respondents, who expressed both personal hopes and desperation for a pollution-free society. Unlike letters to the editor in a newspaper, the comments were not initially written for publication, and thus less 'staged', without self-imposed censorship.

In the following analysis, some of the most important aspects of the women's argumentation and discourse will be considered.

Discourse analysis

a.) Chapter I: Gender roles & democratic consciousness

Tobata's housewives, by entering the public sphere and organising a civil movement against pollution, unquestionably surpassed the boundaries of conventional womanhood in the 1960s. Such a transgression of gender roles leads to questions regarding the women's self-perception, their motivation, and their strategy for gaining support.

From the very beginning, the female authors of the research paper set clear signs that Tobata's collaborative women's association was not simply a social club for women to refine themselves, but a society in which local women could act in their capacity as educated, reflexive citizens. In the first line of the foreword, the women declared that they possessed a 'great right' (*ōkina kenri*) to a 'healthy and bright life'. Such a direct opening statement, using legal terminology and invoking a 'right' (*kenri*) to clean air, shows that the women saw themselves as occupying a position of strength, and could demand that both the local and national government act. Their language also depicts this determination. Instead of submissive phrasal constructions such as '*-itadakimasu/itadakitai desu*' ('we would be grateful to be granted'), the head of the women's association states that she 'wants the government and city parliament to act and to make industry move', by using the much more demanding expression '*moraimashō*' ['let's get…'].[327]

Similar transgressions, or even subversions, of female gender stereotypes can also be found in the title of Chapter I. 'I can't bear it anymore – an urgent appeal by citizens' is a clear statement that Tobata's women's associations would no longer restrict themselves to their prior social ideal of being silent, submissive, and enduring ladies.[328] By subverting one of the highest virtues in Japanese society, self-denial (*gaman*), the women openly transgressed social ideals and cultural norms. Openly announcing that 'it has been enough', Tobata's women subverted the social ideal of female passivity, and displayed a critical view on Japanese traditions that inhibit female political participation. The women, many of whom had only received basic formal education, reversed social roles by making policy proposals to a predominantly male public elite by proposing to promote Kitakyūshū to the status of a city of 'green and sunlight', as well as by formulating Pollution Control Agreements with local companies. These actions clearly demonstrate women as active players in the future of their community.

[327]Tobata Kitakyūshū City Women's Association, *Aozora ga hoshii II,* foreword (no pagination)
[328] Ibid., chapter I.

Another sign that their womanhood only marginally influenced the female actors is the absence of any reference to themselves as 'women'. Instead, when describing their activism, the women used the term 'citizens' (*shimin*) rather than 'women' (*fujin*). Using the highly politicised term 'citizens', which had not entered into the general lexicon by the 1960s, when the term 'residents' (*jūmin*) still prevailed, is a signal of their democratic consciousness. It also implies that Tobata's women's organisation hoped to spread their research results outside of their immediate community, giving their movement a meaning that surpassed local boundaries. Thus, whilst the women's immediate aim was to protect their families and locality, they simultaneously strived for a sphere of influence surpassing the local level.

b.) Chapter II: Scientific character and validity of the women's studies

The second chapter of the report consists of a six-page discussion of pollution by Yoshikatsu Nose, Professor of Yamaguchi Medical University and member of the WHO's Specialist Committee on Air Pollution. Whilst the content itself provides a significant contribution to the understanding of environmental science in the 1960s, its significance for this dissertation lies in the approval of Tobata's women's scientific research and their civic activism by Nose.

Nose starts his essay by saluting the women's 'outstanding results' (*rippana seiseki*), noting that whilst the women's activism is exactly what should be expected from civic groups, it is immensely hard to put into practice.[329] He confirms that their methodology and approach is scientifically viable, bestowing credibility upon their research. 'The scientific research by Tobata's Women's Associations is based on outstanding research methods, which are assessed by international researchers as equal and endorsed by them'.[330] He also highlights the significance of the women's finding of a positive correlation between smoke exhaust and the occurrence of oto-rhino-laryngological disorders, urging the women to 'trust' their results and to use them to start a wide-reaching civic movement.[331] Nose thereby highlights the need for co-operation amongst all elements of society, stating that 'it is important that citizens of local communities pool their strengths and cooperate'.[332] Such co-operation should unite 'the mayor, companies, academics and citizens' to create a 'feeling of solidarity which will eventually lead to results'.[333] Whilst

[329] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*, p. 54.
[330] Ibid. Whilst the women started their research independently and only received support from Prof. Nose from 1965 onwards, it can be assumed that he was largely involved in determining and guaranteeing the scientific quality of the women's research methods. As similar research, e.g. on correlation between morbidity/mortality and air pollution levels had also been conducted by Nose in the 1950s, it is very likely that Nose guided the women's research.
[331] Ibid.
[332] Ibid.
[333] Ibid.

fervently proposing civic engagement, Nose also argues that as the entire workload could not be borne by Tobata's women, but that the city administration and its official Kitakyūshū City Pollution Prevention Policy Commission must act as well.

This support by an established medical doctor and expert on pollution substantially increased the credibility and political leverage of the women's associations. In particular, his endorsement of the quality of their research helped the women establish themselves as a scientifically-driven group of female researchers who contributed not only to the improvement of the local community and local administration, but also to scientific progress.

c.) Chapter III: Pollution and change in climatic conditions as both local and global issue

In Chapter III, the women's association discussed the development of Kitakyūshū as an industrial city since 1901, and presented their research on the effects of pollution. Over fifty-two pages, they provide a critical review of government policies, making practical proposals on how to improve current practices of pollution control. Their main argument, presented in the beginning of Chapter III, is that industrial development had received 'priority over everything' (*subeteni yūsen sareta sangyō no hatten*). 'Due to regional development, chemical industries expanded and disseminated public nuisance as by-product, inconsiderate of the life of the local population, greedily coveting profits.'[334] The strong, explicit language, such as 'greedily coveting profits' (*yokubukaku rieki wo musaboru*), with which Chapter III.1.1 ends mirrors the anger of Tobata's women at the capitalist aspirations of local companies, who acted without respect for the local population and environment.[335] Similar themes were expressed later in the chapter, for example in the announcement that 'the times when the seven-coloured sky was a source of pride are over'.[336] Whilst not directly referring to the anti-pollution protests around Shozō Tanaka in the Ashio Copper Mine case in the early 20th century, the language Tobata's women adopted reminds the reader of the accusations against capitalism brought forward by the Ashio Copper Mine riots in 1907.

To understand the origins of local pollution, due to which 'quality of citizens' life [had reached] extremely low levels' (*shimin no seikatsu kankyō ha saitei de aru*), Tobata's women analysed the historical development of pollution in the hope of finding a solution. Their main argument regarding the unacceptable condition of the environment in Tobata is that residential

[334] Ibid., p. 57.
[335] Ibid.
[336] Ibid, p. 74.

areas and industrial zones overlapped, standing side by side due to space constraints.[337] In addition to eroding the quality of life, this proximity to heavy industries and chemical smog led to a dramatic increase in the number of patients, according to the women.[338]

Framing the problem, the women start their description of the current state of pollution with a historical outline of industrial production and pollution in Kitakyūshū, highlighting that energy consumption had sky-rocketed after the war, with petroleum use, which generated SOx emissions, doubling between 1959 and 1964.[339] Highlighting that the lower grade petroleum used in Japan emitted 30 to 50 percent more particles than high-quality fuel oil (*jūyu*) did in Europe or the US, the women explained the cause of pollution in Japan.[340] It deserves special mention that Tobata's women not only discussed industrial pollution, but also investigated emissions from households and passenger vehicles, highlighting the plurality of blame for pollution.[341] Analysing examples from Tōkyō, Nagoya, Sapporo and Kobe, where everyday human activity certainly contributed to atmospheric pollution, Tobata's women asked for collaboration between industry, politics and civil society to reduce emissions.[342]

Not limiting their studies to simple measurements and descriptions of the phenomenon, but also investigating the effects of pollution, Tobata's women displayed a deep understanding of meteorological changes due to pollution. Their experiments suggest that unlike in most other places, where air temperatures decrease by 0.98 degrees Celsius for every one hundred meters in height, air in Kitakyūshū city gets hotter with increasing distance from the ground. This 'inversion layer' (*gyakutensō*) is depicted in five detailed, hand-written graphs on atmospheric pressure and air temperature, which demonstrated the phenomena of looping, coning, fanning, lofting and fumigation of polluted air. The women highlighted that pollution does not spread equally, but that the circulation, and thus the concentration, of air pollution depends on atmospheric pressure. Using their data, they proposed that the smog in Kitakyūshū was most probably due to this inversion layer in summer, as similar effects were also seen in Ōsaka and Tōkyō, for which a minute time series graph was provided.[343] Using photographic evidence from abroad, the women demonstrated that smog in Japan's major cities such as Tōkyō, Yokohama, Nagoya, Yokkaichi and Kitakyūshū, is both denser and more widely spread than in other global metropolises. Discussing the seriousness of Kitakyūshū's pollution from a trans-national

[337] Ibid., p. 65
[338] Ibid.
[339] Ibid, p. 66.
[340] Ibid, p. 68.
[341] Ibid, p. 70.
[342] Ibid.
[343] Ibid, p. 73.

perspective shows that Kitakyūshū's women not only focused on their immediate neighbourhood, but also tried to put the local development into historical and comparative context to highlight its seriousness.

It is, however, not only the global view on pollution research that was progressive. Framing pollution as a danger to human life *and* nature, and discussing the effects of pollution on climate change, was unexpected and bold. Based on Nose's classification of pollution, Tobata's women's association designed a chart on the inter-relation of the human lifestyle (energy use, production, amongst others) and climate (wind, rain, temperature), specifically in relation to levels of pollution. The graph provides evidence that whilst natural conditions such as wind speed, wind direction, and precipitation can influence the occurrence of exhaust particles, such a relationship is reciprocal. This supports the foregoing argument that pollution leads to irregularities in climate. In other words, the women proposed that pollution leads to climate change, both on a long-term and short-term basis. Such an idea of the mutual interaction of climate conditions and pollution was highly progressive for the 1960s, and reveals a deep understanding of the issue decades before 'man-made climate change' had become a buzzword in the 1990s and early twenty-first century.

As the analysis highlighted, the depth and breadth with which Tobata's women's association discussed the issue of pollution deserves praise. The women approached pollution from several angles, trying to understand the complicated chemical and meteorological processes behind it. Whilst the women analysed the topic in scientific manner, producing new reliable data at a level comparable to standard academic practice and knowledge at that time, they managed to include philosophical discussions on the reciprocal influence of nature on mankind and vice-versa. Chapter III stands out for the multitude of detailed graphs the women produced, greatly contributing to the understanding of pollution science at that time, and making the topic approachable for the common population.

d.) Chapter IV: Human rights & democratic consciousness

Chapter IV describes the motivation of Tobata's women for starting a civil movement, outlining the women's efforts and concrete results in improving air quality in Tobata from 1950 to 1965. Under the title 'When will we be able to breathe fresh air again?', the women legitimise their initial protest by pointing out that 'it has become obvious that industry has been destroying the citizens' existence', invoking their 'right to live' as justification.[344] The strong word 'destruction' (*hakai*), as well as the explicit mention of 'citizens' existence/livelihood'

[344] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*, p. 6f.

(*shiminseikatsu*), instead of the more common expression 'livelihood' (*seikatsu*) or 'livelihood of residents', highlights the women's strong determination and determination to be seen as a democratic civil movement. Their high awareness of human rights is reflected in their debate on the right to live, arguing that Kitakyūshū's citizens possessed a right to clean air and a government that guaranteed its provision. Whilst the legal situation in the 1960s did not hold companies liable for negative externalities of their actions, such as emissions, the women formed their own theory of corporate responsibility, asking companies to refrain from infringing on human livelihood and nature. In essence, Tobata's women's association proposed the introduction of the polluter-pays principle (PPP) years before it was discussed and then legally established in the early 1970s in Japan.

Chapter IV exemplifies the high level of democratic consciousness amongst Tobata's women, who established environmental protection as a human right and asked for polluter-pays mechanisms. Some of their proposals were put into practice through Pollution Agreements with Tobata's major industries from 1962.

e.) Chapter V: Ecosystems, human rights & environmental economics

Continuing the transnational perspective of Chapter IV, Chapter V discusses pollution and its long history from a national and international point of view, portraying how European and US cities managed to combat pollution. The women's work highlighted the danger of air pollution at the examples of the 1952 London smog, in which four thousand people died, and a similar event in 1962, which claimed seven hundred lives. Smog is depicted as 'killer' (*satsujin smoggu* = killer smog), and the women ask whether there is a guarantee that similar developments could not happen in Japan.[345]

The chapter makes ample use of scientific research from across Japan, discussing the latest academic findings on the impact of air pollution on nature, such as pollution-related plant mutations, researched by the Department of Horticulture at Chiba University. Other topics discussed include the resilience of plants such as grains, tomatoes, soy beans and aubergines against high particulate matter in the air, based on findings from Kyoto University, as well as the reasons for *waldsterben*, the death of forest trees as a result of pollution.[346] In their analysis of pollution-related changes in the natural environment and plants' adaptation to it, Tobata's women's associations evaluated the latest published research from renowned universities, as well as conference papers such as those presented at the National Conference on Air Pollution held in

[345] Ibid., p. 134.
[346] Ibid., p. 141ff.

October 1965 in Tōkyō. On top of their detailed summary of the latest, and some of Japan's earliest, research findings on that topic, Tobata's women's associations started their own investigations into changes in the ecosystem in Kitakyūshū. Assessing the mutations of 104 local tree and grass species in detailed fieldwork, they proposed that plants have different rates of resilience, described as little, medium and high.[347] The classification of adaptive capacities of the local flora and fauna reveals that most grasses and many tree species were severely impacted by Kitakyūshū's pollution, and that even within few decades, these plants displayed some genetic modifications in response to pollution. Complementing their own empirical studies on changes in the local ecosystem, Tobata's women also based their assessment on reports by local residents, who reported that vegetables had died over night and that the few trees that still bloom usually lose their blossoms quickly due to the high SOx content in the air.[348] This ecological framing of pollution, indicating the possibility of the collapse of the ecosystem, shows that Tobata's women were not only concerned about the health and lifestyle of their immediate vicinity, but that they also worried about the wider impacts of pollution on society and nature from a long-term perspective.

Although the major driving force for the women's activism was their desire to protect the health of their children and the elderly, environmental awareness was a further motivation. Whilst it is generally believed that the few Japanese anti-pollution movements that existed in the 1950s and 1960s were motivated by financial compensation, as well as desire to protect personal wealth and well-being movements or the Four Big Pollution Cases etc.), the case of Tobata's women clearly reveals an altruistic motivation to protect the environment from pollution.

Whilst Tobata's women largely based their arguments on the claim for justice and human rights in Chapter IV, arguing that common goods should be preserved, rather than used by a powerful minority, they also invoked environmental economics, trying to justify environmental protection from an economic, pragmatic point of view. As previously mentioned, before environmental economics were established as an academic sub-discipline in Japan, Tobata's female activists proposed financial benefits and economic rationale in their arguments supporting the installation of pollution filters. Framing environmental-friendly production mechanisms not as a financial burden but as economic gain, they women shifted the narrative of pollution reduction from altruism to rationalism. Tobata's women were one of the first and few political actors to advocate the possibility of reconciling progress with environmental protection, and by proclaiming the co-existence of ecologic and economic benefits, coupled with social,

[347] Ibid, p. 139f.
[348] Ibid, p. 140ff.

psychological and health improvements, they contributed to advancing the debate on pollution control. This strategy of trying to convince local industries with economic rather than simply sociological and legal arguments shows the flexibility of the women to adjust their line of argument. It also displays the women's long-term thinking and their comprehensive approach to the topic.

Beyond discussing pollution from the view of environmental economics, Tobata's women introduce another economic concept, namely negative externalities and the polluter-pays principle, thereby providing policy recommendations. Their main proposition was that in exchange for the favourable financial treatment major local companies had received in terms of tax breaks and land for development at highly subsidised prices, the city government should institute and hold large companies accountable for not achieving pollution standards.[349] Just like each citizen is responsible for the garbage he or she produces and cannot leave it to the community to solve, no company should be able to pollute common goods in a democracy, the women argued regarding social and economic justice. Their demands to price negative externalities are based on their understanding of justice, arguing that common good have to be treated with respect, and in the case of failure to do so, the culprit had to be made economically and legally liable. The direct reference to 'in a democracy', mentioning the public good of civil society in their research reports, clearly shows the high democratic awareness of Tobata's women, who, in a holistic approach, tried to propose solutions based on economic theory. By doing this, they hoped to remove the root cause of pollution, namely the lack of account for negative externalities in the production process and the pricing of industrial goods.

f.) Chapter VII: Pollution and democratic accountability

Instead of providing a summary, the final and shortest chapter is an appellation to the government to act and to impose concrete anti-pollution measures rather than just surveying the situation. Tobata's women thereby invoke their rights as citizens, and demand the accountability of their democratically elected representatives in the city government. Continuing their argumentation on human rights and fresh air, the women cite the complete Article 25 of the Japanese Constitution, which proposes a right to good health, and which guarantees the state's efforts to provide social welfare and hygienic living conditions for all citizens. Article 25 stands as such, in a box that visually sets it apart from the text to emphasis its importance, without further interpretation. However, it is closely related to the women's previous discussion of human rights and democracy. The women's association ends its research with a heart-felt appeal to the

[349] Ibid.

local population to validate the commitment to democratic values of their local representatives in the city government, and to demand their support on the issue of pollution control. The philosophical discussion on democracy and democratic politics ends with the conclusion that all parts of society, including the city council, local administration, industry, and Tobata's citizens, must work together to combat pollution. Co-operation and self-sacrifice are also reflected in the women's justification of their actions, which were for 'their husbands who they love, and their cute children'.[350]

Chapter VII provides an insight into the political ideas of the female authors of *Give Us Our Blue Skies Back* II. It is a showcase of political argumentation amongst the local population, and reveals that Tobata's women possessed a balanced, progressive view on pollution. Arguing that it is not only big business, but also private households and small shops that pollute the air, the women show a great sense of responsibility in solving the problem. It shows that the women were not only aware of their universal rights, but that they also implied a universal obligation of society to keep the environment clean.

Evaluation of scientific viability and motivation

The two hundred pages of well-informed debate on the effects of pollution, from a medical, ecological, meteorological, political, economical, psychological, social and legal perspective, coupled with innovative primary research on the medical and ecological consequences of pollution, are amongst the most comprehensive, progressive writings on pollution in the mid-1960s. The quality of the reports stems from the thorough analysis of existing research on pollution in the natural sciences, which, despite the scarcity of existing primary research, was presented concisely and comprehensively, using data from within Japan and abroad. This analysis was expertly interspersed with critical assessment of discussions on pollution in the social sciences. The major contribution to the novelty and unique nature of their studies, however, comes from their own primary research. The numerous experiments on air pollution not only established a high correlation between the effects of pollution and geographical proximity to major companies, but also showed how wind direction, wind speed, air pressure, precipitation, cloud formation and seasonal weather changes influence the occurrence of serious pollution-induced diseases such as asthma. Throughout their report, the methodology of the women supplements and supersedes established academic research, for instance through the use of control groups, for instance in the case were children's sick leave in Tobata was compared with those of counterparts in the less-polluted nearby countryside village Tawaramachi.

[350] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii III, p. 4.*

Whilst the adverse health effects of pollution started to be discussed in several scholarly works in the 1960s, the *Give Us Our Blue Skies Back* reports by Tobata's women stand out for their comprehensiveness. This includes their use of adults, children and animals as research subjects. Similarly impressive was their depth of research, large sample size (examining over 6,000 women in Tobata and Kokura, and sampling all schools in Tobata's ten wards), the comparative nature of the studies, the existence of reference groups, and the focus on long-term effects (by evaluating sick leaves over five years from 1961 to 1965). The studies find few contemporary equals that have a similarly large comparative, long-term focus, and that provide both a comprehensive analysis of statistical data from the mid-1960s and large-scale quantitative and qualitative experiments. Establishing a correlation between levels of pollution and the occurrence of human disease in Tobata, and demonstrating the adverse short- and long-term effects of pollution on child health, as well as on cancer rates in women in their city, the housewife activists made a significant contribution to medical sciences in the 1960s.

The women's comparative study on elementary school absence rates in Tobata and the nearby countryside village of Tawaramachi in Tagawa-gun, analysed in 1965 and 1966, reveals pollution's hazardous influence on human health, showing that Tobata's schoolchildren displayed a much higher number of sick leave as compared to their peers in an unpolluted environment.[351] The correlation between high smog and soot levels and the absence rate at school are significant. Especially during the smog season spanning from January to March, the number of students calling in sick was thirty-five percent higher than in non-smog periods in Tobata.[352] Even when accounting for the fact that these months are also the coldest in Japan, with a high occurrence of flu, cold or influenza, the negative impact of pollution on children's school presence Tobata is statistically significant. Another general trend was the steady increase of sick leave over time during the measurement period of four years. The last year of compiled data shows significantly higher absence rates in Tobata compared to both the 1950s and 1961, and in one elementary school in the Anō district of Tobata, the level of sick leave surpassed sixty-five percent.

Similar strong correlations between high pollution and disease were also found in adults. The women's association's large-scale research on over six-thousand women over forty years of age, conducted in co-operation with the Department of Hygiene at Kyūshū Institute of Technology, revealed a two-fold increase of chronic respiratory tract inflammation in Tobata than in the less-polluted neighbouring Kokura ward in 1965.[353] Taking into account that residents of

[351] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii I*, p. 16ff; Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II,* p. 149f.
[352] Ibid, p. 146.
[353] Ibid.

Kokura were also exposed to a significant amount of pollution, a direct comparison of oto-rhino-laryngological diseases amongst residents in the countryside would most likely have exposed even higher disparities between Tobata's citizens and residents of non-polluted areas. As even the difference in chronic respiratory diseases between inhabitants of Kokura and Tobata was significant, the women's association interpreted their findings as strong evidence that pollution was increasingly harming the health of the local population.[354] The numerous fatalities of patients with lung cancer, or other respiratory and heart diseases, provided further support for the women's hypothesis of pollution's highly adverse health effects. This research constitutes unique scientific evidence that, in the 1960s, pollution-induced fatal diseases were growing in Kitakyūshū.

After analysing the far-reaching immediate effects of pollution on human health in the 1960s, Tobata's women started to investigate the long-term effects of particulate matters and mankind's adaptation to it. Having proven the far-reaching impact of emissions on plants in their research in 1965, 1966 and 1967, Tobata's women's association formed the hypothesis that emissions also induced changes in the human body. Starting from their basic observations that nostril hair has been growing faster and stronger amongst Kitakyūshū's children, they postulated the hypothesis that the human body has adapted to pollution within less than two decades. Progressing from this observation, the women conducted a survey on Tobata's population, which revealed that seventy percent of the respondents had observed similar trends in regards to thicker nostril hair.[355] To emphasise and support their hypothesis of genetic modifications in humans, the women point out that studies have shown that monkeys had started to grown nostril hair, and that wild dogs in Kitakyūshū had been diagnosed with black lungs. Invoking research that confirmed that dogs in less-polluted areas had fewer residues in their lungs than in highly industrial regions, they put forward the hypothesis that black lungs might be expected in humans in Kitakyūshū. This demonstrates that, at a time when smoking was not yet considered a health hazard and when research on the effect of pollution on internal organs was in its infancy, Tobata's women were able to form their own hypothesis on pollution-induced diseases, and to contribute to a slowly building opus of scientific research.

***Give Us Our Blue Skies Back* I-V: overall motivation**

[354] Ibid,, p. 160.
[355] Ibid., p. 143.

The analysis of the women's major opus, the *Give Us Our Blue Skies Back* research reports, reveals the wide basis of arguments and innovative logic the women put forward. The underlying topic that spans through and connects all chapters is the health discourse on which the women based their argumentation. The anti-pollution efforts by Tobata's women's association, similar to other movements around the nation in the 1950s and most of the 1960s, were predominantly framed as a means to protect two major areas. This consists of, first, livelihood, or living environment (*seikatsu kankyō*), and second, the community as local unit. In other words, much of the movement was grounded on a health discourse rather than on ideas of conservationism and environmental protection, which facilitated appealing to a broader segment of society. Simultaneously, the women also hoped to contribute to the physical and social 'health' of the community.

From the beginning of their activism in 1949, Tobata's women's associations had framed their movement as endeavour, to protect the deteriorating health of the local population, especially that of the children and the elderly. The female participants portrayed themselves not only as guardians of the local community from a social perspective, hoping to save local harmony and unity, but also physically, trying to ease the pain inflicted by asthma and other pollution-inflicted diseases. Focusing their research on the effect of pollution on school children and old-aged women, which were most vulnerable to pollution, the women display a desire to become an advocate for those without the social power to help themselves. It also is a sign of how the women's associations, whilst being revolutionary in many respects, were motivated by their social role as mothers and its connotation as nurturer.

To understand the danger pollution inflicts on the human body, the women's society conducted several long-term studies on the following topics:

1.) Pollution-inflicted physical damage on school children, investigated by analysing the correlation between pollution levels and sick leave at elementary school.
2.) Occurrence and causes of serious diseases and deaths amongst citizens in Tobata (with special focus on the occurrence of cancer in women)
3.) Physical responses and adaptation to pollution in children and animals

In addition to providing new scientific evidence and disseminating it amongst the local population and government, Tobata's women's association also contributed to a better understanding of the sociological effects of pollution. Showcasing the tragic suicide of a seventy-six years old man who developed asthma and was hospitalised shortly after moving to Yokkaichi aged seventy-three, the women highlight the psychological and social dangers of pollution not

only for individuals, but also for society as a whole. The female activists revealed how the stigma attached to physical suffering and deformation, as seen in Minamata, where pollution victims were confronted with social exclusion (*murahachibu*), coupled with the financial and emotional burden for the family, put a strain on society. They therefore argued that the spread of asthma epidemics occurring in industrial cities such as Yokkaichi, Yokohama and Kitakyūshū had to be stopped to guarantee the functioning of Japanese society as a whole. Asking industry and government to prevent the nationwide spread of asthma after new medical conditions such as 'Yokkaichi Asthma', 'Yokohama Asthma', and 'Sanroku Asthma' (Kitakyūshū) have emerged in many cities in the 1960s, Tobata's women's association displayed high awareness of the dangers of pollution outside of their immediate local community. This clearly shows that whilst for the women their immediate concern was the physical and psychological health of Kitakyūshū locals, they were ultimately worried about the healthy functioning of Japanese society at large.

The *Give Us Our Blue Skies Back* reports reveal that Tobata's women mainly acted in their self-perception as housewives and mothers, justifying their movement as activism both for their family, 'their husbands […] and children', and the local community. Whilst retaining the local community as major reference point, Tobata's women also highlighted that the whole of Japan had to develop into a nation that protects its citizens and nature. Starting with their immediate communities, where people could cooperate best due to personal ties and trusted relationships, policy mechanisms on all levels should be reformed, they argued. The women furthermore proposed that the competencies amongst different levels of government should be reconsidered, and that in the field of pollution-prevention and mitigation, power should be partially shifted from the prefectural to the municipal level. Concretely, the women's association suggested that the right to issue smog warnings was inefficient when in the hands of the prefectural government rather than the city most affected by it. Thus, they demanded that Fukuoka Prefectural Government, located fifty-five kilometres southwest of Kitakyūshū, should transfer the right to issue smog warnings to Kitakyūshū's city government. They also proposed that the right to set different, higher, environmental standards, such as regulations on emissions, should partially lie with local and prefectural governments. This greatly reflects the women's idea of multi-level governance and a top-down shift of executive power to those levels of government that are more directly impacted, and thus best placed to deal with the problem. Whilst such a shift of power to local government has partially been implemented in Japan, where localities often set more stringent environmental requirements than the national government, the women's proposal was innovative as it also included a shift from administration to civil society in terms of executive power. The women suggested that for local governments to respond quickly and efficiently to

pollution problems, they needed to involve citizens in several functions. When Kitakyūshū became the first city in Japan to receive the right to issue smog warnings in 1969, civil society played a major role as it informed the government whenever the first signs of smog occurred in their locality.

The five *Give Us Our Blue Skies Back* reports published between 1965 and 1969 reveal Tobata's women's desire to protect human health, animals and plants, as well as the whole local community, which functioned as the main motivation for their activism. The major aim of Tobata's Collaborative Women's Association was thereby to provide evidence for the serious immediate and long-term effects of pollution on human health, such as cancer and chronic respiratory diseases, and to inform and sensitise not only the local population, but also government, industry and academia to the problem. In the absence of far-reaching help from the government, legislative, industry and most scientists, Tobata's women pointed out people's self-responsibility to protect their family and their immediate community as the first step of independent activism, and advocated ideas of mutual aid.

VI.V Summary

The Give Us Our Blue Skies Back I-V reports serve as outstanding collection of experiments and scientific discussions, analysing the effects of pollution on humans, animals, plants and trees. Their interdisciplinary approach, including medical examinations, meteorological debates as well as sociological discussions on human rights and the social problems of pollution, is highly innovative and reveals that the women's association did not regard pollution as a geographically limited, transient problem, but as an issue that had to be assessed holistically and solved by a variety of social actors, including governments, industry and civil society. On top of producing new insights into the emerging field of pollution research, the women's association also stimulated open discussion about how all levels of society should work together to respond to pollution. They provided their own proposals to introduce multi-level governance in environmental administration, to ensure that the most appropriate level (local, regional, or national) could implement policies on its own.

The research reports *Give Us Our Blue Skies Back* I-V perform numerous functions. To start with, the reports set an agenda (*agenda-building*), catapulting the environment onto centre stage in the local discourse. By informing the community about environmental issues through the research papers they distributed, Tobata's women managed to create a receptive audience, which became increasingly aware that emissions posed a health problem, rather than being a positive

sign of economic growth. The process of agenda-setting or agenda-building in Tobata can be best described by Roger Cobb et al.'s 'outside-initiative model'.[356] Cobb et al. propose than in the outside-initiative model, an issue is brought to the public agenda before becoming part of the formal agenda of governments. They argue that it is civic associations, through their effort to raise awareness amongst the general public for their agenda, who have the greatest influence in agenda-building and thus later also in policy-making.

Through the educational function of the research reports, which were printed around six hundred times each (equalling 3,000 copies of up to two hundred pages) and distributed amongst locals, the population was not only sensitised, but also educated about the science of pollution (creating a *'receptive audience'* and an *'informed population'*). The framing of pollution as a health and environmental problem, paired with the locals' understanding on the political and scientific aspects of pollution control, increased the acceptance of, and thankfulness towards, the women's movement, and created growing support. Showing Tobata's citizens that large parts of the population were suffering deepened the group identity, which served as a foundation for increased action amongst the local population ('*supportive masses'*). Unlike in Minamata or other communities, where pollution victims were often stigmatised, a sense of solidarity spread amongst Tobata's residents, and the activism of the women's association increasingly received recognition and praise.

The women's awareness campaign regarding the high levels of air pollution, which had become so serious that ninety-seven percent of the population in Sanroku (Tobata) hoped to move away in 1965, according to the *Give Us Our Blue Skies Back* documentary, functioned as trigger for individuals to stop the silence on their suffering and to act rather than to 'bear the situation' (*gaman suru*) (partial *paradigm change*). The research reports played an enormous role in this paradigm change, as they not only informed the public about the issue, but also helped create a community of 'enlightened locals fighting against pollution'. The suffering depicted in the reports acts as physiological justification amongst the women for their anti-pollution activism, and the increased media attention not only convinced Tobata's women's association itself that it was justified and socially necessary to act against the culprits, but enhanced the viability and acceptance of their protest.

The socially accepted, institutionalised character of Tobata's women's associations, their outlook as a true grassroots movement, and the changing external situations that raised awareness about the dangers of pollution increased the support of the women's movements amongst progressive academics and the media. The established position of scientists and

[356] L. Pal, *Beyond policy analysis: public issue management in turbulent times* (Toronto, 2006).

journalists, which supported the women's activism, formed an *advocacy coalition* that attracted support for changes to the governance of pollution and increased the pressure on the local government of Kitakyūshū. The collective forces of civil society, the media and individual scientists demanding changes in the local administration increased the disposition of the administration to act, to some extent also changing local civil servants' perception on pollution (*supportive government*), and providing better representation of the population's demands for a cleaner environment (*political representation*). This model on the success of grassroots movement explained how smaller civic anti-pollution movements, such as in Tobata, developed into a political force, receiving public representation of their cause.

The case of Tobata clearly highlights that rather than a top-down approach of governments raising environmental awareness amongst the general population (*mobilisation model),* it was a grassroots, bottom-up attempt by civil society actors that brought pollution prevention onto Tobata's public agenda in the 1960s. Whilst in many other localities or on a national level, the government tried to keep pollution issues out of public scrutiny, Tobata's women's association managed to create awareness that pollution was a serious health issue rather than a sign of economic progress, and received widespread support for their case in the mid- and late-1960s. Unlike in other communities, where the activists often remained isolated and, without public support, excluded from local governance, Tobata's women's association managed to create a community based on support and active mutual aid, as this chapter has demonstrated.

CHAPTER VII: SCIENCE IN POST-WAR SOCIETY

Science played a major role in the anti-pollution movement undertaken by Tobata's women's associations. Contemporary interpretations of science as an indicator of growth and progress in the 1950s and 1960s, and the resulting massive industrialisation of Japan, not only brought pollution, initiating a twenty-year long struggle of Tobata's women, but ironically also posed the key for the success of the female anti-pollution activism. In other words, science was not only the root cause for pollution, and therefore also for Tobata's environmental movement, but also the solution and major means for combatting pollution in the 1960s. To highlight the important role of science not only for the *Give Us Our Blue Skies Back* movement, but for Japanese society as a whole, including the industrial and technocratic sectors in the 1950s and 1960s, the impetus and changing interpretation of 'science' will be analysed in the following chapter. Analysing common ideas of scientific development helps one come to an understanding of post-war Japanese society and its seemingly unrestricted belief in science as an indicator of growth and modernity. It not only explains how Japan could become the world's most polluted country in the late 1960s, but also how science made Japanese society more democratic and equal after World War II. Whilst outlining the limits of science and technology, both regarding their effectiveness in reducing pollution and as a means of democratising Japanese society and politics, this chapter also shows that science provide an opportunity for previously 'powerless' individuals and groups such as housewives in the periphery to influence politics. In several cases, such as in Minamata, science was deliberately misused by power elites in the Japanese government to push for unrestricted growth policies. This chapter demonstrates how science was the decisive tool for Tobata's Give Us Our Blue Skies Back movement in gaining social and political acceptance.

To understand science's role in post-war Japanese society, its influence on politics, as well as its impact on Tobata's anti-pollution movement, this chapter begins with an analysis of the ideology vis-à-vis science in the early post-war years. It will be outlined how the 'science optimism' of the 1950s led to a 'science boom' in the 1960s, before rising environmental problems triggered a more critical view on science and modernisation. Evaluating barometers of public opinion in the 1950s and 1960s, especially those conducted every five years by the Institute of Statistical Mathematics since 1953, Chapter VI.I reveals the changing perceptions of science in post-war society. The gender-gap in the Japanese citizens' understanding of the relationship between humankind, science and nature will also be discussed. Chapter VI.II analyses the role of science from the perspective of gender, pointing out that whilst scientific research was generally considered predominantly the prerogative of male academics, Tobata's

women, as well as female activists in the consumer movements, managed to enter the 'male sphere' of scientific investigation. Due to its young history and its modern, democratic character, science thereby presented one of the few disciplines in which women in the early post-war years, when old structures and hierarchies were in a state of flux, could be active.

Chapter VI.III, in contrast, contributes to a better understanding of researchers' and technocrats' engagement with pollution science between 1945 and 1970 to evaluate the innovative character of the scientific research conducted between 1950 and 1968 by the women's associations of Tobata. Revealing the sparse nature of attempts to understand the repercussions of pollution and its impact on the human body, flora and fauna, as well as the eco-system by most universities, government ministries and research laboratories, the following chapter highlights not only the exemplary nature of the pollution research by Tobata's women, but also the early timing of the women's studies, which often preceded mainstream research by Japanese academics and government institutions.

As outlined, this chapter aims to contribute to an increased understanding of the sciences in Japanese society in the 1950s and 1960s, by showing how large parts of the success of the *Give Us Our Blue Skies Back* movement of Tobata's women's associations can be attributed to the skilled use of science and co-operation with academics in the natural sciences and technology. It also highlights that whilst mainstream scientists largely refrained from studying the manifold repercussions of pollution at least until the late 1960s and early 1970s, Tobata's housewives engaged in independent pollution research from 1950. Starting with simple devices that were readily available in their kitchens, the woman tried to put forward scientific evidence to describe the high level of pollution their community was experiencing, and in the 1960s, also succeeded in giving proof for the negative impact of pollution on local citizens' mental and physical health, flora and fauna, and the eco-system. The research also demonstrated the detrimental effects of pollution on the community's social coherence and general satisfaction. Taken in combination with Chapter V, which minutely discussed the women's use of science, it will be argued that the scientific studies by Tobata's women's associations paved the way for their success as local housewives understood the crucial role science as technology started to play in the post-war Japan of the 1950s and 1960s.

VII.I Science boom and the erosion of science

With the end of World War II, elites in government and industry started to re-evaluate Japan's history, coming to the conclusion that Japan had lost the war not due to a lack of military

strength, but because of deficiencies in technical advancement. To regain access to the global stage, Japan's leaders promoted rapid modernisation with an increasing focus on science. Such a focus would allow Japan to export technical products, thereby becoming a global economic power, according to the rationale of the Ministry of International Trade and Industry (MITI) in the late 1940s and early 1950s. In response to the government's frantic attempts to increase scientific research and technology, which was further fuelled by the introduction of new electronic devices by American GIs during the Occupation years, the Japanese population not only displayed a steadily-increasing interest in science, but also a growing trust in science between 1945 and the late 1960s. With spiralling GNP growth since 1955, largely as a result of industrial investment in technological development and a rising chemical industry in the 1960s, natural sciences became one of the most popular and prestigious subjects at Japanese universities. This included the conservative and rather humanities-oriented University of Tōkyō, Japan's most competitive institution of higher education. The Graduate Schools for Science, the Graduate School of Chemistry, and the Graduate School for Biology, which the Japanese government had established at its prime research institution, the University of Tōkyō in 1953 in an attempt to increase both the quality and quantity of modern scientific research, soon became magnets for young Japanese men aspiring towards a promising career in the natural sciences. It was not uncommon for women to be enrolled upon these courses, too. Within a few years of the end of Allied Occupation, both the national and prefectural governments established new departments and graduate schools in the Natural Sciences and Engineering to comply with METI's vision of creating a nation of scientists. The University of Tōkyō, for example, established an Institute for Nuclear Study in 1955, added another scientific institution (Institute for Solid State Physics) in 1957, opened a new Department of Biochemistry in 1959, and created three new graduate schools in the natural sciences (Graduate School of Engineering, Graduate School of Medicine, and Graduate School of Pharmacy) in 1965. The impressive rise of new scientific establishments in the 1950s and 1960s was not only the result of the national government's plan from September 1961 to raise admission figures in science and technology subjects by another 20,000 students by 1964, but also stemmed from the newly-developed belief that the future of the nation was in the 'hands of science', with the country requiring tens of thousands new skilled scientists. Within just a few years, the number of students applying to the newly-created departments, especially the Department of Chemistry, was soaring, overtaking many long-established faculties in levels of attractiveness for prospective applicants. Trusting the government's propaganda that scientists were the foundations of the nation, and hoping to enter a prestigious company, thousands of high school graduates were drawn into the sixty-two technical colleges established by the early 1960s.

As Nakayama (1991) puts it, 'Japan was perhaps the most optimistic country in promoting science and technology' in the 1950s and 1960s.[357]

Accompanying the rising interest in science and the rapid growth fuelled by electric and chemical industries, the perception of nature amongst the common population changed. According to the National Institute of Statistical Mathematics, which has been publishing major opinion polls on people's assessment of life, society, religion and nature in five-yearly intervals since 1953, people increasingly turned away from the concept of mankind following nature in order to achieve happiness. Between 1953 and 1968, the number of people proclaiming that a peaceful co-existence between man and the environment ('following nature') was the basis of human happiness declined from twenty-six percent to nineteen percent. At the same time, the number of those advocating that man should 'conquer nature' in order to be happy steadily increased by nearly fifty percent over the same time, from twenty-three to thirty-four percent.[358] Between 1968 and 1973, with the increasingly prevalent nature of pollution, the advent of larger environmental movements and the first oil shock, the ratio of supporters of the 'follow nature' versus the 'conquer nature' approach turned flipside. This is impressively shown in the following figures: whilst in 1968, nearly twice as many respondents supported the extensive (ab)use of nature (34 percent) than those promoting a peaceful co-existence with the environment (19 percent), nearly double the number of respondents supported a more peaceful approach to using nature (31 percent versus 17 percent) five years later. Similar ideas were also reflected in the Basic Law for Environmental Pollution Control, Japan's first major anti-pollution law created in 1967, which included a 'harmony clause' proposing that 'preservation of the living environment shall be carried out in harmony with the healthy development of the economy'. In contrast, the thirteen environmental laws the 'Pollution Diet' passed in December 1970 supported the approach that development should not happen at the price of the environment. Combining the figures of people hoping to 'use nature' with those proclaiming to 'conquer nature', it becomes apparent that the large majority – over seventy percent – of Japanese people trusted the government's agenda of ruthless economic development with few policies for environmental protection in the 1960s. To put these figures into context, since the late 1980s respondents supporting the conquest of nature have never surpassed one-digit figures, whilst over half the

[357] S. Nakayama, *Science, technology and society in Postwar Japan* (London & New York, 1991).
[358] Institute of Statistical Mathematics, 'Nihonjin no kokuminsei chōsa' [Study of the Japanese national character], The first, second, third and forth nation-wide study *1953, 1958, 1963, 1968*, accessed 4 March 2016 at http://www.ism.ac.jp/~taka/kokuminsei/table/index.htm.

respondents believe that man's happiness depends on a peaceful co-existence with, and respect for, nature.[359]

Whilst women have consistently displayed higher environmental consciousness in the opinion polls since 1953, such gender difference was most pronounced in the 1950s and 1960s. In 1953, over seventy percent more men than women (33 percent versus 19 percent) supported the subjugation of nature. However, similar to the trend amongst males, by 1958 the majority of women had accepted the government's propaganda that nature had to be use or conquered. Whilst such an attitude of man over nature was a common phenomenon in most developed nations in the 1960s, Japan's support for man's dominance over nature is unmatched, both amongst metropolitan and rural residents.

Despite openly supporting technological advancement and the domination of nature, a considerable part of the Japanese population also expressed a conviction that 'a lot of human feeling is lost' due to 'the development of science and technology'. Strikingly, the figures of respondents regretting the loss of humanity and personal relations due to technological advancement runs parallel to the ratio of people supporting the complete use of nature to fuel technological advancement, and increased steadily between 1953 and 1968. This reveals that whilst the Japanese nation may have regarded the unrestricted use and domination of nature as a necessary condition for achieving the state's grand aim of becoming a leading economic power, some level of mental reservation and moral doubt were not absent. The opinion polls do not highlight a 'blind belief' in science, but instead reveal the general consensus of 'putting the economy first' that prevailed in the 1960s. However, it was the national economy rather than private household income that the Japanese people were trying to support. During the 1950s and 1960s, never more than twenty percent of all respondents described their major goal as 'working hard and getting rich'. Instead, it was GNP growth that people were striving for, thereby sacrificing not only demands for social welfare and housing improvements, but also the environment.[360]

By the late 1960s, the foundations of this commonplace science-optimism began to crumble, with students especially becoming increasingly doubtful over the societal contributions of technology. Philosophical works that pointed out the dangers of science and modernisation, such as those of Marcuse, Habermas and Roszak, were being published and widely read in Japanese. This, according to Nakayama (1991), 'liberated many undergraduates from the widespread popular faith in scientism, the belief that science and technology should be absolutely

[359] Ibid.
[360] Ibid.

right and therefore promoted'.[361] The emerging philosophical engagement with science and the negative externalities of growth also triggered a general debate on the role of science in society amongst progressive elites. Jun Ui, research associate at the prestigious Tōkyō University, started a public lecture series on 'the principles of pollution' in 1970, attracting a considerable academic and general audience of around eight hundred participants within his first year. However, the climate of promoting economic growth without concessions to environmental protection was perpetuated amongst the majority of government elites and academics, as a result of which Ui did not get promoted to a higher position at the University of Tōkyō, as speculated by Nakayama.

Despite the bureaucracy's efforts to 'silence' academics that protested against unrestricted growth, the discourse on science considerably changed, and structural criticism regarding the use of natural science became increasingly vocal throughout the times of student revolts of the late 1960s. It can thus be argued that the common discourse of the early 1970s, which was dominated by an increasing awareness of the pitfalls and limitations of science, was triggered by, or at least followed, the changing discourse on science start started in the late 1960s and early 1970s.

Whilst in the immediate post-war years Japan's bureaucracy and academics were convinced that science was synonymous with progress, rationality and objectivity, and should thus be promoted in order to promote a similarly-modernised Japan, this optimism had changed by 1970. Despite previous beliefs that science was a liberator from pre-war authoritarianism and militarism, putting an end to the conservative feudalistic system, an increasing number of Japanese people started to realise that science had failed to make Japan more democratic and equal. Instead, it was increasingly pointed out that despite the non-political, neutral and equal nature of science per se, scientific research became a further tool for the conservative political establishment to maintain the present state of affairs. Instead of being used for the improvement of society, as initially hoped for, science had become a tool for the technocratic elite to push national economic growth without social considerations, according to literary critics, philosophers and progressive students in the late 1960s.[362] They protested against the abuse of science by industry and political elites, who had disqualified scientific evidence regarding the dangerous nature of pollution for humans and nature in the 1950s and 1960s, and who disregarded autonomous, neutral science by smaller universities and citizens' movements. Cases such as mercury-poisoning in Minamata (Kumamoto prefecture), which highlighted that the LDP tried to use science for the maximisation of profits amongst industries on which Japan's 'developmental

[361] Nakayama, *Science, technology and society in Postwar Japan*.
[362] Ibid.

state' was built, reveal that science had increasingly become a tool for economic growth rather than a means to improve social justice by the 1960s.

VII.II Science and gender

Despite the sparse nature of publications on pollution amongst academics, literates, industry and government organs, citizens' movements such as Tobata's women's associations displayed an increasing interest in finding scientific evidence for the adverse effects of both pollution and wrongly-labelled consumer goods. Several of the most well-known anti-pollution movements of the 1950s and 1960s made ample use of new scientific evidence to support their case. However, it remains unknown whether Tobata's women were aware of this, as there is no mention to other movements in any of their writings. Amongst the most famous is the Minamata Disease victims' support group, which consisted of photographer Eugene Smith and his wife Aileen as well as writer Michiko Ishimure, who used scientific research by the Kumamoto University Medical School Minamata Disease Study Group (usually referred to as the Minamata Disease Study Group) to support their argument that Minamata Bay was contaminated with Chisso's methyl mercury effluents. These effluents poisoned not only fish and cats, but also found its way into human body through the food chain. Whilst the scientific research by the researchers from Kumamoto University's Medical School was initially disputed and discredited as 'third-tier science' from the periphery, it became powerful evidence in the legal trials against the culprit, Chisso Corporation, in the late 1960s and early 1970s. Although the fight between Chisso and the pollution victims was predominantly executed on the basis of different interpretations of the danger of methyl mercury, with pro-government scientists denying the viability of Kumamoto University's results and producing counterfactual 'evidence', the Minamata victims' movement was not directly involved in scientific studies regarding Chisso's responsibility for the loss of thousands of lives. Their fight was rather based on a nation-wide recruitment of supporters for their case, incorporating law professionals and left-wing activists, and unifying them in a legal fight against the Chisso Corporation.[363]

Similar battles regarding the viability of scientific research outside top-tier national universities and government-run institutes were also fought in Shizuoka Prefecture in the mid-1960s. In the three neighbouring towns of Numazu, Mishima and Shimizu, where the local governments' plans to allow construction of a petro-chemical complex (*konbinato*) was made public in 1963, science teachers from Numazu technical high school used science as tool to

[363] George, *Minamata.*

disseminate what they perceived to be unbiased information, and to warn the population about the dangers of petro-chemical smoke.[364] Giving around 500 lectures in neighbourhood associations and at other smaller meetings, they tried to convince the public of the huge pollution threat in case the new petrochemical complex materialised. They referred to the case of Yokkaichi, where a similar *konbinato* had resulted in surging respiratory diseases and the wide spread of 'Yokkaichi asthma', and explained how gases and chemical particles set free in the production process posed a severe danger for human health and the environment. Inviting the local population to attend science lectures and publishing scientific explanations regarding the dangers of chemical pollution in newsletters, science played a major role in the citizens' successful effort to convince the mayor about the negative effects of his planned undertaking. However, similar to the case in Minamata, the anti-development movement of Numazu/Mishima/Shimizu was not actively producing new scientific evidence. This impressively highlights that whilst citizens' movements across the Japanese archipelago were increasingly basing their activism on scientific results, active participation in producing new scientific evidence in the 1960s, which increased the general understanding of pollution's adverse effects on human nature and the environment, was predominantly limited to Tobata's housewives, a group commonly believed to be the most unsuitable and disinclined towards science.

Despite the absence of female scientists in tenured positions amongst the large majority of Japan's universities, women displayed a critical engagement with science. Especially consumer movements such as the national Shufuren Movement (*shufu rengō*; housewives' union) led by Mumeo Oku, or the Tōkyō-based *Seikatsu* (Lifestyle) Movement, placed high emphasis on science. Already in 1950, Shufuren started to scientifically analyse the contents of widely used staples such as soy sauce, milk and margarine. Under the aegis of its Vice-President Yuri Takada, a retired female Professor at Kyōritsu College of Pharmacy, Shufuren lobbied against suboptimal food standards and food safety, using their scientific evidence to highlight issues including unevenly-controlled pasteurisation, or the wrong labelling of milk.[365] The indisputable scientific evidence behind their demands led to improvements in the quality of foodstuffs and better consumer rights. Science used by the predominantly female consumer movements positively impacted society as a whole, highlighting the beneficial role science could play in modern society. Whilst the women scientists in Shufuren's impressive laboratory around Yuri Takada were professionally trained, their approach and goal was comparable to that of Tobata's women.

[364] J. G. Lewis, 'Civic protest in Mishima: citizens' movements and the politics of the environment in contemporary Japan', in S.C. Flanagan, K. Steiner, and E.S. Krauss (eds.), *Political opposition and local politics in Japan* (Princeton, 1980), pp. 274-316.
[365] P.L. Maclachlan, *Consumer politics in postwar Japan: the institutional boundaries of citizen activism* (New York, 2002).

Pursuing similar goals, consumer groups as well as the female anti-pollution movement in Tobata hoped to use scientific evidence to make their voice heard in national politics, being aware that the predominantly male law-makers and local bureaucrats were most easily convinced by hard facts, or 'masculine' science. In other words, science, and the equality it was hoped to stand for in post-war society, had become a means for women to influence males by adding scientific validity to their arguments.

Whilst science and women were often regarded as being in opposition to each other in 1960s Japan, a time when less than five percent of all students in four-year universities were female (1960: 2.5 percent; 1965: 4.6 percent), and when women were predominantly expected to polish their cultivation and social skills rather than increasing their scientific understanding, science presented a way for women to gain credibility in male-dominated circles.[366] Despite the number of female students in science disciplines being far below those of men in the 1950s and 1960s, with the democratisation of Japanese society, science, which was regarded a most obvious example of the complete rationality, democracy and equality, had become a vehicle for women to achieve their goals in politics through consumer and anti-pollution movements.

VII.III Official pollution research in the 1950s and 1960s

Whilst the conservative government promoted science after World War II until at least the early 1970s, little official research focused on pollution. The national government's compilation of the complete publications on pollution by the central bureaucracy, government-related institutions (excluding national universities), and public or private corporations between 1945 and March 1971, highlights the sparse interest in pollution until the early 1970s amongst national state organs and private businesses. Although the thirty-seven page compilation comprises of over one thousand pollution-related publications on 1.) General pollution, 2.) Air pollution, 3.) Water pollution, 4.) Landslides, 5.) Noise pollution, 6.) Olfactory pollution, 7.) Radioactive pollution, 8.) Sanitation/faecal waste processing, and 9.) Infectious diseases, by far the most articles were published between January 1967 and March 1971, when pollution was catapulted onto the public agenda. Fuelled by both rising SOx and NOx levels, both civic anti-pollution protests and scientific investigation on the environment surged, making pollution a focus of general attention.

Although publications on general pollution (1) amongst the National Diet and ministries surpassed one hundred papers between 1968 and 1971, only six reports were issued between 1945

[366] N. Kodate and K. Kodate, *Japanese women in science and engineering: history and policy change* (Abingdon, 2016).

and 1960, showing a high imbalance of interest in pollution amongst the state's highest political organs. Furthermore, the few pollution-related articles published before 1965 do no address industrial pollution and its adverse effects on humans and nature, but rather discuss water quality and sanitation, predominantly in the over thirty publications by the Economic Planning Agency and the Prime Minister's Office, and the Headquarter of Economic Stability between 1948 and 1950. The interest in rivers by governmental institutions developed under the backdrop of increasing dam construction since the late 1940s, which was expected to help Japan diversify its energy supply. The Economic Agency's strong focus on development highlights the absence of serious concerns about the water quality until around 1957, when more critical publications on industrial waste started to be published in regard to the new Water Quality Control Law and the Industrial Effluent Control Law of 1958. The Ministry of Forestry and Fishery was one of the first national institutions to research water pollution from mining (1955, thirty pages) and the chemical industries (1957, sixty-two pages), thereby highlighting increasing industrial effluents, without outlining possible solutions to decrease them.[367] Despite the sporadic interest in rivers due to planned dam construction, as well as in landslides after the landslide disaster in Niigata in 1968, research on issues of pollution in general and industrial pollution specifically was dominated by the nearly complete lack of scientific studies on pollution by national government-affiliated groups of private businesses.

Whilst local and regional governments appear to have been slightly more interested in issues of pollution, with local administrations passing many anti-pollution regulations before the central government took action, pollution-related publications amongst sub-national administrative units were not much more numerous than that of the national government and related organs. Tōkyō Metropolitan Government implemented the first law regulating air pollution in 1949, over a decade before the national government's first Soot and Smoke Emission Law of 1962. As Tōkyō experienced extreme levels of pollution until the early 1970s, and as its city government also implemented post-war Japan's first pollution law in 1949, it is assumed that the Tōkyō-To Laboratories of Medical Research (*Tōkyōtoritsu Eisei Kenkyūjo)* were amongst the most forward-thinking regarding pollution research. The institute was amongst the first of the government-affiliated organs to investigate industrial pollution in 1954, when a group of five scientists from the Environment Section *(kankyōbu)* conducted soot measurements in twenty-six locations in the wider Tōkyō-area in 1954, including sites of industrial production and residential

[367] Ministry of Forestry and Fishery, *Kagakuku kōgyō haisui no shori ni kansuru kenkyu* [Research on the disposal of waster water from chemical Industries] (Tōkyō, 1957); Ides, *Tanzan oyobi kōzan haisui ni yoru suishitsu odaku ni kansuru kenkyū* [Research on pollution from coal mines and mines] (Tōkyō, 1955).

areas.[368] Whilst their findings highlight a massive degree of pollution in several areas of Tōkyō, especially in the Arakawa area where soot levels surpassed 42 tons/km^2/month (approximately 50 percent less than in Yahata's Shiroyama district during the height of pollution in the late 1960s), there was little critical engagement with the pollution data the Tōkyō-To Laboratories of Medical Research published from 1954. Whilst annual follow-up studies revealed rising soot and sulphur pollution, and although high levels of effluent pollution were revealed in 1958, efforts to understand and explain the exact causes of pollution and its effects on the human body and nature remained minimal.[369] Similar to the studies conducted by smaller local governments such as in Tobata, Tōkyō's prefectural government provided data on pollution with little practical implications, displaying low levels of serious engagement on how to solve the ever-rising pollution levels in the 1950s and 1960s. Thus, despite the tendency that local and prefectural governments preceded the national government in providing scientific pollution data, their research on industrial pollution remained largely ineffective.

This lack of efficacy in research is in stark contrast to the research conducted by Tobata's women's association, which hoped to make science as accessible for the general population as possible. As amateurs, most of the female activists had neither attended high school nor university, the women used all available means to measure and investigate pollution. Especially in 1950, the only available 'equipment' was disposables from the kitchen. This included milk cartons and candy boxes. Nevertheless, step by step, the local women added scientific viability to their research and the results they produced, and by the mid-1960s were able to gain scientific results that were at least equal to most other studies of the same time, or even surpassed other research on industrial pollution's health and social implications. The women's main research opus, the five *Give Us Our Blue Skies Back* research reports published by Tobata's Collaborative Women's Association between 1965 and 1969, will be introduced in the following chapter, which serves to highlighting the housewives' significant contribution to a better understanding of the scientific aspect of pollution.

[368] Tōkyō-To Laboratories of Medical Research, 'Tōkyōto no shitsugai kūki to beien ni kansuru chōsa'.
[369] George, *Minamata*; Ui (ed.), *Industrial Pollution in Japan*; Walker, *Toxic archipelago.*

CHAPTER VIII: The emergence of environmental consciousness between 1945 and 1970

VIII.I The media's role in expanding Tobata's women's association's social acceptance and political influence

Between 1949-1969, Tobata's women's association (Nakabaru Women's Association and Sanroku Women's Association, followed by the concerted actions of Tobata's Collaborative Women's Association) displayed serious efforts to initiate pollution reduction in Kitakyūshū through petitioning and subsequently collaborating with the local government and industry. Whilst the strategy of Tobata's women's associations in their anti-pollution activism remained largely the same between 1949 and 1969, the women were able to exert considerably more pressure on the city government and industry in the 1960s as compared to the 1950s. At least since the early 1960s, local government and industry were markedly more receptive to the demands of anti-pollution groups. In 1961, the same day the Women's Association of Sanroku asked mayor Shiraki to urge Nittetsu Chemical Corporation to curb emissions, Shiraki decided to visit Nittetsu's headquarters in Tōkyō to appeal directly to the headquarters' management. Moreover, he invited Chairwoman Nakasu as well as a further representative from the women's association to join him for the visit. In Tōkyō, the delegation from Kitakyūshū was welcomed by a high executive, and after some discussions in which Kitakyūshū's female representatives displayed stained grey Shōji papers from Tobata's houses, Nittetsu's management promised to increase pollution control measures.[370]

This episode is only one of numerous examples of how receptive the local government and industry had become to complaints by local citizens by the early 1960s, and how much leverage Kitakyūshū's civic movements could exert. Contrary to common assumptions that anti-pollution movements had little influence on local and national politics until the late 1960s and early 1970s, even in the case of the Big Four Pollution Cases (Minamata Disease, Yokkaichi Asthma, Niigata Minamata Disease, and Itai-itai Disease), Tobata's women's association could exert considerable leverage. Mayor Shōgen Shiraki (*Tobata, Socialist, until 1963*), Mayor Hōsei Yoshida (*Kitakyūshū, Socialist, 1963-1967*), and Mayor Gohei Tani (*Kitakyūshū, Conservative, 1967-1987*), complied not only with the majority of demands by Tobata's women's association, but also advocated their cause amongst industry, demanding an increase in pollution control efforts.[371] In addition to being supporters of the women's cause, the city government also invited a representative of the women's association to become one of thirteen members of the

[370] Hayashi, *Yahata no kōgai*.
[371] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen*.

government's official new Kitakyūshū City Pollution Prevention Policy Commission (*Kitakyūshūshi kōgai bōshi taisaku shingikai*), created in 1964 after the five towns of Kokura, Tobata, Wakamatsu, Moji and Yahata had merged to form Kitakyūshū.

In the second half of the 1960s, Kitakyūshū's women's organisations received even greater levels of support. Since 1964, renowned academics had supported their independent research on pollution in Tobata, and the city government not only funded their research partially, but also provided opportunities to exhibit their results every autumn. Large parts of the local population displayed considerable interest in these exhibitions and endorsed or actively supported women's activism. In 1966, 13,000 out of Tobata's 27,000 households participated in a large-scale survey on the adverse effects of local pollution that was conducted by the women's association.[372]

These observations on the increasing influence of Tobata's anti-pollution activism in the 1960s trigger three important questions. First, why and how did this change in acceptance of the women's associations amongst government and industry in the early 1960s happen? In other words, why did Tobata's women have greater leverage and bargaining power in the early 1960s compared to the 1950s? Was this due to rising environmental awareness? Second, what triggered or influenced the large-scale support from the local population and social elites, such as academics, from 1965 to 1969? Third, why could Tobata's anti-pollution activism exert more influence on society and local politics than similar movements in other localities?

One might assume that rising SOx levels since the late 1950s had a major impact on the women's increased activism and their success. However, numerous studies reveal that there is no clear correlation between actual pollution levels and civic protest, and that environmental concerns are not directly a result of environmental destruction. Rather, support for environmental movements depends largely on agenda-setting, and how the issue is framed, instead of its magnitude. In other words, pollution and environmental degradation did not pose a problem to many people in the 1950s. Only when pollution was portrayed as something negative, for example as a threat to human health and the living environment, did the general population in Japan start to become interested in environmental protection and supportive of anti-pollution movements. Thus, successful agenda-setting by the media, politicians and social movements, amongst others, which creates broader consensus that pollution should be curbed, is a prerequisite to generating interest amongst the population. In other words, rather than rising pollution levels in the 1960, it was the framing of pollution as a social, environmental, and medical problem, to

[372] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*.

which Tobata's women's associations greatly contributed, that translated into the higher leverage of the city's anti-pollution movement.

This chapter proposes that it was the print media that greatly impacted Tobata's women's success in two ways. First, by reporting critically on pollution, highlighting its negative impact on human health and society from 1953, and revealing the government's inertia or ineffective policies. Second, by reporting positively on Tobata's women's activism from the mid-1960s. As previously discussed, newspapers thereby sensitised the local population as well as government regarding the ills of pollution since the 1950s, and increased the acceptance and power of the anti-pollution movement of Tobata's women's organisations. The media thereby contributed to the formation of advocacy coalitions.

It will be highlighted that the agenda-setting of pollution as a problem by Japanese print media happened much earlier than is usually assumed, with critical coverage becoming a wider phenomenon by the early 1960s. Accompanying the increasingly negative depiction of industrial pollution by the media from 1953, a change in the discourse on air pollution from symbol of pride to health hazard started to take shape already in the late 1950s and early 1960s, much earlier as commonly assumed. The gradual changes in perception on, and desirability of, smoke and industrial pollution in the print media triggered a discourse on the fatality of pollution in Kitakyūshū from the early 1960s, and had a significant impact on the women's bargaining power during their activism in the 1960s. Informing and sensitising the population, the media helped create a *receptive audience*, with the common population starting to be psychologically involved in pollution issues and mentally receptive to local social movements from at least the mid-1960s. The *receptive audiences* translated into *passive support*, and with the local population increasingly aware of the repercussions of pollution, politicians and industry could no longer ignore Tobata's women's demands as parts of the local population were closely watching their actions.

Tobata's women's success in influencing local politics was, to a considerable extent, grounded in the media's support regarding their cause, as well as the general sensitisation of the population for pollution issues through newspapers. The female anti-pollution activism and the media's agenda-setting thereby greatly influenced each other. Whilst the media increasingly addressed pollution since the early 1960s, the women's large-scale activism in the mid-1960s spurred media coverage, especially TV and radio, on the topic. This cycle increased the salience of the topic in the public debate that started to take place in Kitakyūshū from around 1965. In contrast to other Japanese communities, where large parts of anti-pollution activism was met with disregard or even hostility at least until the mid-1960s or late 1960s, the movement by

Kitakyūshū's women's association and its predecessors was never disregarded in the local newspapers, but instead received wide, positive coverage from 1963 onwards in the local and national media. Thus, it can be argued that the cycle of female activism and positive newspaper coverage, both of which were on much higher levels than in other localities, greatly accounted for the higher salience and success of Kitakyūshū's female anti-pollution movement, as compared with other Japanese cities.

With the exception of Timothy George's case-study-based research on the role of media in the Minamata Disease Victim's Movement in *Minamata: pollution and the struggle for democracy in postwar Japan'* (2001), academic investigations on how the media influenced the development of environmental consciousness and supported the success of anti-pollution movements are sparse. This is mainly due to two assumptions: firstly, it is proposed that the Japanese media addressed pollution only sporadically before the 1970s, and secondly, it is believed that Japan's largely conservative media organs, which have tended to back government policies, infringed rather than supported civic anti-pollution activism until the 1970s or 1980s. However, as this chapter will reveal, this was not the case in Tobata. In the following, it will be thus analysed why the media supported the *Give Us Our Blue Skies Back* movement, and how positive media coverage contributed to the women's success.

VIII.II Outline and Methodology

This chapter investigates how pollution was framed in the print media between 1945 and 1970, at a time when smoke was largely regarded as symbol of economic growth and modernisation. It analyses how the national and regional daily print media framed pollution and the environment, and how pollution laws, emission-control efforts by industry, as well as environmental movements, were depicted in the newspapers. It thereby explores media's effect on the rise of environmental protest movements and in creating environmental consciousness amongst Kitakyūshū's citizens.

Studies on the rise and development of Japanese environmental protest only insufficiently examine the media's role.[373] This is mainly due to two assumptions: firstly, it is proposed that the

[373] One of the exceptions is Timothy George, who highlights the effects of media coverage on pollution and the Minamata Disease victims' movement in *Minamata: pollution and the struggle for democracy*. George highlights the effects of media coverage on pollution and the victims' movement in Minamata, where mercury poisoning from the Chisso Company crippled parts of the local population at least between 1956 and the early 1970s. George concludes that due to increasing (supportive) media coverage, the Minamata Disease became a national issue around 1968, the same year in which ostracism amongst the locals changed to supportive action around Japan. This decisive turn in common conception of pollution was largely due to positive media coverage, mainly concerning and triggered by the lawsuits Minamata's victims fought in local and national courts. Whilst George reveals that supportive mass media

Japanese media addressed pollution only sporadically before the 1970s, and secondly, it is believed that Japan's largely conservative media organs, which tended to back government policies, infringed rather than supported civic anti-pollution activism until the 1970s or 1980s. As the only in-depth qualitative analysis of newspaper coverage on pollution and environmental issues during the 1950s and the high-growth period of the 1960s, this chapter hopes to shed new light on the rise of environmental consciousness and civic movements before 1970.

The present analysis combines elements of media theory and social movement theory, displaying the media's triple role of setting the agenda, framing the topic, and exerting pressure on parties in power.[374] By combining quantitative and qualitative elements, it is possible to give an in-depth analysis of how pollution became part of the public agenda in the 1950s and 1960s. It will be highlighted that environmental consciousness had already emerged amongst social elites such as journalists by the mid-1950s, spreading amongst the common population from the first half of the 1960s.

The analysis is divided into three parts. The first part provides a short analysis of the media in Japan between 1945 and 1970, investigating their role in Japanese society. It highlights the high circulation and outstanding influence of Japanese newspapers in shaping public discourse in the 1950s and 1960s. The second part provides a detailed discourse analysis of pollution in four Japanese mainstream newspaper, Asahi Newspaper, Yomiuri Newspaper, Mainichi Newspaper (West Edition), and West Japan Newspaper, between 1953 and 1970, combining quantitative and qualitative research. Based on a systematic evaluation of several hundred articles related to public nuisance in search engines and manually at the Kitakyūshū City Literary Archives, it discusses the changing perceptions on pollution, especially soot and smoke, in the 1950s, showing that the journalistic elites, as well as the Japanese population, were far more critical of pollution than commonly assumed. It proposes that the print media played an important role in their function as agenda-setter regarding the dangers of pollution. The last and largest third part investigates how the discourse on pollution changed and intensified from 1963. Using qualitative and quantitative elements, it shows that whilst pollution was predominantly discussed under the framework of human health up to 1962, the discourse on pollution started to include topics such as human rights as well as destruction of the natural environment from 1963.

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greatly contributed to the success of the Minamata movement in the late 1960s, he fails to account for media coverage on anti-pollution movements before the mid-1960s. Furthermore, his analysis is restricted to how the media supported the financial compensation claims of the victims, rather than focusing on a discourse analysis of pollution in newspapers and the emergency of environmental awareness.
George, *Minamata: pollution and the struggle for democracy in postwar Japan*.

[374] Adopted from W.A. Gamson and G. Wolfsfeld, 'Movements and media as interacting systems', *Annals of the American Academy of Political and Social Science*, 528 (1993), pp. 114-125.

It highlights that the discourse developed not only in intensity but also in its progressive nature, focusing on modern issues instead of purely health-based worries. It includes a critique of modernity, and highlights the beginning of an environmental consciousness amongst selected journalists and parts of the common population. The third part furthermore reveals the supportive reception and framing of Tobata's women's anti-pollution activism in all newspapers.

VIII.III Japanese media between the late 1940s and late 1960s

The media plays a significant role in social movement theory as generator, incubator or circulator of new ideas.[375] According to William Gamson and Gadi Wolfsfeld, social movements benefit from the media's threefold role of 1.) Mobilising political support, 2.) Legitimising (or validating) the issue at stake in the mainstream discourse, and for 3.) Broadening the scope of conflicts.[376] Japan boasts both an extremely literate population and the world's highest per capita circulation of newspapers, leading by a wide margin. In all, its over one hundred newspapers have reached considerably more than half of the Japanese population every day since 1945.[377] Whilst the lack of printing materials had limited the circulation of newspapers in the late 1940s, the four main dailies (Asashi Newspaper, Mainichi Newspaper, Yomiuri Newspaper, and Nikkei Newspaper), combined with local papers, reached a circulation of around twenty-five million already by 1960. As the number of subscriptions surpassed the number of households by eight percent in 1960, and by twenty percent in 1970, it can be assumed that most Japanese citizens had access to at least one print media at home.[378] With the large majority of Japan's sixty-five million adults (aged fifteen and over) reading newspapers in 1960, the media's extraordinary role in shaping public discourse cannot be denied.[379]

With the end of the Allied Occupation in 1952, Japanese media regained its independence and all censorship was lifted, making it a promising source to assess public perception and the general discourse of the environment between 1945 and 1970. Despite the independent of the media after 1952, the Japanese media system had remained relatively restrictive, limiting access to the member of the Press Club (*kisha kurabu*). In other words, independent reporters, who might have had an interest in publishing on pollution in the 1950s and 1960s, would not have been able to get access to the main media outlets' information.

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[375] Gamson/Wolfsfeld, 'Movements and media as interacting systems'.
[376] Ibid.
[377] P. Norris, *A virtuous circle: political communications in post-industrial societies* (Cambridge, 2000).
[378] Ministry of Internal Affairs Japan, 'Tōkei: dai nijūrokushō: bunka/rejaa [Statistical Data: Chapter 26 - Culture and Leisure]', http://www.stat.go.jp/data/chouki/26.htm.
[379] Ibid.

Not only print, but also audio-visual media were highly popular in the 1950s and 1960s. Around 1960, the majority of Japanese households had succeeded in acquiring the 'three holy treasures' of modern life most housewives were longing for: an electric washing machine, a refrigerator, and a (black-and-white) television.[380] With GNP (and thus household income) growing by around 10 percent per annum between 1955 and 1970 and NHK introducing colour television broadcast, many black-and-white TVs were replaced by brand-new colour TVs in the 1960s, which rendered watching TV even more attractive to large parts of society. By 1962, over 10 million TV sets had been sold, and by 1965, Japanese households have signed over 20 million TV reception contracts with NHK.[381] Whilst studies on the use of TV in Japan's 1950s and 1960s are rare, it can be assumed that the TV played a central part in many households, and that television had a great potential in shaping public opinion. Especially TV documentaries, which emerged in the late 1950s, largely due to a revision of the Broadcast Law in 1959 which demanded a 'consistent balance in programming' consisting of a 'mixture of news, educational, cultural and entertainment programs' , were able to greatly influence the population.[382] As a new form of medium not only for the viewer, but also for the producers, it allowed room for experimentation. Many liberal or left-wing film directors of the 1960s like Nagisa Ōshima, Masahiro Shinoda and Shohei Imamura, who initiated the 'Japanese New Wave' (*nūberu bāgu*) movement of socio-critical films, started their career in TV, where they had produced documentaries about contemporary problems, including pollution, since the late 1950s. In other words, the TV posed a channel for (liberal, young) directors to express social criticism, and, considering the strong impression images of pollution must have purveyed on TV, was the perfect medium to protest against industrial pollution.

As this chapter highlights, the print media (newspapers), and especially TV shows started to report intensively on Tobata's women's activism. Whilst the majority of Japanese newspapers are, with few exceptions, conservative and government-conform, the newspapers articles from the 1950s and 1960s analysed for this chapter predominantly displayed a supportive attitude regarding the *Give Us Our Blue Skies Back* movements. Despite being a national channel financially and institutionally dependent on the national government, NHK furthermore displayed significant interest in Tobata's women's activism, revealing that Japanese audio-visual media were substantially less conservative and more supportive of civic activism regarding pollution than often assumed.

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[380] J.W. Dower, 'Peace and Democracy in Two Systems', in A. Gordon, *Postwar Japan as history* (Berkeley, 1993), p. 3-33.
[381] W. Manzenreiter and J. Horne, 'Leisure and consumer culture in Japan', *Leisure Studies*, 25:4 (2006), pp. 411-415.
[382] NHK, '50 years of NHK television', accessed 17 February 2017 at https://www.nhk.or.jp/digitalmuseum/nhk50years_en/history/p09/index.html

In the following, the role of the media for the emergence of environmental conscious in general, as well as for the success of the *Give Us Our Blue Skies Back* movement shall be investigated, starting with an quantitative analysis of the coverage on pollution in the Asahi Newspaper between 1945 and 1970. It will be followed by a qualitative analysis of four major newspapers on pollution in the 1950s and 1960, before investigating how Tobata's women and their activism were depicted in newspapers and on TV.

VIII.IV Quantitative analysis of 'pollution' in Asahi Newspaper, 1945-1970

As previously discussed, the media occupies an agenda-setting function. By addressing pollution frequently and prominently in the newspapers, the audience comes to consider the issue to be important. A higher salience of an issue often increases the understanding and interest. Thus, frequent discussion of pollution in the daily print media in Japan between 1945 and 1970 can be considered a sign that the issue received interest amongst a considerable part of the population.

To analyse the salience of pollution-related issues, this chapter examines the occurrence of the most commonly used words related to pollution and the environment, namely *kōgai* (public nuisance), *taikiosen* (air pollution), *sōon* (noise pollution), *kankyō* (environment), *akushū* (pungent smell), *baien* (soot and smoke), and '*smoggu'* (smog), both in the title and the main text, in the electronic database of Asahi Shimbun between 3/9/1945 and 31/12/1970. The keywords were selected according to the definition of *kōgai* by the Japanese government, which includes seven areas: air pollution, effluent pollution, soil pollution, noise, vibration, bad odour, and land subsidence. As land subsidence, soil pollution and vibration only played a minor role in discussions on pollution between 1945 and 1970 in Tobata, these three terms were excluded from the search, and replaced by two other pollution-related terms that were discussed in Kitakyūshū in the 1950s and 1960s, smog (*smoggu*), as well as soot and smoke (*baien*). As the term *kankyō* (environment) has numerous connotations such as environmental hygiene (*eiseikankyō*) and was predominantly not used to refer to the natural environmental until 1970, it was excluded from the search, and all articles were manually checked for their relationship with the broader topic of environmental pollution. Asahi Newspaper was selected for two reasons. First, it was the dominant newspaper in the 1950s and 1960s, providing a representative coverage of pollution with minimal ideological difference to other major newspapers, as personal archival research has revealed. Second, it is one of the few fully-archived online resources that can be accessed at

reasonable cost. For a more representative result, a non-exhaustive manual search of the Asahi Newspaper, Yomiuri Newspaper, Mainichi Newspaper, and West Japan Newspaper was executed in the Kitakyūshū City Literary Archives. The combined manual and electronic search resulted in 1,147 articles that were scrutinised.

The state of the environment after the end of World War II was devastating. Forests, land and mountains had been exploited for warfare, and the production of weaponry and machinery since the 1930s greatly polluted rivers and skies. However, critical media engagement with the aforementioned issues was rare in the immediate post-war years. The database search from the Asahi Newspaper database revealed that pollution was first mentioned in regard to noise in 1948 (three times), 1949 (one time) and 1951 (one time). This is also displayed in the common trend that pollution issues were only sparsely discussed in Asahi Newspaper until around 1963, before gaining some prominence in the mid-1960s, and becoming a salient topic between 1968 and 1970.

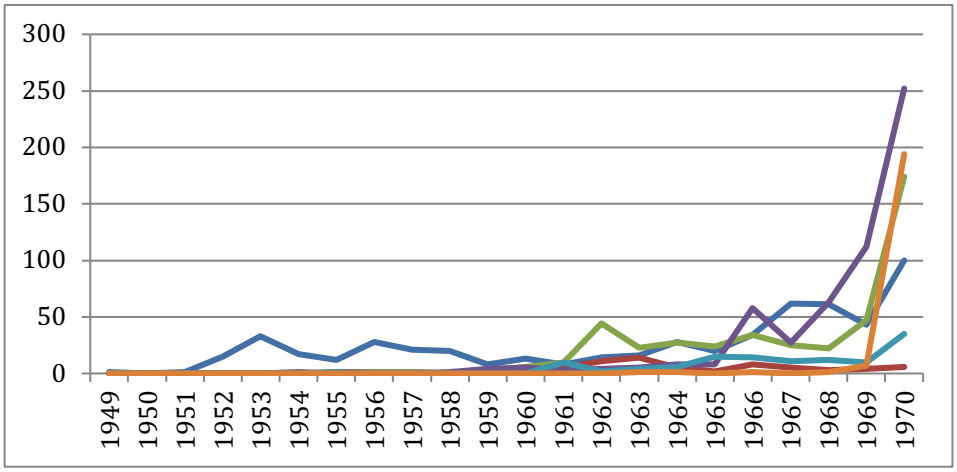

Fig. 39: Number of articles on different forms of pollution in Asahi Newspaper, 1945-1970, not including the search term *'kōgai'* *(legend: see Graph II)*

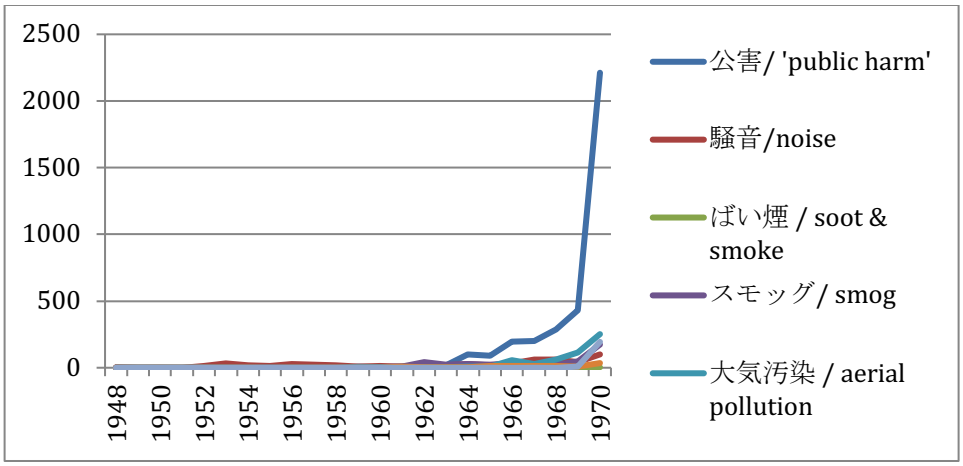

Fig. 40: Number of articles on different forms of pollution in Asahi Newspaper, 1945-1970

Whilst the term *kōgai* showed exponential growth between its first mention in 1950 and 1970, when it was discussed 2,212 times (amounting to roughly six times a day), most other terms do not display a clear growth pattern. Over the whole period of twenty-three years between 1948, when *Asahi Shimbun* published its first story on noise pollution, and 1970, when pollution-related articles amounted to 3,564, the most commonly discussed terms were 'noise' (558 times), 'air pollution' (551 times), and 'smoke' (441 times). Between 1948 and 1961, noise topped all other terms in most years, ranging between zero (1950) and 33 mentions (1953) per year.

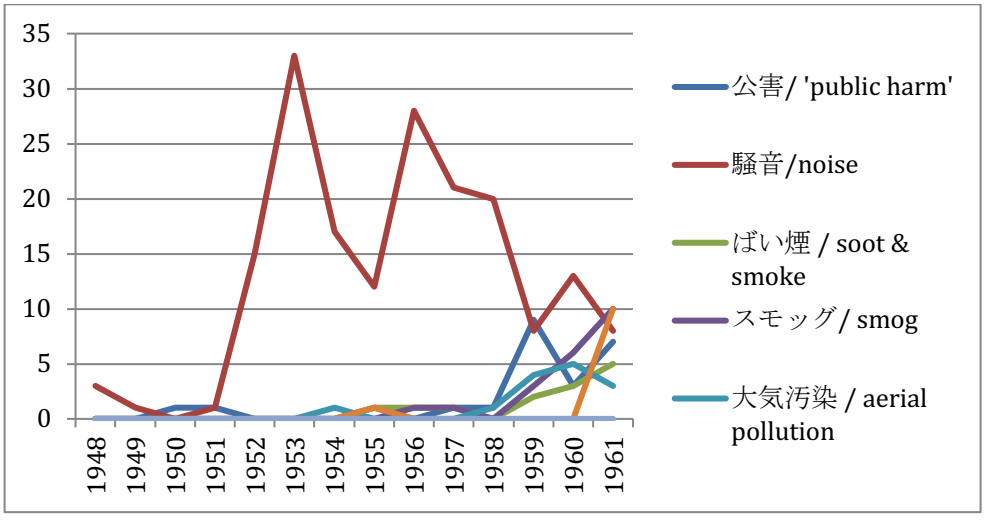

Fig. 41: Number of articles on different forms of pollution in Asahi Newspaper, 1948-1961

Whilst debates surrounding noise pollution dominated most pollution reports until 1961, the topic rarely made it into the newspapers after 1962, when attention shifted to air pollution and smog. Between 1962-1968 smog was discussed on a constant level, approximately two to three

times a month (between 23 and 47 hits per year), whilst air pollution started to become a major issue in 1965 (averaging around seventy articles p.a. between 1965 and 1969). In 1970, in the build-up to the fourteen Pollution Laws passed in December that year, engagement with most forms of pollution, especially air pollution (252 times), effluent pollution (194 times), smog (174 times), and noise (100 times) skyrocketed, and the term *kōgai* was used in 2,212 articles, up from around 300 per annum between 1966-1969. This clearly highlights two points. First, pollution had become an everyday phenomenon by the late 1960s and was intensively discussed by 1970. Second, whilst the vast interest in pollution in 1970 coincided with the passing of the Pollution Laws by the 'Pollution Diet', similar trends are not clearly noticeable for the years 1958 and 1962, when minor environmental laws, for instance the Water Quality Conservation Law and the Soot & Smoke Emission Law, were passed. Even the introduction of the basic Law for Environmental Pollution in 1967 and the beginning of the Four Big Pollution Cases trials in the same year did not lead to considerably higher media attention in the topic. This leaves us with the question of what extent media coverage influenced legal changes in pollution law. In other words, was the far-reaching environmental legislation from 1970 the result of the pressure media was placing on politics, or was the rise in media coverage caused by increasing discussion about pollution and the environment in politics?

In general, it can be summarised that reports on pollution remained relatively sparse until 1968. Whilst the initial focus was placed on noise pollution, attention shifted to air pollution from the late 1950s, accompanying the deteriorating situation in regard to soot and smoke emissions, which stipulated a first legal attempt in 1962. The term 'public nuisance' (*kōgai*) started to become salient from the late 1950s, dominating much of the debate on pollution in the 1960s until the term *kankyō* was coined in relation to the natural environment and took over in popularity in the 1970s.

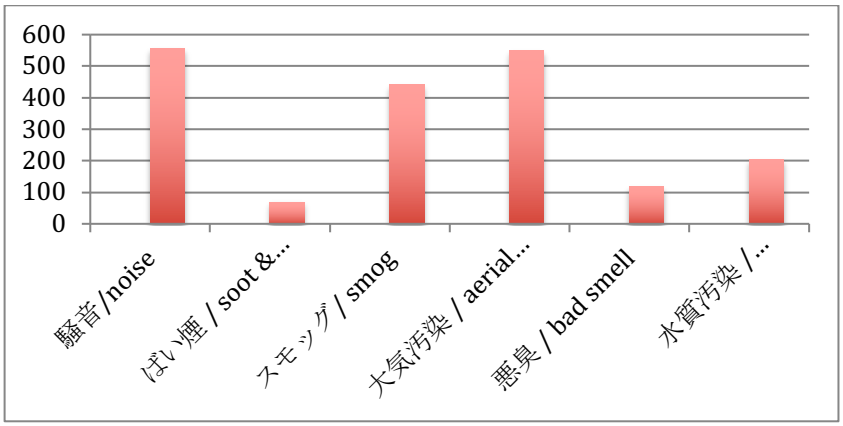

Fig. 42: Number of articles on pollution according to different sources of pollution in Asahi Newspaper, 1948-1970

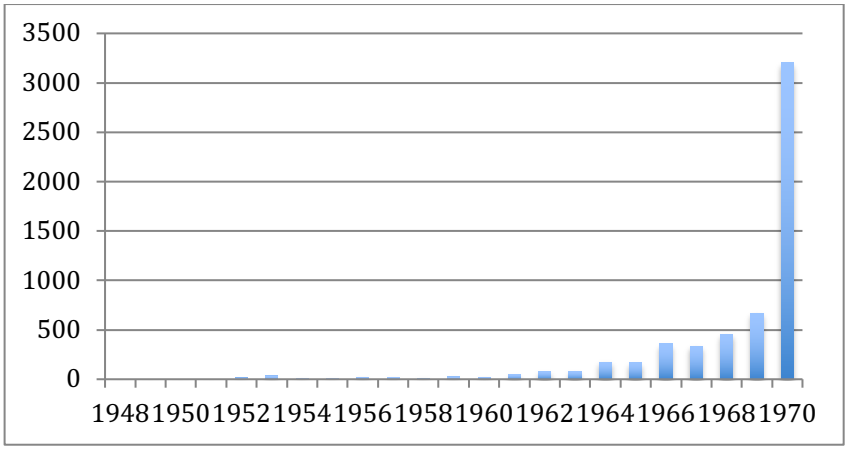

Fig. 43: Combined number of articles on pollution in Asahi Newspaper, 1948-1970

VII.V Discourse analysis of pollution in four major newspapers, 1945-1970

1945-1952: Absence of pollution in newspapers

The Second World War inflicted great environmental destruction upon Japan. The country's ideology of exploiting nature for military purposes and warfare had demanded a great toll on the environment. Forests were cut down, mountains were exploited for copper, and coalmines were overworked to support the army. Furthermore, allied bombings, especially the nuclear bombs dropped on Hiroshima and Nagasaki, destroyed thousands of hectares of fertile land. However, critical engagement with the aforementioned issues in the immediate post-war years was rare in the print media. Whilst most newspapers published throughout WWII and resumed operations soon after Japan's unconditional surrender, despite major shortages in paper, ink and printing machinery, environmental destruction was rarely an issue in newspapers during the early post-war years. There are two practical major reasons for this. First, criticism of the environmental effects of the nuclear bombing was prohibited by the US occupation, making a critical analysis of the huge natural damage during WWII impossible. Second, the late 1940s were characterised by severe food shortages and rationing, forcing some parts of the population to exploit nature to secure survival.

A further explanation for the absence of critical newspaper engagement with pollution is that in most industrial cities such as Kitakyūshū, the environment improved after Japan's unconditional surrender. Due to declining resources and the lack of demand for military goods, which amounted to over ninety percent of wartime iron, cement and steel production, many

industrial facilities did not resume operation after Japan's unconditional surrender in August 1945, or only produced on a small scale due to raw material shortages or defective machinery.[383] For nine years, until 1954, Japan's industrial production remained below pre-war levels, and blue skies reappeared not only in Kitakyūshū, but also across the whole Japanese archipelago between around 1945 and 1948.

This lack of major industrial pollution in the early post-war years, combined with US media censorship and an insufficient awareness of 'post-modern' issues such as human rights and environmental protection is certainly a major reason for the absence of pollution issues in both local and national newspapers until 1948, when Asahi Newspaper published its first report on noise pollution from military airplanes. Until 1953, most articles focused on noise pollution from US Occupation forces, with little discussion of industrial pollution and the environment. The first articles dealing with both noise and high emissions from factories did not appear until around 1953.

It can thus be concluded that between 1945 and 1952, pollution in the form of industrial pollution received very little mention in all four newspapers. Whilst some anti-pollution and environmental movements had already existed during the Allied Occupation, as Iijima shows in *Pollution Japan,* and as the example of Kitakyūshū, where the Nakabaru Women's Association had already conducted anti-pollution activism in 1950 reveals, the newspapers failed to report on it. Over eight years (1945-1952), Asahi Newspaper only devoted twenty-two articles to pollution in the greater sense, most of them on noise.

1953-1962: Rising awareness of noise, soot and smoke as environmental pollution

The years between 1953 and 1962 experienced a rise in journalistic interest in the topic of pollution, starting from a low level. Especially from 1958, articles increased steadily, and whilst not being a mass phenomenon, industrial pollution had received steady coverage with two to three articles per month by the late 1950s. Whilst the initial focus was on noise pollution, with soot and smoke becoming increasingly discussed from the mid-1950s, debates on pollution started to include a wide array of forms and causes from the late 1950s. By the turn of the decade, the general term 'public nuisance' had become a widely recognised term, displaying an understanding of pollution as harmful amongst the general population.

For most of the period between 1953 and 1961, air pollution received considerable attention, second only to noise pollution, as a result of increasing soot, smoke and sulphur emissions, but also in response to the government's legislation on soot and smoke in 1957 and

[383] Hashino, 'Japan's post-second World War's environmental problems'.

1962. However, instead of praising such administrative efforts, journalists highlighted the limitations and loopholes of these first laws and discussed pollution and the government's response to it increasingly critically. Comparing Japan's political response with examples from abroad, foreign accounts on pollution control started to spread in Japan's print media around 1960, highlighting a new transnational approach to environmental movements in Japan.

The four newspapers analysed display similar trends with regards to content and reporting style, with the majority of texts being based on real-life examples regarding people's psychological and physical suffering from pollution. The tone is rather passive and contemplative, without outlining ideas to solve the situation. Also, whilst most journalists displayed a critical attitude on pollution and the government's response, personal opinion papers and suggestions on how to improve the adverse situation are sparse.

Reports on citizens' activism is largely lacking between 1953 and 1962 across Japan, despite increasing efforts by civil society to curb pollution, which suggests that pollution was not yet discussed from an anthropocentric, social standpoint. This general lack of focus on civil anti-pollution in the media also highlights that numerous initiatives may have existed in the 1950s, without the knowledge of the large population.

Although the quantitative analysis provides a rather negative result regarding the salience of pollution issues in Asahi Newspaper between 1953 and 1962, the discourse analysis revealed numerous unexpected tendencies. Whilst newspaper coverage until 1961 remained relatively sparse, the print media took a very critical stance concerning pollution, with journalists pointing out the extreme dangers to human health and society. Since 1953, when the first article on Kitakyūshū's pollution was published in Asahi Newspaper, journalists have critically assessed and commented on the ills of pollution, not only from a medical point of you, but also concerning its negative impact on society. Already in 1953, the print media highlighted the danger of pollution on mental health and did not hesitate to use strong, accusatory language. An Asahi Newspaper article from April 1953, for example, warms that noise pollution can cause schizophrenia, making Japanese citizens 'cripples' *(haijin)*, and in 1957, they attribute the death of a housewife to noise pollution.[384] Harsh criticism was also directed against the central government that 'does not have any policies' against the 'violence' of pollution, arguing that they did not deserve the name 'policies', as they were ineffective 'poor efforts'.[385] In general, journalists of all newspapers were rather outspoken and openly criticised the government for their inertia concerning pollution in the 1950s and early 1960s.

[384] Asahi Newspaper, 'Examining city noise scientifically: No policy against this 'violence': noise > urban disease > schizophrenia > cripples', 1 April 1953.
[385] Ibid.

Whilst little blame was directed towards companies, mainly due to the economy's strong dependency on heavy industries, the newspapers highlighted the contribution by households on rising pollution, calling for each individual to decrease emissions. Such sophisticated argumentations show that already in the 1950s, a well-informed debate of the multi-faceted nature and cause of pollution had taken place in Japanese newspapers.

It is generally believed that the Japanese people were largely in favour of industrial development, at the cost of environmental destruction, at least until the early or mid-1960s. However, this is not entirely true: although city anthems like that of Kitakyūshū glorified the polluted 'seven-coloured sky', national newspapers increasingly questioned 'progress' and pollution. From 1953 onwards, newspapers continuously outlined the negative effects of pollution on the social fabric. A journalist from Mainichi Newspaper argued in 1954 that 'pollution is expected to be the root of insecurity and inequality amongst the population' and that 'industrialisation inflicts social problems and suffering on humankind that are still unsolved by law'.[386] This indicates that the social and political implications of pollution were considered from an early stage, and that pollution was not only discussed from a science-centric perspective, but also in the context of social justice. Such strong criticism of modernisation and the government's responses to pollution is an unexpected finding for early 1950s Japan, and contradicts numerous accounts that suggest that little critical engagement with pollution existed in the 1950s and early 1960s.[387] It also shows that even conservative Japanese newspapers like Asahi Shimbun were much less government-conforming and uncritical than commonly assumed.

Whilst pollution was discussed with an unexpected degree of scepticism between 1953 and 1962, debates tended to focus on pollution's anthropocentric effects rather than on its ecological repercussions. Whilst this does not imply that environmentalist ideas had not appeared in Japan before the late 1960s, it shows that postmodern, post-materialist intellectual engagement with environmental issues to protect nature for its intrinsic value were insufficiently developed between 1945 and 1962 in Japan.

Despite the small number of articles on pollution until 1962, thereby limiting the agenda-setting role of newspapers, daily print media could exert considerable influence on creating a better understanding of the dangers of pollution as well as by sensitising the population for the issues. The media started to frame pollution as a 'social problem' (*shakai mondai*) and opened the floor for the debate of human rights and pollution, as well as environmental concerns, which rose between 1963 and 1970.

[386] Mainichi Newspaper, 18 October 1954.
[387] Barrett, *Ecological modernization and Japan.*

1962-1970: Pollution protest and environmental awareness

With rising industrialisation and doubling GNP between 1960 and 1970, Japan experienced not only higher levels of pollution, including numerous fatal incidents and the occurrence of the Four Big Pollution Cases in the 1960s, but also a higher salience of pollution-related articles in newspapers. Whilst most political scientists attribute anti-pollution movements to the (early) 1970s, newspaper articles on the topic had skyrocketed already in the late 1960s, above all in 1969 and 1970. At least by the second half of the 1960s, reports on pollution had started to occur nearly daily in most newspapers, with over 3,200 articles being published in 1970 in the Asahi Newspaper alone. This unprecedented media interest in pollution was predominantly spurred by the Big Four Pollution Cases, lawsuits, and the central government's legal attempts to curb pollution in 1967 and 1970.

However, even before the turn of the decade, pollution-related newspaper coverage had become an everyday phenomenon, accompanying the development of pollution as one of the most urgent issues to be solved in the early and mid-1960s. Pollution started to dominate life in large parts of Japan, and in 1963, Asahi Newspaper declared *kōgai* the 'word of the moment' (*toki no kotoba*).[388] Citizens increasingly expressed the end of their patience with pollution: 'I'm already fed up with pollution', shouted the title of an article from 22 August 1966.[389] Already by 1963, media coverage on pollution has become so salient that the West Japan Newspaper even started three whole series on it, with articles on different aspects of pollution being published fortnightly for two weeks each. From 1963, articles had become more numerous, lengthy and heated, and authors started to express personal opinions more openly.

Compared to previous years, soot and smoke, as well as noise pollution, received relatively little mention, mainly due to successful efforts to curb these nuisances with technical devices such as particle filters. In contrast, accompanying the rising use of oil and gas, combined with higher production level, smog as well as SOx emissions started to dominate articles on pollution in the latter half of the 1960s, with water pollution skyrocketing in 1969 and 1970. This change in newspaper coverage reflects the changing nature of pollution, which had become more 'chemical', and often invisible, in the 1960s.

As highlighted later, the articles between 1963 and 1970 were not only more critical, but also more detailed and pro-active, revealing problems with current political management and outlining possible solutions to curb pollution. Another new factor in the reports regarding

[388] Asahi Newspaper, 'Kōgai: toki no kotoba' [Public nuisance: word of the time] 12 December 1963.
[389] West Japan Newspaper, 'Mō gaman dekinai' [I cannot bear it anymore], 22 August 1966.

pollution is that citizens' movements and other forms of anti-pollution activism were taken up by the media, with rather lengthy descriptions of their activities and portraits of individual leaders.

Apart from a more engaged journalistic style of writing, the period between 1962 and 1970 also experienced new topics and the beginning of a change in perception of pollution. The failure of the government to curb emissions or to provide effective policies gave rise to a growing discourse on human rights and pollution. Thus, whilst pollution in the 1950s was largely framed as a public nuisance and health risk, a new discourse of pollution as infringement of human rights appeared from around 1963. Against common perceptions that civic movements and the mass media were discussing pollution largely pragmatically in terms of financial compensation and damage to human health, the Ministry of Welfare and the Mainichi Newspaper jointly started a debate on pollution as a human rights violation in 1961. Over one-and-a-half pages, the Ministry of Welfare discussed the topic of 'Public Nuisance and Human rights', arguing that industrial pollution limits personal freedom and thus violates human rights.[390]

Parallel to the discussion of pollution from a post-modernist perspective in regards to human rights, ideas of pollution as an environmental risk and hazard for biodiversity were increasingly voiced. In the *Public Nuisance* series by the West Japan newspaper in July 1963, a whole article on 'Pine Trees Appealing' analysed pollution's detrimental effects on flora and fauna.[391] This new shift from an anthropocentric to a more holistic discussion of pollution is unexpected as it is generally proposed that environmental consciousness did not appear before the 1970s in Japan, and that pollution movements remained largely unconcerned with the ecological ideas. However, the newspaper articles clearly demonstrate that already by 1963, pollution had become associated with environmental destruction, and it was increasingly argued that the environment should be protected for its intrinsic value. This shows that environmental consciousness, or even an environmental turn, had already emerged in the mid-1960s in Japan. Similarly unexpected is the emergence of environmental economics in the West Japan Newspaper series on pollution from July 1963, where the author argues that pollution protection, and more advanced green technologies, should be implemented to trigger regional economic growth. Such an argument that environmental protection can be economically viable is highly innovative and precedes the emergence of environmental economics as an academic discipline. Apart from Ube City, where major local industries installed dust filters as part of a campaign of concerted action in 1954 for economic reasons, such an innovative discourse on the environment is unique and shows the high level with which pollution was discussed in 1964.

[390] Mainichi Newspaper, 27 July 1961.
[391] Ibid.

Social problems, civil movement, machi-zukuri, and good society

Whilst pollution was repeatedly described as a social problem already in the 1950s, such a discourse had become commonplace by the mid-1960s, and an increasing number of articles analysed pollution from the perspective of civil activism and *machi-zukuri* (town development by civil society). In July 1964, Asahi Shimbun, Japan's largest newspaper, declared that 'pollution has become a social problem that cannot longer be ignored, but the government, and industry cannot advance without acknowledging pollution'.[392] The urgency in the author's voice, who pressures the government and private enterprises to act, is noteworthy and shows how common pollution criticism has become already by 1964, even in Japan's major newspapers.

Accompanying the rising discourse of pollution as a social problem, numerous newspapers focused on aspects of civil society and its role in combatting pollution, especially in 1963 and 1964. This new democratic interpretation of anti-pollution protest becomes evident from the high number of references to the activists as *shimin*, citizens. In 1964 and 1965 alone, the democratic term *shimin* was used at least twenty-five times in relation to pollution in Asahi Newspaper, which highlights a change in the discourse of anti-pollution protest from more financially-motivated protests by 'residents' (*jūmin*) to a democratic movement and citizens' participation in politics. However, what is different from ideological concepts of civil society is that the focus in the newspaper is not predominantly on civil *society*, but on individual *citizens*. Journalists highlighted that hundreds of thousands of individuals were suffering from pollution, motivating citizens or small citizens groups to act. Thus, whilst anti-pollution activists were regarded as citizens engaged in democratic practice, the discourse on their social participation is not framed in the Western-centric ideological concepts of 'democracy' and 'civil society'. Rather, the 'citizens' are understood as 'common people', acting as individuals or in smaller groups to promote and spread mutual aid in the local community without the involvement of government, political philosophers, or intellectuals.

The high occurrence of the term *shimin* in Japanese newspapers is noteworthy, as current scholarship only insufficiently suggests a strong existence of an elaborate civic consciousness behind social movements in general, and anti-pollution-movements in particular, in the 1960s. The newspaper analysis highlights that the term *shimin* is not a product of the 1970s, but had appeared already in the 1960s in considerably high numbers. Whilst Simon Avenell's focus in his discourse analysis on civil society in *Making Japanese Citizens* is placed on the period after 1984, a comparison shows that whilst the term *shimin* was more extensively used in 1984 than in 1964

[392] Asahi Newspaper, 3 July 1964.

in the Asahi Newspaper, the difference is not complete, with one-hundred mentions in 1984 as compared to twenty-five mentions in 1964 and 1965.[393] This reveals that a more open debate of citizens' participation in anti-pollution politics had existed in the 1960s than previously assumed.

In the case of the anti-pollution movement by Sanroku's women's association in 1963, where the women would hang out pieces of starched and unstarched white cloth in seven locations in Tobata to measure the discolouration due to smoke and soot, their activism was referred to as '*shimin undō'* (citizen's movement), rather than as study (*gakushū*) by the local media. Furthermore, the Mainichi Newspaper also asked its readers to start a citizens' movement in light of the inefficiency of government policies in 1966. 'Because the results [of government policies against pollution] are so shallow, let's evict pollution through a civic movement.'[394] The author's appeal to the readers to start a citizens movement (*shimin undō*) that would bring about a more effective emission law is highly surprising, not only because it contradicts the assumption that newspapers tried to inhibit civil movements, but also because the author displayed a sincere belief that citizens could bring about a new emission law.

The present analysis demonstrates an increasing interest in anti-pollution movements on the part of the print media between 1963 and 1970, with a rising focus on citizens' movements. Whilst until 1962, many articles were rather short and descriptive, the coverage had become more analytical and critical by the mid- to late-1960s. Whilst most articles in the 1950s focused on more simple forms of pollution such as noise, soot and smoke, the 1960s saw a rise in discussions of the complex nature of pollution, and its wide repercussions such as smog and toxic effluents. The most important general development, however, was that the focus shifted from individual examples of suffering, which dominated articles in the 1950s, to the social and economic impacts of pollution, arguing that pollution was a social ill, a 'scary invisible monster' (*kyōfu sugatanaki keibutsu*) that needed to be stopped by concerted citizens' efforts.[395] Already from around 1963, two years after 'public nuisance' (that is, soot, smoke and noise pollution) was legally defined as human rights violation by the Department of Justice, pollution was discussed in regard to human rights, highlighting the infringements on people's freedom. This change from a more health-oriented debate in the 1950s to a discourse on human rights, democracy and 'good society', coupled with a rising environmental awareness, has been overlooked by the great majority of current scholarship. Instead, the present research has presented a different picture of Japanese society after 1962. The picture is highly progressive in its understanding of pollution and politics,

[393] S. Avenell, *Making Japanese citizens: civil society and the methodology of the shimin in postwar Japan* (Berkeley & London, 2010).
[394] Mainichi Newspaper, 1 February 1966.
[395] Asahi Newspaper, 15 December 1964.

advocating new concepts of 'good society' and democratic politics. The analysis furthermore reveals that instead of inhibiting social movements and anti-pollution protest, major Japanese newspapers have been predominantly supportive of anti-pollution movements, and even appealed to the Japanese people to start further grassroots citizens' movements to change society, politics, and law.

XIII.VI Radio and TV coverage on the *Give Us Our Blues Skies Back* movement, 1963-1965

Having discussed the role of Japanese newspapers in the framing of pollution and in creating 'supportive masses' for Tobata's *Give Us Our Blues Skies Back* movement, the following part will focus on the impact of radio and TV on the women's success. Whilst the largest majority of TV and radio channels, including NHK, only started to archive their production in the 1970s, the *Give Us Our Blues Skies Back* research reports I and II include a list of the women's TV and radio appearance. Whilst some information is given regarding the content, making it possible to analyse the TV and radio coverage between 1963 and October 1966, any information on audio-visual media coverage after October 1966 (when the *Give Us Our Blues Skies Back* II was printed) is lacking.

Triggered by the exposition of their anti-pollution research in the New Life Exhibition in October 1963 and the positive response from amongst citizens and the local newspapers, radio stations and TV channels started reporting on the anti-pollution activities of Tobata's women's association. Less than one month after the women presented their research on pollution in an exhibition in Tobata's city hall, the women's activities were introduced both on TV (KBC, 20 November 1963) and on radio (NHK, 24 November 1963).[396] Interestingly, it was not the minor local broadcasting agencies, but Kyūshū Asahi Broadcasting's KBC TV channel and the public NHK (Japan Broadcasting) that initiated coverage on Tobata's women. Furthermore, on top of radio reports, NHK also published the women's activities on TV one month later (26 December 1963) to give the viewers a better understanding on Tobata's anti-pollution activism.[397]

This coverage of the women's anti-pollution research on both NHK radio and NHK TV displays the high importance and positive evaluation national news channels had attached to the women's activism. Especially NHK praised their extraordinary civic activism and became a

[396] KBC TV, aired on 20 November 1963 (Kyūshū Asahi Broadcasting); NHK Radio, aired on 24 November 1963.
[397] Due to lacking archival practice, it cannot be established if it was the Kyūshū branch of NHK or the national sender that reported on it. NHK TV, 26 December 1963

continuous supporter of the women's movement.[398] Whilst the lacking archival practice by TV and radio stations in the 1960s forgoes an in-depth qualitative content analysis of the radio and TV shows, interviews revealed the great support the women had received from the new media, TV.

Fig. 44, left: A member of Tobata's women's associations being interviewed in front of the research panels at the New Life Exhibition in 1965
Fig. 45, right: Three activists from the Sanroku Ward Women's Association discussing their anti-pollution movement on RKB television on 20 November 1964. Even before the main concerted *Give Us Our Blue Skies Back* efforts, Sanroku's female pollution research was aired on TV or radio nineteen times in 1963 and 1964 alone. Pictures from *Give Us Our Blue Skies Back* I (1965)

Whilst initially, in 1963, the majority of TV and radio programmes just reported on the women's activism in a neutral tone, introducing them to a larger audience, from 1964, an increasing number of channels started to host Tobata's women in talk shows. Instead of being merely interviewed about their movement, they were introduced as pollution specialists as well as critical discussants on the topic.[399] In September 1964, they even appeared next to Kitakyūshū's mayor Hosei Yoshida on a TV debate. Whilst recordings of this show do not exist, the title 'Discussions with the Mayor' suggests that they were invited to question the mayor on air, negotiating possible methods to curb pollution.[400] The confidence with which Tobata's women were giving TV interviews is revealed in Fig. 45, depicting representatives from the Sanroku women's association on RKB television on 20 November 1964.[401]

With growing media coverage of the women's activities, reports have become increasingly detailed and elaborate: reporters started to join Tobata's women's association on

[398] Interview with Misako Katō, 17 April 2012.
Whilst the TV and radio shows were neither archived by the senders, nor the women's association or Tobata city, the women's minute list of TV and radio appearance in their Give us Our Blue Skies Back reports
[399] Interview with Eidai Hayashi, 12 May 2012. NHK Radio, 'Participation in the discussion round of Mainichi Shimbun', 7 February 1964.
[400] TNO TV, 'Discussions with the mayor', 21 September 1964.
[401] RKB TV news, 20 November 1964 (RKB Mainichi Broadcasting).

their on-site inspections of local companies, where the female activist checked the compliance with legal environmental standards and the Pollution Control Agreements. In February 1965, NHK TV devoted a report on Tobata's women's factory inspections and laboratory research.[402] Following the women to rather intimate locations such as Nose's laboratory shows that reports on the women's activism have surpassed superficial description, but instead tried to depict their movement from the root. Focusing not only on their practical activities, but also on their ideological motivation and their impact on civil society, TV publicity proved to be a highly important tool to make Tobata's women heard outside their regional community whilst at the same time increasing their local name recognition.

Similarly, NHK TV invited representatives from Tobata's women's association to discuss pollution in a committee of 13 experts in the civic hall of Tobata's Sanroku ward in November 1965, reporting on it in their Studio 102 (*stajio 102*) morning programme.[403] Studio 102, a 5-min popular prime time programme in which reporters introduced regional activities to a national audience after the 7 am news, devoted a show on the anti-pollution activism in Tobata, reporting from Tobata's civic hall. This impressively highlights both the high recognition Tobata's *Give Us Our Blue Skies Back* movement received from audio-visual media and the room for critical engagement with current social issue new TV programmes such as Studio 102 (established in 1965) provided for civil society.[404]

Between 1963 and 1965 alone, the anti-pollution activism by Tobata's women's association was aired over fifteen times on regional and national TV and radio.[405] What is noteworthy is that these new media channels preceded most newspaper's detailed coverage on the women's activism, which only started to report extensively from around 1965, peaking around 1968/1969. This reveals that radio and TV channels might have had a more liberal stance than newspapers and due to their novel character.

Through the newly emerging TV channels, the activities by Tobata's Pollution Committee were introduced to a larger audience that surpassed the local community, establishing them both as considerably influential local movement and experts on pollution. By giving the women credibility as social movement and scientists, as well as by introducing their efforts on a national level, TV and radio played a significant role in Tobata's women's movement as they helped increase their acceptance amongst the local population and local administration.

[402] NHK TV, 7 February 1966, on inspections of factories, and the women's visit of their research laboratory
[403] NHK TV, 'Studio 102', 16 November 1965, filmed in Sanroku's civic hall, aired nationally.
[404] Ibid.
[405] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Give Us Our Blue Skies Back I* and *II.*

VII.VII Summary

This chapter has revealed that critical engagement with pollution both in the media and amongst the Japanese population was not a product of the 1960s, but that already by 1953, one year after the Japanese media gained their independence, journalists as well the common population debated pollution in the print media. Whilst small in scale, the articles published in four Japanese daily newspapers (Asahi Newspaper, Mainichi Newspaper, West Japan Newspaper, Yomiuri Newspaper) surprised with their critical view on pollution as well as with the intensity with which the journalists expressed their highly progressive views on pollution. Whilst pollution and anti-pollution movements in Japan's 1950s have largely been neglected by scholars, the present quantitative and qualitative newspaper analysis reveals that media in post-war Japan had critically engaged with the limits of progress, the health risks of pollution, and the social ills soot and smoke entailed from a very early stage, accompanying the rise of industrial pollution in the late 1940s and early 1950s.

At a time when pollution was believed to have been primarily regarded as symbol of progress, a highly welcome sign of modernisation rather than a necessary evil accompanying Japan's rapid development, journalists from Japan's predominantly conservative, often government-conformist newspapers had already started to point out the dangers of pollution. This is a unique finding, as the general consensus on the 1950s, extending at least into the first half of the 1960s, is that pollution was largely welcomed. City anthems not only in Yahata and Tobata, but also in other Japanese industrial cities, greeted pollution as sign of progress and prosperity, and in 1958, famous filmmaker Keisuke Kinoshita extolled Kitakyūshū's polluted, 'seven-coloured' sky on screen. The discourse analysis of the newspaper, however, revealed that critical voices had existed since the early 1950s, and gained in influence with time, cumulating in widespread anti-pollution movements in the second half of the 1960s.

This chapter has furthermore highlighted the changing definition of pollution. Whilst in the late 1940s and 1950s, pollution was mainly defined as noise pollution, pungent odours and vibration, with high soot and smoke exhausts receiving increased negative media attention from the late 1950s, water pollution, smog and air pollution became the most commonly discussed forms of pollution in the late 1960s. This fact is also reflected by the fact that the Ministry of Justice defined public nuisance as 'soot, smoke, and noise pollution' when it gave pollution the status as human rights violation in 1961, whilst later definitions included other forms such as effluents, exhaust gases and smog. Changes in the pollution discourse appeared not only in regard

to the forms of pollution, but also in terms of its effects and possible solutions. Whilst for large parts of the 1950s pollution was mainly interpreted as a health risk, voices that highlighted its detrimental effect on society appeared from around 1958. Similarly, whilst science was hailed as the most promising instrument for solving the pollution crisis in the 1950s, arguments proposing that it was civil society and social movements that could play an important role in curbing pollution developed from around 1963.

In the mid-1960s, the focus of attention was placed on the social and economic impacts of pollution, arguing that pollution posed a danger to society and its most fragile units, namely families and smaller communities, and that it needed to be stopped by concerted citizens' efforts.[406] Already from around 1962, pollution was discussed in regard to human rights, highlighting the infringements on people's freedom. The rising environmental awareness has been overlooked by current scholarship, and displays a different picture of Japanese society after 1962. This culture is highly progressive in its understanding of pollution and politics, advocating new concepts of good society and democratic politics.

Whilst the main focus of this chapter was on newspapers, other media such as radio and television also played an increasing role in advancing civil society and environmental consciousness. Radio and TV coverage on Tobata's women's associations' anti-pollution movement revealed substantial support amongst audio-visual media regarding the women's anti-pollution movement since 1963. It can thus be concluded that the media played a considerable role in promoting civil society and environmental awareness in the 1960s, and contributed to the success of the anti-pollution movement not only in Kitakyūshū, but also in other Japanese localities.

[406] Ibid.

CHAPTER IX: ECONOMIC GROWTH, CONSUMERISM, and new concepts of modernisation and 'just society' amongst Tobata's women

IX.I Female concepts of modernity: ideology and subversive activism for a 'just society'

This chapter provides a detailed insight into the women's motivation for their anti-pollution activism, analysing their ideology. It will be highlighted that Tobata's women displayed a largely different interpretation of modernity and 'good society' as compared to the state's official narrative. Whilst the members of Tobata women's associations did not reject modernity per se, they voiced criticism regarding the Japanese government's unquestioned promotion of economic 'progress' at the expense of society. Their activism pointed out that the current official policies failed to divide the newly acquired wealth equally amongst the population, but largely benefited industrial corporations. In their writings, the women' association asked major emitters of soot, smoke and toxic gases to pay for the damage, proposing that it cannot be the general population that has to bear the negative side effects of 'progress' whilst the business community and the state benefitted from unhindered pollution. The women thereby inexplicitly proposed the internalisation of negative externalities such as environmental destruction and deteriorating health of the population. The women used arguments by environmental economists, demanding that companies should not be able to pollute the environment for free, but that the negative externalities should be reflected and paid for by corporations, such as in contributions to the medical bills of pollution-induced patients or in form of an environmental tax.

The women's ideological motivation reveals that women, who in the 1960s were often described as embracing consumerism, with their energy focused on the acquisition of the 'three sacred treasures' of modern life, were in fact much more critical of 'modernity' and of the state's motivation to increase society's materialist desires and thus consumption. As the writings and debates of Tobata's women's societies highlight, local women have been significantly more sceptical of the government's concepts of progress and modernity and their economic policies than often assumed, arguing that 'modernity' should only be supported if its benefits are shared equally amongst the population. Tobata's women's associations thereby promoted their concept of a 'just society', in which nature is not exploited for capitalist purposes, but where industry and government show responsibility for the population and where citizens support each other in their endeavour for equal treatment. As this chapter points out, Tobata's women not only questioned the government's interpretation of modernity, but they also lamented that the common population had received little of the newly acquired wealth, arguing that the nation remained poor whilst the state and industry prospered.

This chapter discusses ideas of modernity, Japan's ideology of economic progress, state-steered consumerism, rising equality between the sexes, and female engagement in civil society. The case of Tobata's women's activism reveals that, I contrast to general assumptions, Japanese females were often less receptive to the state's meta-narrative of progress, and instead critically analysed the concepts and even acted subversively, using the government for their anti-pollution activism.

VIII.II Women, the arrival of electric home appliances, and civic participation

The changing-point between the 'old' and 'new' Japan is widely seen as being 1955. The measurement for the end of 'post-war Japan', and with it austerity amongst Japan's war survivors on a personal level, and limited political independence on a national level, was economic growth. When the post-war economy surpassed pre-war levels in 1955, the Japanese bureaucrats proclaimed the end of the post-war period with the words '*mohaya "sengo" dewa nai'*. This idea of 'post-war', which triggered associations of political and economic inferiority, fuelled hopes that Japan was entering a 'modern era', and sparked expectations that Japan would grow into a global power. 1955 being the 'best year of the post-war economy' (*sengo keizai sairyō no toshi*), wiping out connotations of a post-defeat nation, and with Japan's admission to the GATT (General Agreement of Tariffs and Trade), a new window for Japan to develop into a global player was opened. In addition to rising exports, spurred by *pull factors* such as the Korean War, as well as new sophisticated, competitive technological goods as *push factor*s, domestic consumption started to rise from the late 1950s. Whilst a mass consumer society only emerged around 1960, the Ministry of International Trade and Industry's (MITI) cleverly engineered strategy to increase consumption by encouraging increased production for domestic use, a policy manifested in the 'citizen's car project' proclaimed in 1955.[407] Car production skyrocketed between 1955, when 13,000 cars were produced, and 1970, when over 3 million vehicles received the tag 'Made in Japan', giving rise to the age of people's cars (*kokumin jidōsha no jidai*). In other words, together with iron and steel construction materials for new buildings, automobile production significantly contributed to the post-war growth of Japanese steel companies such as Yahata Steelworks in the late 1950s, which became the first of Japan's 'designated national industries'.[408] Whilst the idea of motorisation largely appealed to men, most advertised consumer goods clearly targeted women, especially mothers and housewives. Industry and bureaucracy (predominantly MITI) instilled the dream of a new age of electric home appliances (*katei denka*

[407] Dower, 'Peace and Democracy in Two Systems'.
[408] Hashino, *Japan's post-second World War environmental problems.*

no jidai), which the growing mass media, such as weekly magazines *(shūkan),* spread amongst large parts of Japan's female population. Japan's ancient 'three sacred treasures' (*sanshu no jingi*), Imperial Regalia that are said to have bestowed the virtues of valour, wisdom and benevolence unto Japan, were replaced with the materialistic ideas of 'three treasures' consisting of electric appliances such as washing machines, refrigerators, and black-and-white TV sets.[409] Advocating a new mass culture, MITI's bureaucracy, supported by the media, instilled a desire of possessing electric household appliances amongst Japanese housewives, who were regarded as key figures to increase national consumption and spending, thus triggering higher industrial production. As result, already by 1960, nearly half of Japanese households possessed a washing machine, and in 1965, ninety-five percent of households owned a black-and-white television.[410] The massive speed of dispersion of consumer goods, with the number of households owning a washing machined growing by 900 percent within only five years (1955: 4 percent; 1960: 45 percent of households), and with over ninety-two percent of all households possessing a refrigerator, washing machine, and TV by 1970, is unmatched and can be attributed to a cleverly-designed strategy by MITI and industry to spur household consumption.[411]

For many women, however, fridges and washing machines were more than an 'accessory' of modernity. Rather, these appliances saved women from the highly inefficient, physically-intensive labour of scrubbing clothes in rivers or water basins, and freed up time that would have been spent on frequent shopping and food preservation, to name just a few examples. To a large extent, electric household appliances translated into increasing equality between the sexes, as well as between different classes as they provided the opportunity for all women not to engage in time-consuming household chores. Whilst previously only women of higher socio-economic classes, who could hire maids to do the chores, were able to escape from the tiresome housework, the new electric home appliances such as rice cooker, washing machine and vacuum cleaner provided large parts of the female population with more time for leisure or employment.[412] This meant that women of all social classes had better access to the job market and, at least in theory, could compete on a more equal basis with men in the job sector. Partly due to the new eclectic home appliances, which made household chores less labour-intensive, labour force participation of married women doubled from 20.4 percent in 1955 to 41.4 percent in 1970.[413] In other words, home electronics contributed to the emancipation of the female sex and

[409] C. Gluck, 'The past in the present', in A. Gordon, *Postwar Japan as history* (Berkeley, 1993), pp. 64-98.
[410] Hashino, *Japan's post-second World War environmental problems.*
[411] P. Haghirian, 'The historical development of Japanese household consumerism', in Id. (ed.)*, Japanese Consumer Dynamics* (Basingstoke, 2011), pp. 3-17.
[412] Francks/Hunter (eds.), *The historical consumer.*
[413] D. Robins-Mowry, *The hidden sun: women of modern Japan* (Boulder, 1983), p. 177; see also R. Mouer and A.

helped 'democratise' the home. It furthermore provided women, who had more time for self-realisation, with the chance to engage in community service and social activism such as citizens' movements, and to voice their (often particularly 'female') concerns about the environment, peace and food safety. The 1950s and early 1960s were thus a rare period in Japanese history when women were not required to engage in paid work and when their time was not yet consumed by 'policing' their children's studies as '*kyōiku mama'* (education mother), making the 1960s a time for women to be able to engage in political movements, unmatched by any other decade in the 20th century.

IX.III Consumerism, economic justice, and externalities of growth

Around the early 1970s, before the first oil shock, Japanese society is often described as a 'mature bourgeois society', with a strong preoccupation for consumerism and 'material pursuits'. This is exemplified by the inward-looking mass culture of 'My Home-ism' and 'My Car-ism' (*mai hōmu shugi/mai kaa shugi*).[414] These bourgeois traits, and the desire to copy luxurious Western lifestyle can be inferred from the new 'three holy treasures' of 1973: '*villa*', '*vacansu*' and '*visit*' (a holiday home, holidays overseas, and dinner invitations).[415] With the Japanese economy doubling between 1960s and 1970 (and with GNP growth rates of 9.9 percent per annum between 1955 and 1973), which helped most families equip their home with a washing machine, a vacuum cleaner, and a refrigerator in in the late 1950s and early 1960s, followed by a 'cooler' (AC), car and colour television in the mid-1960s, the new middle class of the early 1970s was increasingly pressured to aspire to a luxury lifestyle. Profit-hungry industries, growth-focused government ministries, and the rising advertising industry spread an 'optimism boom' in the 1960s, proclaiming a universal middle class and celebrating Japan as global economic power whose GNP was only rivalled by the US after it surpassed Germany in the early 1970s. This translated into commercials advertising luxury goods and leisure-time entertainment from the late 1960s, especially in the 1970s and 1980s. The reality, however, is better depicted by a savings and loan association's advertisement from 1972, which suggested that 'overseas travel to Europe' should take place around the 60th birthday. The adjective 'comfortable' (*yutaka*) is used only once, in reference to 'comfortable old age', whilst pointing out the high spending for education and other family-related expenditure. This highlights that although GNP was indeed significantly increasing in the 1960s, rising expenditures that outstripped wage increases translated into less

Kawanishi, *A sociology of work in Japan* (Cambridge 2005).
[414] Dower, *Peace and democracy in two systems*, p. 26f.
[415] Gluck, 'The past in the present', p. 75.

wealth amongst the Japanese population than was often depicted in literature on Japan's mass consumerism in the 1960s.[416]

Whilst the Japan of the 1960s is often synonymous with 'miracle growth' and mass consumerism, there is a strong clash between government propaganda in regard to GNP, and actual wealth and spending amongst Japanese consumers. The 'almost catatonic fixation of the ruling groups on industrial productivity and economic nationalism' contributed to the outstanding economic achievement that Prime Minister Ikeda's income-doubling plan (1960-1970) was not only met, but that the actual target was even out-performed. Japan's 'economism' of the 1960s and 1970s, describing an almost religious adoration of industrial growth and a national doctrine of becoming a global economic power, triggered two decades of 'miracle growth' from 1953 to 1973. Years before Prime Minister Ikeda's income-doubling plan in the 1960s, real GNP (at 1960 prices) had been growing on average by 9.9 percent (1953-1963), and with real GNP in 1963 being 3.2 times of pre-war levels (1934-35), the Ministry of Finance announced in its mid-term plan as early as in 1965 that 'the post-war economic growth of Japan has no parallel in the world'.[417] Whilst it was indeed the first sustained, long-term double-digit real GNP growth globally, Japanese citizens were not always able to benefit from it. With real GNP being nearly two percent higher than the average increase of real per capita consumption, it can be assumed that not all economic wealth accumulated between 1955 and 1973 was spent.

However, GNP is not to be equated with wealth amongst the Japanese population, and similarly, it does not necessarily foster consumption, which would lead to higher living standards, as discussed in the following discussion. Horioka (1993) suggests that 0.81 percentage points of GNP were saved rather than spent in the market. This shows that a considerable part of national wealth was put into corporate and private saving accounts, which increased the liquidity of Japan's banks and companies who could get loans at low interest rates, rather than being spent on increased consumption and personal welfare.[418] What is often overlooked in accounts of personal wealth and well-being of Japanese citizens in the 1960s is that whilst disposable income was high, real consumption amongst Japanese citizens was only around twenty-five percent of their US counterparts in 1955, thirty percent in 1960, and still only about half in 1970. This displays that Japan, despite rapid economic growth, continued to be significantly less consumerist than US citizens, partly because Japan's purchasing power remained about thirty percent below that of

[416] D.D. Plath, *Long Engagement: Maturity in Modern Japan* (Stanford, 1980).
[417] Economic Planning Agency, *Chūki keizai keikaku* (Tōkyō, 1965), p. 5.
[418] C.Y. Horioka, 'Why is Japan's household savings rate so high?', *Journal of the Japanese and International Economies*, 4:1 (1990), pp. 49-62.

their American counterparts.[419] This implies that the available financial means for leisure and luxury were far more restricted in Japan's 1960s than in the United States. Whilst Japan had been hailed as the number two country in terms of GNP, an image MITI increasingly ingrained in the Japanese mind, it is often overlooked that on a per capita basis Japan was lagging far behind most Western countries in the 1960s and 1970s, ranking 22nd amongst democratic nations. Despite Japan Economic Newspaper's (*Nihon Keizai Shimbunsha*) proclamation of Japan as 'Great Economic Power', so the eponymous title of Kanamori Hisao's book of 1965, Japanese people remained only modestly wealthy.[420] In order to continue the government's official meta-narrative of progress and national economic growth, the Cabinet of Ministers of State initially even refused to print the National Life White Paper, which, in 1969, suggested a considerable lag of Japanese living standards compared to other industrialised nations.[421] In spite of hard labour and self-imposed restrictions to demand higher social security and welfare services for the sake of national growth, the Japanese people were only modestly well off in the 1950s and 1960s, in contrast to common assumptions and depictions by the media and MITI. In other words, Japanese citizens made the nation rich, but could not realise redistribution of this new national wealth amongst Japan's citizens, making Japanese society less equal and 'just' than is often implied in socioeconomic studies, partially refuting society's belief of a uniform middle class.

Whilst progress was less teleological than advocated by the Japanese government, citizens still had both a considerably higher salary and disposable household income than compared to the immediate post-war years. However, whilst many women found themselves managing larger household budgets, a considerable part of this newly acquired moderate wealth was spent. Contrary to common assumptions, it was not yet the spiralling land and housing prices that drove expenditures, but medical bills and education. At the time when European nations increasingly raised social welfare expenditures, the largest increase in private household spending in Japan was allocated to medical and health services, which increased from 5.6 percent of private consumption expenditures in 1960 to 7.9 percent (based on current price data), displaying the highest rise amongst all consumption goods.[422] This increase of nearly sixty percent, together with increased consumer spending on education, highlights that whilst the state accumulated wealth, there was little redistribution in form of increased national social welfare spending, and that few

[419] Id., 'Consuming and saving', in A. Gordon, *Postwar Japan as history*, pp. 259-292.
[420] K. Hisao, *Keizai taikoku: Nihon* (Tōkyō, 1965).
[421] K. Taira, 'Dialectics of economic growth, national power, and distributive struggles', in A. Gordon (ed.), *Postwar Japan as history*, p. 167-188.
[422] Consumer goods measured: Food/beverages/tobacco; clothing/footwear; rent/utilities; furniture/household goods/miscellaneous household expenses; medial/health; transportation/communication; recreation/leisure/education/cultural services; miscellaneous). OECD, 'OECD statistics', *National Economic Accounts Quarterly,* 43 (June 1988), accessed 19 July 2016, at https://stats.oecd.org/Index.aspx?DataSetCode=EO43_VINTAGE

citizens, especially not those in the low-income bracket, were able to substantially benefit from GNP growth. In other words, Japan experienced economic growth but limited *economic success*, because economic justice in form of redistribution was negligible. If one takes into account the negative externalities of Japan's two-digit GNP growth, such as pollution and an overcrowding of cities, it can be argued that the real benefits of the Japanese state's rise to a global economic power were minimal for the people. To the contrary, Japanese citizens had to bear the negative effects of pollution and often experienced a decline in quality of life. 'Operating under a high economic growth policy which sought a rapid increase in the wealth of the Japanese nation with almost no regard for the possible adverse effects on the Japanese people', the conservative ruling groups of LDP and MITI engineered and promoted an economic system in which negative externalities had to be borne by the people, not the producers and the government. As Taira argues, 'unjustified costs [were] imposed on the public' rather than internalised, enabling the LDP and its protected industries to invest all possible resources in productive activities, which enabled miracle growth.[423] The clashes between the costs and benefits of GNP growth became increasingly apparent in the 1960s, when pollution levels skyrocketed, prices hiked, and urban housing shortages became evident, whilst care for the least economically-advantaged citizens remained stagnant. Despite the stipulation that the 'state shall use its endeavours for the promotion and extent of social welfare and security, and of public health', guaranteeing all people a 'right to maintain the minimum standards of wholesome and cultured living' in Article 25 of the Constitution, which was confirmed in the Livelihood Protection Law (*Seikatsu Hogohō*), Japanese citizens felt increasingly excluded from national wealth. This even extended to a feeling of betrayal as social welfare and security only marginally increased in the 1950s and 1960s. All in all, this impressively highlights that the common population had to bear the negative externalities of growth whilst only profiting marginally from it in real terms.

To the surprise of foreign economists, 'few countries that have reached the level of wealth that Japan has now reached, spend as small a proportion of their annual income on internalizing externalities', which highlights the low level of economic justice in Japan.[424] Although most of these social costs can neither be clearly established nor economically valued (by putting a price tag on them), rising pollution posed one of the biggest and most visible negative externalities of growth. Whilst Japan had become one of the most, if not *the* most, polluted nation on earth by the 1960s, and despite the availability of environmental technologies, the Japanese government refrained from asking industries to install readily-available, costly

[423] Taira, 'Dialectics of economic growth, national power, and distributive struggles', p. 169.
[424] A. Breton, 'The non-institutionalization of externalities', *ASTE Bulletin*, 13:1 (Spring 1971), p. 31.

technologies to treat effluents, or to filter particles from exhaust gases and smoke. In an effort to jump-start industrial production, the government allowed producers to neglect pollution control, releasing untreated smoke and chemical waste into the biosphere, thereby creating a polluter paradise that infringed on the citizens' right for livelihood and health protection. Not only did this environmental pollution maximise profits for the producers and rising GNP for the state, it also created new demand for services and products to treat pollution victims, which furthermore added to the growing GNP. Pollution victims, suffering from asthma and other respiratory diseases, had to receive repeated medical treatment and continuously purchased medication, thereby (involuntarily) contributing to GNP growth. Parts of the rising health-related consumer expenditure between 1960 and 1970, with citizens allocating on average 60 percent more of their spending share to medical services in 1970 than in 1960, can be partially attributed to pollution-related diseases, which spread amongst the general population in the 1960s.[425] In the most polluted areas of Yokkaichi, such as Isozu City, over seventy percent of men aged seventy and older went to medical consultations regarding asthma every year in the mid-1960s, and in Tobata citizens claimed that 'thirty percent of the population is sick'. Whilst this percentage may be exaggerated, Asahi Newspaper put forward the figure of ten percent of all young children in Sanroku suffering from inflammatory diseases of the lungs in 1966.[426]

Due to pollution, alongside social well-being, disposable income shrank as medical bills piled up. One of the main driving forces behind the women's anti-pollution activism in Tobata was not only the widespread emergence of respiratory diseases amongst children and the elderly, coupled with fears of lung cancer, but also the immediate threat that large parts of household income would be consumed by medical bills and cleaning-related expenditures. As the members of the women's association highlighted, pollution-related expenditure amounted to 2,500 yen per patient (not per household) per month for medical examinations and medication, on top of which each family spent, on average, 373 yen for dry cleaning services and 263 yen on soap and laundry detergent per month in 1966.[427] In the case of a family with two chronic asthma patients, which was not uncommon, pollution-related expenses in the most polluted areas of Tobata amounted to over 6,000 yen (and thus around one third to half a worker's monthly salary) each month. With rising expenditure due to pollution, Tobata's women increasingly asked themselves what growth

[425] OECD, 'OECD statistics', *National Economic Accounts Quarterly, 43* (June 1988), accessed 19 July 2016, at *https://stats.oecd.org/Index.aspx?DataSetCode=EO43_VINTAGE*
[426] K. Yashida, K. Morio, and K. Yokoyama, 'Epidemiology and environmental pollution: a lesson from Yokkaichi asthma Japan', in I.C. Willis (ed.), *Progress in Environmental Research* (New York, 2007), pp. 263-278; Tobata Ward Collaborative Women's Association*, Aozora ga hoshii II;* Asahi Newspaper, 'Aozora ushinawareta machi: Tobataku Sanroku kōgai pato [The city that lost its blue skies: Pollution Patrol in Tobata's Sanroku Ward],' 10 November 1966.
[427] Tobata Ward Collaborative Women's Association, *Aozora ga hoshii II*, 1966, p. 169f.

was for, and why so little of the quickly rising GNP was used to improve the life of the common people. As a result, discussions on the meaning of progress and modernity became increasingly prominent in the women's societies meetings, triggering a consensus that profits should not longer be kept amongst the ruling circles and industries, but that some of the gains from production should be invested in pollution prevention.

IX.IV *Wise mother, rational consumer*: the state's concepts of womanhood and the economy, and Tobata's women's ideological motivation for activism

In the immediate post-war years, the Japanese government, in an effort to modernise and 'catch up' with Western nations, proposed that the Japanese population was lagging behind other democratic countries in terms of education, especially in the sciences. However, being aware that the country not only needed skilled scientists and engineers in order to become a global power with a competitive technological sector, but also educated housewives with advanced skills in budgeting household expenditure for the state to push high saving rates that should fuel investment and industrial production, the government promoted society's general education in their Social Education Law (*shakai kyōiku hō*) of 1947. The law envisaged promoting 'culture' (*bunkateki kyōyō*) and the democratisation of all parts of society, especially of women who had often only received basic education in pre-war years, by constructing civic halls, libraries and museums, as well as by offering classes in social education.

Since the Hatoyama government provided increased advice and financial aid to local organisations such as women's associations or the New Life Movement (which promoted the rationalisation of everyday life amongst Japan's female population) in 1954, women's groups in Tobata started new 'women's study' (*fujin gakyū)* groups from the mid-1950s, in co-operation with the local government. As the topics of the women's studies in Tobata highlight, the Japanese state hoped to promote a rationalisation of lifestyle and household management, coupled with the democratisation of everyday life. According to documents from the women's associations in Tobata, local women met regularly to study, mainly focusing on new lifestyle (*seikatsu*) issues such as 'effective management of free time and lifestyle' (1961), 'housewives' ideal one-day life' (1961) and 'lifestyle in our town (survey)' (1962).[428] In logical extension, the women also received practical instruction on how to use the amenities Japan's modernisation and new electric home appliances had brought about. This included 'how to use an iron correctly' (1961) and 'electricity in our life' (1960), which are only some examples of the yearly study topics of the

[428] Ibid., preface (no pagination).

women's societies. To some extent, modernisation also received critical inquisition from an early stage, such as in 1959 when the influence of modern technology, such as television, on children's life was examined, or when the high cost of energy (1961) and rising traffic accidents were discussed (1962). The studies by Tobata's women, which had been exhibited in yearly 'New Life Exhibitions' (*shinseikatsuten)* since 1955 reveal that the government greatly tried to influence women's lifestyle. Whilst the pre-war and immediate post-war years were dominated by government-led classes on the cultivation of women as 'female flowers' and 'wise mothers' (as exemplified by the numerous classes in flower arrangement, tea ceremony and calligraphy), the 'women's learning' classes of the mid-1950s and 1960s largely reflects the government's agenda of making Japanese women efficient, rational housewives, which studied 'economics' (*keizai kenkyū*, 1961), electricity prices (1960), as well as 'household economics for prosperity' (1964).[429]

Hiroko Takeda proposes that the New Life Movement depicts a 'governmental intervention in household economics management', which is also true for the female learning classes by the women's associations, which were offered as early as from 1954.[430] In other words, the Japanese government tried to promote 'modernisation' (*kindaika*) by educating Japanese women on how to economise and live on a small budget. Whilst the media were introducing new electric appliances from the mid-1950s, the Japanese government pushed its agenda of making Japan a global economic power by promoting thriftiness. The ideal 'good wife, wise mother' had turned into a modern housewife that was able to save substantial parts of the husband's income, thereby promoting economic development (as her stable savings were used by the Japanese government to supply industry with readily-available, cheap loans, guaranteeing constant cash flows). In other words, the government was not predominantly trying to shape women as democratic citizens, but as consumers. With the household budget being largely managed by women, and with nearly all products of 'modernisation' being consumer goods aimed at women (e.g. electric household appliances, cosmetics, Western clothing), the government realised the importance of two economic practices. First, the government needed to create a desire amongst women for mass consumption, thereby spurring domestic demand and economic growth. Second, the government needed to educate women on how to rationalise the household finances, thus increasing saving rates so that the newly rising middle class would be able to buy the new consumer goods. The popularity of housekeeping books, which exploded in the 1950s, also due to

[429] Ibid.
[430] H. Takeda, 'Governance through the family: governing the domestic, in G.D. Hook (ed.), *Contested governance in Japan: sites and issues* (London, 2005), pp. 233-48, quote from p. 239.

the New Life Movement's efforts to promote tight financial budgeting, highlights the success of the government's agenda to create rational female consumers longing for new consumer goods.

Whilst bureaucrats hoped to 'modernise' women in a way that was beneficial for the state, and thus for economic development, thereby increasingly influencing (or even co-opting) women's associations for their own goals, Tobata's women became critical of the interpretation of modernisation the government was promoting. Already by 1960, several women's associations started to discuss health and illness in their yearly exhibition. Whilst the exact content remains elusive, there is a high possibility that health was discussed under the premise of pollution, against the backdrop of increasing cases of asthma and respiratory diseases. The fact that health topics were yearly occurrences amongst Tobata's thirteen women's associations after 1961, culminating in the collaborative research on pollution between 1963 and 1969, as the *Give Us Our Blue Skies Back* movement (1965-1969), highlights the women's critical stance regarding the state's narrative of modernity.

Whilst the end of the war brought democracy, it did not entail immediate wealth and, for a whole decade, Japan's economy was smaller than its pre-war heights.[431] Experiencing this injustice of not benefitting from national growth that inflicted harm on people's heath, Tobata's women decided to petition the government to demand particle filters. Tobata's women were thus amongst the earliest examples of citizens experiencing, and revolting, against a new modernity that did not add to any improvement of common people's lives. The women's activism against the Kyūshū Electric Power Company, which emitted largest amounts of smoke into Tobata's air in order to support production in the city's steel and coal production (rather than private households), was an important step in exercising newly acquired democratic rights, female participation in politics, and grassroots activism. The explosive nature of the women's protest against modernity without benefit for the people, however, becomes most evident when realising that it was directed against the government's *only* strategy for growth in the 1950s (namely the promotion of heavy industries by all means), at a time of extreme national and personal poverty. Whilst often forgotten, Japanese per capita GNP in 1950 was USD 1,873, less than twenty percent of that of US citizens (1950: USD 9,573), and lower than that of Colombia, Peru and South Africa, and another twenty-five states. As the LDP had implement a strategy on concentrating *all* national efforts and hopes for achieving great nation status as an economic power on iron and steel production, especially after the domestic coal industry had started to lose competitiveness, the women's protest directly translated into an opposition to national growth without people's wealth and well-being.

[431] Hein, 'Defining growth: debates on economic strategies', p. 108.

Whilst the government portrayed Japan as the world's biggest economic miracle and aspiring great power, promoting narratives of ever-improving lifestyle (*seikatsu*), the women's societies of Nakabaru and Sanroku revealed that although the nation and industry were prospering, the common population was suffering. Already in the 1950s and early 1960s, Tobata's women became increasingly suspicions of the government's metanarrative of modernisation and mass consumerism. Whilst the ruling elite's interpretation of progress centred on economic growth and mass consumerism, the women soon realised that these two factors infringed upon rather than promoted their lifestyle. Ironically, whilst modernisation brought Tobata's females household appliances such as washing machines and vacuum cleaners, the women predominantly used these newly-acquired symbols of modernity in order to remove the biggest signs of 'progress', soot. Although washing machines and vacuum cleaners helped rationalise household tasks, the time Tobata's housewives could save due to electric home appliances had to be spent on washing laundry several times in order to get them clean, as pollution was magnifying Tobata's women's household chores. As the women lament in the research reports and the *Give Us Our Blue Skies Back* documentary (1965), women 'had to wash their laundry several times in order to get them clean'. In fact, it was very hard to get shirts and bedding white because as soon as the wind dispersed soot and smoke particles, all laundry hung outside had to be washed again. This not only cost a lot of time and effort, making the task of doing laundry even more time-consuming than before the advent of washing machines, but also required considerable expenditure for soap and detergent. Despite the rationalisation of the household, which the government promoted and which is generally believed to have been exemplified by *danchi* housing complexes, where a large number of Tobata's women lived, laundry had become a sign of non-efficient, 'non-rational' housework. Similarly, 'tatamis had to be cleaned several times a week', and 'windows were to be kept closed, even in the hot summer' in order to prevent them from getting completely blackened and damaged.[432] The 'old Japan' in the form of rice straw mats (tatami) was severely damaged by Japanese modernity and the pollution it entailed, and despite the existence of modern goods, citizens' private lifestyle had, in many instances, become more inefficient and burdensome. By 1965, when the *Give Us Our Blue Skies Back* documentary was aired on the national NHK channel, Tobata's population had become disillusioned about 'progress' and bureaucracy-driven modernisation, and as much as ninety-eight percent of the population of Sanroku expressed a desire to move away.[433]

[432] Hayashi, *Kore ga kōgai da.*
[433] Tobata Ward Collaborative Women's Association, *Aozora ga hoshii* documentary.

Nevertheless, Tobata's women were embracing modernity as much as other women around the Japanese archipelago, and the two leaders of the movement, Akiko Mōri and Chiyoko Imamura, might have been amongst the most 'modern' women in different respects. Mōri, a highly-educated primary teacher, embraced ideas of modernity and internationalisation from a very early stage. Being an avid proponent of a united world, Mōri fervently studied English using another device of modern life, the radio, and actively approached the occupying forces during Japan's reconstruction years.[434] Imamura was a socially active lady, always dressed in elegant fashion, according to her daughters.[435] The pictures taken by Hayashi, showing the women in action doing pollution research, reveal a wide acceptance of modern life. This includes perms, Western fashion, and nylon stockings, which were especially common amongst the female citizens of Tobata. Tobata's women's association, if not promoted, at least welcomed modernisation. The local housewives were aware that modernisation could not (and should not) be stopped easily. However, modernisation should be used for everyone's benefits, according to their ideology. Having lost the last piece of untouched coastline of the beautiful shores of Tobata in 1937 due to the construction of an electricity work by Nakabaru Power Station, Tobata's women worked hard to have the Sensui Children's Pool built in Tobata in 1971. Knowing that the pristine condition of nature could not be brought back, and that the beaches had been lost for good, the women used modernity in the form of swimming pools to find a replacement to the destroyed nature. Whilst modernity was an unstoppable process, according to the women's understanding, at least modernity should be used to compensate for the price that had to be paid by citizens in order for Japan to develop economically.

Pollution issues highlight that the government's narrative of a teleological progress of modernity, starting from the Meiji Restoration, has to be reconsidered. The road to economic prosperity was, for many Japanese, more 'bumpy' than commonly assumed, and despite the multitude of *seikatsu* movements and ideas of a rationalisation of modern life, modern lifestyle was not always equivalent with prosperity and improved well-being. The anti-pollution movements by Tobata's women's associations, however, were not directed against modernity per se. Neither did the female activists reject modern lifestyle. Their major disdain was the maximisation of profit by industry and the government, coupled with the absence of an internalisation of the negative effects of modern industrial production. In a twisted move, in order to have a fair, just 'modernity' where wealth was spread equally and where citizens' health and

[434] Interview with Yoshimi Satō, 19 April 2012.
[435] Interview with Michiko Iwai and Yukako Imamura, 31 July 2012.

livelihood were not infringed by economic progress, the women used the very concepts of modernity and technological development for their cause. Modernity is often synonymous with science, as science embodies the rationalisation of the world. Being aware of the high position of science in 'modern' post-war society, Tobata's women used science in order to urge government and industry for an alternative modernity, based on co-operation and redistribution of wealth. Science as embodiment of rationalism and technology, to which the Japanese state aspired (as revealed in Chapter VI), helped the women find supporters and make their demands not only heard, but also fulfilled. For Tobata's women, technology was not a 'demon' that brought suffering when used inappropriately. Rather, when applied correctly, and when scientific knowledge was used to protect the people, such as in form of particle filters or wastewater treatment facilities, it was regarded as a vehicle for a just society and a new modernity. From the beginning of their activism in 1950, over nearly twenty years, Tobata's female activists advocated the use of technology, demanding the internalisation of negative externalities by all polluters, and the use of technological equipment to save the people. Technology, similar to modernity itself, was never condemned, but asked to be used appropriately by Tobata's women's associations.

IX.V Tobata's women's subversive protest

Women in Tobata pursued a different strategy to achieve their aim of influencing politics than, for example, the often militant Mitsui Miike miners' wives during Japan's biggest post-war labour dispute in 1960, or the women of Kazanashi (Oita prefecture), who staged confrontational protests in February 1971 against the planned construction of a cement factory by Ōsaka Cement. Whilst many wives of unionised labour engaged in violent demonstrations, and in contrast to Kazanashi's females, who started a waterborne 'sit-in' on rafts in the area of the planned construction site for seventy-two hours (also jumping in the ice-cold water to escape the police, which was called in by the mayor), Tobata's women pursued a cooperative strategy. However, despite their non-confrontational methods, Tobata's women also employed subversive protest, which will be analysed in the following, starting with the co-operative elements. [436]

Following the post-war trend of devoting an increasing amount of time into rearing and protecting their children whilst simultaneously hoping to achieve a more prosperous and less burdensome lifestyle, Tobata's females first and foremost were motivated by a desire to protect their children's health by being a 'wise mother'. Their strategy was neither to protest using violence, not to be in the passive role of asking for help or for others to solve the pollution issue,

[436] Broadbent, *Environmental politics in Japan: networks of power and protest*.

but to become democratic, rational activists themselves. One reason for the success of the women's approach of collaborating with (and even using) power elites for their high-spirited mission of saving the family and community was that the leaders of the movement, Mōri and Imamura, were, as former teachers, socially respected, and thus credible partners for the government and academia to interact with. Furthermore, with numerous members being married to high executives of local companies, the women were aware that aggressive behaviour would destroy their husband's reputation, and that keeping the aura of pre-war ideas such as 'good wife and wise mother' would be necessary to achieve their goals. In a social climate in which being 'feminine' was more and more advertised in the media, such as in women's magazines, and when middle class women devoted more and more time to fashion, consumption and their children's education, many of Tobata's women felt a socio-cultural restriction to use aggressive behaviour against pollution's culprits.[437] However, the wives of blue-collar workers at Yahata Steel displayed a predominantly non-confrontational nature. According to the newspapers of the Yahata Steel's Labour Union, *Neppu* (Hot Blast), the sporadic participation of women in May Day demonstrations made their aura 'more bright and happy' rather than more convincing, highlighting that Kitakyūshū's women, neither white or blue collar-affiliated, were highly aggressive or confrontational.[438] Very few of the Steelworks' blue-collar workers' wives took part in labour demonstrations for higher wages. Instead, females consulted with the women's department of Yahata Steel to demand higher wages in order to keep up with the spiralling prices in the 1950s and 1960s.[439]

This co-operative, rarely openly confrontational, nature of women is often ascribed to their character. Whilst it is hard to delineate how much of it is nature and what is nurture (following the female ideal of women as calm and submissive that has persisted since the Meiji period), similar behaviour was also displayed amongst unionised women. Whilst female membership in labour unions skyrocketed after the end of World War II, rising from one percent in pre-war Japan to fifty-one percent by early 1949 (when there were 5,130,000 male and 1,520,000 female union members), it swiftly declined after the violent labour protests and increasing communist rhetoric and indoctrination in 1949, being thirty percent lower in 1950 than in 1949.[440] This highlights a female aversion to violence and the (often extremely leftist or

[437] B. Katzoff, 'From feminisms to femininities: fujin kōron and the 1950s', *Social Science Japan*, 14 (March 1998), pp. 10-12.
[438] Labour Union of Yahata Steelworks, *Neppu* [Hot Blast] (1949-1971).
[439] Ibid.
[440] Statistical Survey Section/Ministry of Labour, '*1949nen rokugatsumatsu kihon chōsa rōdō kumiai chōsa hōkoku*' [Basic Survey on Labor Unions Report, June 1949] (Tōkyō, 1950); D. Kucera, *Gender, growth, and trade: the miracle economies of the postwar years* (London, 2001).

communist) propaganda of the labour movement, which was also displayed by Tobata's women's associations.

As highlighted, the female members of Tobata's collaborative women's association regarded themselves as caretakers of the family, or modern 'household managers', as Imamura put it, who tried to influence politics strategically, with wisdom and co-operation rather than through violent acts and confrontational demonstrations. However, they were much less 'harmless' than portrayed by the contemporary media, and often also less harmonious than commonly claimed. Whilst there was no open confrontation with the government or the polluting companies, the women's activism was also met with resistance, both from within the family and from outside. Many husbands could not understand how their own wife could protest against the very company in whose apartment they lived and on whose salary payment their lives depended. Even those understanding the women's motivation were still torn between supporting their wife and the fear of repercussion at work.

Numerous husbands experienced verbal abuse at work, derogatorily being labelled 'communists' or called 'a weak husband who can't control his wife' by co-workers or seniors.[441] Fearing repercussions at work, including being fired (despite lifetime employment being dominant at the Steelworks), husbands were reported to have shouted at their wives, telling them that 'if you continue your activism, I will not have a job anymore'.[442] That this was an actual threat is highlighted by Hayashi, who reveals that some of the activists' husbands were 'suddenly transferred' to the Steelworks' new, less prestigious, faraway site in Chiba.[443] Also, the women themselves experienced behaviour full of contempt. Anonymous phone calls ordered several female anti-pollution activists to stop their movement.[444] As a result of the women's increasing influence and broader support basis, which also included the media from which they received a wide degree of publicity, the local government changed its attitude towards the female movement to more restrictive actions. To name just one example, in 1969, the city administration cancelled the scheduled 'New Life Exhibition', which had basically turned into an anti-pollution research symposium with little prior notice.[445] This shows that whilst both the polluting industries and the local administration pretended to appreciate the women's activism, displaying understanding and harmony on the outside, the women's movement contained more explosive power than commonly assumed. This was increasingly met with resistance amongst the local administration in the late 1960s, which tried to control and contain it.

[441] Hayashi, *Yahata no Kōgai*.
[442] Imamura, 'Aozora ga hoshii'.
[443] Ibid., and interview with Eidai Hayashi, 12 May 2012.
[444] Ibid.
[445] Interview with Eidai Hayashi, 12 May 2012

Being aware of their social and political limitations as both women and as wives, or mothers of employees of the city's major industries, especially the Steelworks, members of Tobata's Collaborative Women's Associations realised that violent activism or direct confrontation promised little success, and potentially could do more harm than good to their families and the local community. In order to overcome their limitations, they opted for collaboration, but also for subversive activism, a trait that is overlooked in all accounts on Tobata's women's movement. In subtle acts, the women used the city administration for their own goals. Whilst both the local and national government funded the women's study courses, with the aim of promoting the government's interpretation of modernity and rationalisation, Tobata's females used this space and financial support to study the negative effects of development, namely pollution and environmental destruction. Instead of giving in to the government's narrative of lifestyle improvements, spurred by rapid consumerism and technological advancement, the women critically analysed the impact of 'modernisation' on people in their immediate community, highlighting that in Kitakyūshū's ideology of modernity, the common population receives little from the proclaimed lifestyle improvements. In the New Life Exhibitions, organised and funded by the city government, the women presented their disagreement with current forms of modernity in front of the local audience. In other words, instead of complying with the government's idea behind the New Life Exhibition, which was considered a showcase for women to display their cultural 'cultivation' through handicraft whilst simultaneously glorifying progress by demonstrating how women had successfully incorporated modern lifestyle, Tobata's women 'hijacked' the New Life Exhibition to accuse pollution. Using the local town hall, the women not only had access to a central, well-known exhibition space in the city, which guaranteed a considerable audience, but could also project an official character, with many visitors assuming the local government's backing of the women's anti-pollution activism. Keeping part of the New Life Exhibition for the display of handicraft, the women's association managed to cover some of their 'explosive' content in regard to pollution from the local administration, superficially complying with the city administration's ideas. This strategy was successful for four years (1965-1968) until the local government became aware of the high degree of subversion amongst the women's associations' exhibition in 1969, and stopped allocating a budget for it. This, however, did not stop the women who continued their subversive acts paying out of their own pockets.

In similar fashion, Tobata's Collaborative Women's Association used the funds allocated by the local and national government for their female study course for their anti-pollution research. To cover the printing costs for the *Give Us Our Blue Skies Back* reports, the women

applied for extra funds from the local government's Environmental Bureau. For the printing and distribution of their *Give Us Our Blue Skies Back II* report alone, Tobata's activists received the substantial sum of 130,000 yen in 1965, on top of the 36,000 yen for general printing costs that had already been allocated by the city's social welfare division.[446] Arguing that their reports contributed to increase environmental awareness, the local governments paid the bill of the women's subversive act of distributing thousands of copies of their criticism of unequal economic progress amongst Tobata's citizens.[447]

This list of superficial co-operation with the government, which, however, displays major acts of subversion and the use of administration for the women's goal of fostering a 'just society', is long. It also entails the use of the government's networks and connections to find patrons of the women's cause, as well as to gain access to the laboratories of national universities for the women's research. When the local government, under the aegis of the Board of Education's representative for women and youth invited different speakers teaching general knowledge, the women quickly realised that these networks were highly valuable for their anti-pollution movement. Instead of passive learning in the form of receiving lectures by academics, some members approached the most renowned speakers, asking them for permission to use their laboratories so that Tobata's collaborative women's association could analyse the results of their anti-pollution research. With the support of the most established scientists on pollution and health, such as Professor Yoshikatsu Nose from Yamaguchi Medical University and Professor Sadao Iki from Kyūshū Institute of Technology, the women not only gained the practical possibilities of engaging in high-level scientific research (using national laboratories and asking professors at public universities, and thus in many cases public servants for support), but could also increase the quality, credibility and impact of their research. They furthermore used city employees like Eidai Hayashi to access official channels such as universities for their research, arguing their studies were under the aegis of the local government, as part of the city's official effort to increase female learning.

Ironically, even the video camera, which enabled the women to record the outstandingly high pollution levels in Tobata in their documentary, thereby gaining a national audience in 1965 and wide-ranging recognition as a civil movement in and outside Kitakyūshū, was paid for by NHK and the national government. In 1963, when Sanroku's women's associations won a prize for successful participation in the 'Making our cities green' contest that Asahi Newspaper had launched in order to increase female contributions to civic participation in *'machi-zukuri'* (town-

[446] Kitakyūshū City Tobata Ward Collaborative Women's Association, *Aozora ga hoshii IV* (Kitakyūshū, 1968), p. 135.
[447] Hayashi, *Kore ga kōgai da.*

making), they were presented with a video camera, which later proved key for the women's success as a subversive anti-pollution movement (Fig. 46). In other words, by engaging in 'female' activism of planting flowers in Tobata in the 1950s, as well as for their research on pollution in the early 1960s, the women created the gateway to spread their subversive anti-pollution criticism amongst the nation. However, instead of continuing the 'female activity' of planting more flowers and cleaning the city, Tobata's women overcame traditional gender boundaries and used the camera they had won to impeach pollution, becoming pro-active members of society and campaigners against industrial pollution.

Fig. 46: Members of the Sanroku Ward Women's Association receiving the Asahi Newspaper prize in 1963 for their *'machi-zukuri'* (town-making) efforts, which also included their anti-pollution research, 1962-1965.

All these are examples of how, whilst seemingly cooperating with state institutions, Tobata's women silently subverted them and increasingly used their semi-official status of being affiliated with the government to gain more credibility, to access networks, as well as to increase their resources. Despite never openly criticising the government, they were far from being co-opted by state institutions, as was the case with numerous other women's associations at that time, and neither were they clubs for mere cultural refinement.

Whilst the women's activism displayed an increasing degree of subversion over time, Tobata's females had used similar ideas of utilising the government since the beginning of their activism in 1950. Realising that their social position as women would not suffice to bring about major changes in pollution control amongst Tobata's industries, they mobilised the local government, asking the mayor to forward their demands to local industries. Tobata's women thereby used the major tools 'modernity' had provided them with, democracy and technology, in order to fight for their cause of limiting pollution, thus protecting the community from the ills of

unrestricted economic modernisation. Whilst the exact degrees of the 'use' of and collaboration with the local government is hard to establish, it is proposed that the members of Tobata's women's associations posed as subversive revolutionaries who made use of all available means to advance their cause of protecting citizens from pollution and creating a just society. Despite not openly criticising the local government and industries, on which the local community depended to sustain their livelihood, Tobata's women still greatly shaped local politics. Due to the non-confrontational manner of their activism and their co-operation with those power elites the women needed to succeed, local government, university professors, and media representatives, the anti-pollution movement by Tobata's women's associations can be described as 'co-operativist subversion'. As women still had limited power to influence local politics in official, state-centred committees such as parliaments and political support circles *(kōenkai*) or other male-dominated unions and associations, they influenced politics from the fringes. Rather than hoping to become *official* democratic representatives acknowledged by the state, such as members of parliament, Tobata's females developed into unofficial representatives of the local community, using state institutions they had little access to. Akiko Mōri failed to be elected as local representative twice, as the city council was practically the domain of men.

IX.VI Summary

Growth, but for what, and for whom? These were questions Tobata's women directly or implicitly asked themselves and their community members in the 1950s and 1960s. Whilst the government was propagating consumerism and the new amenities of life, Tobata's women's association soon highlighted that the government's meta-narrative of progress and continuous lifestyle improvements needed revision in light of spiralling pollution, congested cities, lack of housing, environmental destruction and the deteriorating human health. Whilst the year 1955 marked the beginning of Japan's miraculous rise to a global economic powerhouse, it also marked the advent of the age of 'neurosis', or rising mental health issues. This reveals that progress and modernity was by far not as teleological as proposed by the government, and that national economic success came at a price for Japanese citizens.

Tobata's women exemplified ideas of modernisation and concepts associated with it, such as democracy, egalitarianism, and internationalisation. They practiced direct democracy by presenting the voice of the local population to the government in their questionnaire surveys. They asked for equal contribution amongst business, administration and residents to curb pollution, and they engaged in international cultural diplomacy. For the women, democracy was

not the mere act of passive voting and electing representatives, but grassroots activism to protect the community. For Tobata's females, egalitarianism did not mean equal rights before the law (which, as in the case of gender equality and the Equal Payment Law of 1947 was neither practiced, nor practically enforceable), but a de-hierarchisation of state institutions such as government, parliaments and universities by creating vertical bonds in their anti-pollution activism.

The discourse on 'democracy' deserves further investigation, as the differences between the government's interpretation of it, and the women's actions, are stark. This dissertation proposes that 'democracy' as a term was increasingly 'hijacked' by bureaucrats, in whose narrative it was synonymous with 'flourishing private livelihood'. The government's increasing interpretation of 'democracy' as growth motor and a means to achieve wealth contrasts with the women's practices of democracy, as exemplified by their practice of mutual aid for the community, deliberation, and direct political participation. For Tobata's women, 'democracy' and 'citizens' were unrelated to the US occupation and institutionalised systems, but an indigenous movement based on ideas of social justice and a general improvement of people's social environment. Whilst government elites aimed at a 'technological fix for social problems', taking 'comfort from the widespread assumption that technology would enhance economic justice whilst avoiding redistribution of wealth', Tobata's women realised that modernity and technological development would not automatically guarantee an equal spread of wealth, but that it was up to citizens' movements to demand social justice.[448] Without rejecting ideas of 'modernisation', Tobata's women proposed that modernity had to be regulated in order for all citizens to benefit from it. They rejected the notion that only big industries should reap the benefits of technological advancement. Being aware of both their rights in a democratic society and their subordinate public role as women, they petitioned local politicians and bureaus to achieve their goals of protecting human health and the environment. However, whilst co-operating with power elites, the female activists, at the same time, were highly subversive, using local bureaucrats, scientists and journalists to achieve their mission.

[448] Hein, 'Defining growth: debates on economic strategies', p. 109.

CHAPTER X: CONCLUSION

Over the nineteen years, between 1950 and 1969, a core group of several dozen fearless women, and another 6,000 in the periphery, followed their strong desire to regain blue skies in Kitakyūshū. Exactly nineteen years later, in 1988, Kitakyūshū received national fame as 'City of Starlit Skies', a title awarded by the National Environment Agency.[449] Whilst it may have been Japan's most polluted city in the 1960s, with thousands of citizens suffering from industrial pollution, it was selected by the central government as first recipient of the aforementioned national prize, honouring the city's efforts to develop into an environmental pioneer.[450] Through the 1970s, at a rapid pace, Kitakyūshū developed from a 'grey city' to a 'green city' with blue skies and starlit nights. Dōkai Bay, once referred to as the 'Sea of Death', where not even *e.coli* bacteria or algae could survive, once again became a habitat for over 115 fish species, highlighting that not only air pollution levels, but also aquatic destruction had rapidly declined by the early 1980s.[451]

How much of this dramatic change can be attributed to the *Give Us Our Blue Skies Back* movement by Tobata's collaborative women's association is hard to judge. On a superficial level, the sharp decline in atmospheric sulphur levels from over twenty-two tons per month per square kilometre in the late 1960s to less than five tons a decade later could easily be attributed to the decline of the Kitakyūshū's heavy industries, especially iron and steel-making, after the oil shocks of 1973 and 1979.[452] Kitakyūshū, once Japan's powerhouse of crude steel production with Yahata Steelworks at the core, experienced economic decline due to the 'steel chill' in the late 1970s and 1980s, losing to foreign competition due to spiralling energy prices, evolving technology and material costs. This, in addition to the Steelwork's internal restructuring and the relocation of the majority of production to the new Kimitsu plants in Chiba, led to a large downsizing of the facilities in Yahata and Tobata in the 1980s.[453] With the majority of the Steelworks' production facilities in Yahata, and some in Tobata, being decommissioned, vast areas were freed up, finding new use in the 1990s. At the site where, in the early twentieth century, Yahata's first iron mill once led Japan into what was considered a brighter future, a new amusement park, *Space World*, was opened in 1990, in the hope to transform Kitakyūshū into a

[449] Metropolitan Environmental Improvement Program, 'Japan's experience in urban environmental management: Kitakyūshū' (1996), http://documents.worldbank.org/curated/en/119421468752108680/pdf/multi0page.pdf
[450] Ibid.
[451] Ibid.
[452] Ibid.
[453] New Japan Steel Yahata Steelworks, *Seiki wo koete.*

modern city, ready for the twenty-first century. In immediate proximity, the Kitakyūshū Environment Museum, the Kitakyūshū Museum of Natural History and Human History, and the Kitakyūshū Innovation Gallery opened, underlining Kitakyūshū's efforts to change from a city of smoke to a city focused protecting the environment

With both local industries and the city government investing over 8,000 billion yen (equalling around USD 80 billion) in measures to prevent and abate pollution between the mid-1960s and the late 1980s, blue skies returned to Kitakyūshū.[454] Exhaust fumes carrying over 27,000 tons of sulphur oxide from steelmaking facilities alone per year, as was the case in 1970, had become unthinkable, and memories of Kitakyūshū as a city of smoke started to fade.[455] Yahata and Tobata are no longer 'industry castle towns', the spatial and emotional dominance of the cities by the Yahata Steelworks has ended, and the physical and emotional toll pollution took in the Sanroku and Nakabaru wards in the 1960s has become increasingly hard to grasp.

Kitakyūshū's development from polluter's heaven, where hundreds of companies could release untreated wastewaters and toxic gases, to an Eco-Model City (*kankyō moderu toshi,* approved in 1997) in less than three decades, was no doubt impacted by external pressures, such as new national environmental legislation from 1970 that demanded strict adherence to high environmental standards. However, it was more than pressure from the central government and legal requirements that motivated the drastic changes in production, from unrestricted pollution to cleaner technologies. As this thesis highlighted, credit also goes to bottom-up grassroots activism and local initiatives, and above all the *Give Us Our Blue Skies Back* movement, as well as to rising environmental consciousness shaped by the media in the late 1960s.

Tobata's *Give Us Our Blue Skies Back* movement, based on pollution research and the dissemination of scientific results regarding pollution's negative consequences amongst the local population ('agenda-setting'), helped create 'receptive audiences', triggering a new discourse on the desirability of unrestricted industrial growth and emissions amongst the local population, politicians, and the city's industries. Being confronted with the results of the women's studies on the adverse health implications from the exhausts gases Kitakyūshū's industries were emitting, and listening to the stories of the local women, who were deprived of many of the simple pleasures of life, such as looking at blues skies, breathing fresh, clean air, having time to relax, and enjoying cultural and aesthetic highlights such as cherry blossom viewings as most trees had stopped blossoming due to Tobata's high pollution levels, many local industries perceived an obligation to act.

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[454] Metropolitan Environmental Improvement Program, 'Japan's experience in urban environmental management: Kitakyūshū'.
[455] Ibid.

Since 1950, but especially after 1960, members of the Nakabaru and Sanroku women's associations, and later all of Tobata's women's groups, contributed in a significant way to a change in the perception of pollution, not only amongst the common population, but also amongst local industries. At least since 1960, housewives of the Sanroku Women's Association had discussed proposals on cleaner production methods with some of the city's major companies, asking for corporate commitment to reduce emissions. After over two years of deliberation and debate with one of the biggest emitters of soot, smoke and sulphurous gases, Nittetsu Chemical (a subsidiary of Yahata Steelworks, now Nippon Steel and Sumikin Chemical), the women had convinced the company management of their obligation to protect the local community from the detrimental effects of their emissions, and an amicable settlement was agreed to in 1963.[456] Signed directly between civic representatives and company executives, it is a showcase of the women's influence on the contemporary discourse of pollution in Kitakyūshū, and reveals the activists' normative power.

The increasing publicity the *Give Us Our Blue Skies Back* movement had received after the yearly exhibitions of their pollution research in Tobata's city hall since 1963 from local and national media, especially from television and radio programmes, furthermore helped increase the female activists' impact, as Chapter VIII revealed. The substantial support from the new media, but also increasingly from the local population (especially after 1966, when the women's association's gave all residents of Tobata the chance to communicate their pollution-related suffering in the opinion surveys distributed to all households in Tobata), provided the women not only with credibility, but also made their demands heard in and outside of Kitakyūshū. Through the women's continuous checking of the emission levels from local companies, but also through direct multi-stakeholder dialogue with the polluters, the *Give Us Our Blue Skies Back* movement had a positive impact on local companies' disposition to act since the 1950s, which increased their willingness to implement cleaner production in the early 1970s.

Through the women's campaigns, which was later spurred on by the outstanding media attention pollution-prevention received in 1970s and when the 'Pollution Diet' passed some of the world's most stringent environmental laws, Kitakyūshū's industries developed a heightened sense of responsibility for both the local community and the environment. In 1972, in an act of corporate social responsibility, the Steelworks convinced Kitakyūshū's major fifty-three companies to follow their lead by signing a concerted voluntary pollution control agreement with the local government, surpassing any legal requirement for pollution control.[457] As a result, much

[456] Kitakyūshū City, *Kitakyūshūshi no kōgai taisakushi: bunsekihen.*
[457] Ibid.

credit for Kitakyūshū's blue skies was given to local industries such as Yahata Steelworks for their decision to implement and follow some of Japan's most progressive environmental regulations in 1972. However, the impact of Tobata's housewives on initiating a discourse regarding pollution as social ill causing environmental destruction and creating a climate where pollution-control would soon become the norm, has also not been overlooked.

X.I National and international recognition of the *Give Us Our Blue Skies Back* movement

The outstanding efforts by Tobata's women's associations to make their home a place where citizens could lead a healthy, enjoyable life did not go unnoticed. Praising the return of blue skies in Kitakyūshū, the Organisation for Economic Co-operation and Development (OECD) introduced Kitakyūshū as an outstanding example for ecological revival in their White Paper in 1985, referring to Tobata's civil society as driving factor. Also in 1990, when Kitakyūshū City received the Global 500 Award by the UN Environment Program (UNEP), and in 1992, when the Local Government Honors Award was bestowed unto the city administration at the United Nation's Conference on Environment and Development' ('Earth Summit') in Rio de Janeiro, the anti-pollution activities by Tobata's women's associations received special mention.[458] On both occasions, representatives from the women's associations were present to receive these international honours for their activism that had helped improve people's health, dignity and lifestyle choices, alongside contributing to a revitalised environment, and resurgent flora and fauna.[459] The judges' decision to select Kitakyūshū as the (as of 2016) only government in Japan to receive the prestigious Local Government Honors Award was highly influenced by what was referred to as Kitakyūshū Method: a collaborative approach by civil society, academia, government and industry to combat industrial pollution in a concerted effort.[460] That a considerable extent of this wide-ranging collaboration was based on Tobata's women's ideas of mutual aid and their approach to collaborate with the local government, academia, and industry rather than to protest against state institutions, remains only partially acknowledged.

X.II Activists' strategies and reasons for the movement's success

[458] Metropolitan Environmental Improvement Program, 'Japan's experience in urban environmental management: Kitakyūshū'.
[459] Interview with Eidai Hayashi, 12 May 2012.
[460] Interview with Reiji Hitsumoto, 17 May 2012.

However, as this dissertation revealed, Tobata's women activists were, for nearly two decades, the main driving force behind Kitakyūshū's non-confrontational approach to clean up their city. Independently researching pollution, and providing accurate data that showedTobata's industrial fumes, soot, and smoke greatly harmed human health, animal life, and the ecosystem at large, the women created a strong base for their anti-pollution platform. The key for the movement's success thereby lay in the women's effective use of science. Since the absence of violence and conflict in social movements largely translates into less attention from the media and politicians, Tobata's women realised that they needed something to compensate for the movements non-confrontational character. After deliberation, the female activists concluded that in the contemporary political climate, where science and technology was often hailed as infallible truth and an all-encompassing solution, scientific investigation and solid evidence for the negative repercussions of pollution would give them both attention and credibility.

Initially, the major aim behind the women's scientific studies, which started with simple measurements of the quantitative degree of pollution, was to establish a correlation between the vicinity to the Nakabaru Electric Power Station and the intensity of soot emissions. However, being able to gain support and guidance from established academics, who provided access to technical equipment, the women's scientific studies reached a high degree of sophistication, and the *Give Us Our Blue Skies Back* movement contributed to better scientific understanding of pollution amongst the population. Ironically, whilst science in post-war Japan was promoted to stimulate industrialisation and enable economic growth, Tobata's females used scientific investigations to protect society from the side effects of this very industrialisation, highlighting that science should be used for the improvement of people's life instead of purely for a better economic performance of Japan's industry. Using 'democratic' science, which ceased to be the prerogative of elites in post-war Japan and allowed people of all social backgrounds to gain credibility, the women overturned age old hierarchies highlighting their internalisation of democratic ideals. By invading the 'male' domain of science, and producing scientific evidence, Tobata's women not only proved that new knowledge was not only created at universites and in public laboratories, but that in the new democratic system, all citizens had the means to study and discover with an objective to positively influence society at large.

Being able to convince with scientific data, Tobata's women managed to influence politics and industries without disruptive action. However, simultaneously, they abided by social norms and their role as women and mothers, trying to protect their families and the local community. This compliance with (outspoken and implied) contemporary social norms regarding women's 'caring' and 'nurturing' nature, due to which women were assumed to be the protectors

of the family (and later also of the environment), and the adherence of an assumed female aversion to violence, coupled with respect for social elites such as academics and politicians, was the second main reason for the success of the *Give Us Our Blue Skies Back* movement. Had the women been militant, or had they demanded high financial compensation for their suffering, the women's movement would have most likely encountered resistance from the city government and industry. However, as the women acted as seemingly simple housewives and concerned mothers, whose demands for blue skies were considered reasonable and justified, Tobata's movement managed to receive high levels of support not only from political and social elites, but also from amongst the general local population. However, as this thesis revealed, Tobata's females were not as simple-minded and tame as sometimes assumed by the local government, but engaged in certain subversive acts. To fund the printing of their pollution research reports, in which the women revealed the correlation between local morbidity/mortality rates and air pollution and accused the government and local industries of inertia, the women cleverly used financial resources the local government had originally provided for women's studies sessions (*fujin gakkyū*) that were largely intended to increase female 'cultural refinement'.[461] Using their connections to established academics, who had been invited by the local bureaucracy to increase the women's basic educational level (but not predominantly to foster women's critical, independent reasoning), Tobata's women's associations managed to acquire human resources, who helped their movement to become influential. In addition, Tobata's women's association used the exhibition space in the city hall to present their findings on the medical implications of industrial pollution, informing the local population about the skyrocketing absence rates at local elementary schools due to pollution-induced sicknesses, as well as the high occurrence of cancer amongst Tobata's females, between 1963 and 1969.[462] Whilst originally, the government introduced these yearly New Life Exhibitions for Tobata's women's associations to display their handmade goods and to praise modernity and their new lifestyle, the women 'hijacked' the stage the city provided to disseminate information about pollution's fatal consequences for humans and the environment, and to reveal the absence of effective policies amongst all political parties. These are only a few examples of how Tobata's women employed subversive acts to achieve their goal of making their city a clean, liveable community that adhered to the principles of social justice and equality.

A third major factor behind the women's considerable achievements was their determination, their creativity, and their focus on the 'everydayness' of pollution. Being aware

[461] Hayahsi,*Yahata no kōgai.*
[462] Ibid.

that as largely uneducated women, without major resources such as established networks and financial resources, there was no simple path to success, the women used every mean readily available to them. Whilst at first sight, simple kitchen equipment and garbage that had accumulated in the household do not provide the best tools to assess pollution, the clever use of old milk cartons, candy boxes, old futons and white shirts helped the women establish a correlation between the distance to one of Tobata's major polluters and the amount of atmospheric soot particles. Despite the rather crude setting of their experiment in 1950, the women did not refrain from approaching the local government, successfully petitioning politicians to demand the installation of particulate matter filters from the Nakabaru Power Station.

This focus on the 'everydayness' of poll-ution, and the use of readily-available materials from the women's daily life as housewives is highly remarkable as it shows that social movements do not have to be planned and managed from above, but that devotion to the cause and stamina often pay off.

X.III Major differences to other anti-pollution movements

The activism by Tobata's women's collaborative associations deserves special attention for several reasons. First and foremost for its ideological motivation and its co-operative character. As highlighted, the *Give Us Our Blues Skies Back* movement was predominantly motivated by a desire for a just society based on equality, hoping to remove new 'social ills' (*shakai aku*), that unencumbered economic growth entailed.[463] In order to reach their goal of social justice, the women displayed extensive willingness to co-operate and a shared spirit of mutual help. They not only cooperated amongst the women's societies, but, searching for support in their endeavours for blue skies, also collaborated with academics and the media to increase the viability and visibility of their scientific research, thereby gaining increased levels of recognition and influence. Tobata's housewives refrained from open confrontation and power struggles, but instead appealed to local companies using scientific evidence and logical reasoning, thereby appealing to industry's corporate social responsibility. At the same time, Tobata's housewives refrained from claims for financial compensation; firstly, because their main aim was social justice and the improvement of the air quality, and not personal gains, and secondly, because they

[463] Imamura, 'Aozora ga hoshii'.

regarded monetary 'gifts' as a way to silence social movements instead of actually responding to the issues at stake.[464]

Second, the *Give Us Our Blues Skies Back* is a case of great courage amongst the activists, who to a large extent protested against the very companies upon which the economic wellbeing of the community depended. With most of the activists' husbands or sons working for Tobata's main polluters, the women were directly dependent on income from these polluting companies. Yet, despite bullying and threat of repercussions for both the women and their husbands at work, Tobata's housewives continued their activism for many years, arguing that human health, a clean environment, and social stability cannot be bought by money, and thus should be defended at all costs. Being aware that because large parts of Tobata directly benefitted from, or depended on, the local heavy industries, they were one of the few social groups who were in a position to act. These fearless housewives regarded their anti-pollution campaign as their social obligation.

The third outstanding feature of the *Give Us Our Blue Skies Back* activism was the women's focus on issues of social justice and human rights. Several years before the UN Conference on the Human Environment in Stockholm in 1972 proposed mankind's 'fundamental right to […] adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being',[465] Tobata's women had argued that Japanese citizens possessed a 'right to breathe fresh air' in their *Give Us Our Blue Skies Back* research report II. Arguing that industrial pollution destroyed not only the dignity and health of individuals, but also the wellbeing of society at large, they demanded companies follow the polluter-pays principle, and not to impose the negative externalities of their (highly profitable) production on the general population. The women displayed a high degree of social awareness, exhibited by their highly innovative and progressive arguementation with no apparent and tangible personal gain. Their ask was simple: they wanted liveable conditions, such as fresh air and sunshine, for all.

Fourth, instead of appealing to the benevolence of local industries, as many other movements did, Tobata's housewives took a pro-active stance, trying to convince the corporate world about their responsibility to act by providing scientific evidence for the adverse effects of pollution. Conducting research in university laboratories, such as at Yamaguchi Medical University under Yoshikatsu Nose, publishing two reports in academic journals on their pollution movement, and disseminating their scientific results amongst the local population and on national TV, sometimes barely educated homemakers invaded the 'male bastion' of science, thereby

[464] Ibid.
[465] United Nations, 'Declaration of the United Nations Conference on Human Environment' (1972), http://www.unep.org/Documents.Multilingual/Default.Print.asp?documentid=97&articleid=1503

overturning age old hierarchies, and contributing to not only a cleaner environment, but also a more democratic society. The women's five research reports impressively highlight that new knowledge regarding pollution was not only generated by established academics or male-dominated mainstream scientific institutions, but that scientific research conducted in Japan's periphery by ordinary housewives contributed to a better understanding of pollution's medial and ecological repercussions.

X.IV the activists' frame of reference

The women's activism was grounded on the ideological disposition that local civic efforts and collaboration provided for an ideal type of society. Through their actions, they highlighted that the community is a unit best governed by the people especially in times of a failure in governance by state institutions, and assumed functions as legislators, administrators and educators. As the local community was the major frame of reference of the *Give Us Our Blue Skies Back* movement, Tobata's women refrained from expanding their focus of action, and did not try to start a supra-regional or even a national movement. Despite their national influence, for example through recognition for their town-making efforts in 1963 through their *Give Us Our Blue Skies Back* documentary that was aired on national NHK TV in 1965, and through interviews the activists gave on national TV and radio networks, the main focus of the women's activism remained on the local community.

Whilst from a western perspective their confinement to the immediate locality has connotations of incompleteness and limited impact, Tobata's women deliberately acted in an area where they could have the biggest and most positive impact, namely the community they knew and belonged too. In their understanding, social activism was not about prestige, recognition and a nationwide scale, but about saving the people and improving the quality of life for their immediate community, which was the unit most threatened by industrial pollution. Rather than expanding their scope and interfering in the politics and social network of other communities, Tobata's women hoped to set an example for other civic groups to start their own anti-pollution activism.

X. V The movement's inspiration for further civic activism

By the time the women's associations discontinued their anti-pollution movement in 1969, after having spent five (in the case of the Sanorku ward, even seven) entire years on

research and anti-pollution PR, Tobata's females had managed to initiate similar activism amongst other civic groups. The adherence to principles of mutual aid found amongst civic groups in the late 1960s and 1970s give rise to the assumption that some other activists in Kitakyūshū were inspired by the *Give Us Our Blue Skies Back* movement. Whilst until 1969, the Give Us Our Blue Skies Back movement had been the only significant anti-pollution activism in Kitakyūshū, civil movements concerned with environmental protection, pollution control and occupational health started to develop around 1970. Established local organisations such as the Rotary Club and the Junior Chamber (JC) started to promote environmental awareness and the cleaning of rivers, and condemned water pollution. The newly founded Kitakyūshū Citizens' Pollution Research Institute (*Kenwakai*), which was set up in Tobata by young medical doctors, pharmacists and engineers in 1969 with the aim of providing unbiased scientific results regarding pollution, opened their independent laboratory.[466] Providing free support and scientific analysis of pollution to local residents and civic groups, and promoting more stringent regulations to prevent occupational health, they displayed a high propensity to the concepts of mutual aid and 'just society'.

Whilst none of these movements openly referred to the women's *Give Us Our Blue Skies Back* activism as inspiration, the women's success, coupled with their role in sensitising the local population for the dangers of pollution, greatly impacted the local community. They thus paved the way for many new local environmental movements in the 1970s, 1980s, 1990s and the twenty-first century, and contributed to Kitakyūshū's development into a national Eco-Model City. Having overcome the 'pollution nightmare' of the 1960s and early 1970s through a collaboration amongst civil society, academia, industry and the city administration, which Tobata's *Give Us Our Blue Skies Back* movement had initiated in 1950 and intensively promoted in the 1960s, Kitakyūshū nowadays focuses on helping others curb pollution, and has trained well over 5,000 foreign representatives on how to prevent and abate industrial pollution.[467]

X.VI The *Give Us Our Blue Skies Back* movement – a unique, isolated case?

Whilst this dissertation focused solely on the developments in Tobata/Kitakyūshū, it is likely that the *Give Us Our Blue Skies Back* movement is not an isolated case, but one amongst numerous examples of civic anti-pollution movements based on non-confrontation in Japan's 1960s. Further research into the topic is likely to reveal similar trends amongst other Japanese

[466] Kenwakai, *Kōgaiken jūnen no ayumi.*
[467] Interview with Reiji Histumoto, 17 May 2012. Data as of May 2012.

communities in the intermediate post-war years and the 1960s, with citizens promoting a Japanese form of democracy based on collaboration and direct involvement in local politics through civic activism. Whilst Japan's civil society is often considered 'weak' and underdeveloped, the stringent, innovative fourteen anti-pollution laws passed in January 1970 did not develop in a vacuum, but were the result of pressure from an ecologically sensitised populace. Similarly, the rise of liberal and socialist, often anti-establishment, mayors and governors in the majority of Japan's designated cities covering more than a third of Japan's population by the early 1970s, did not happen overnight, nor were they unrelated to civic anti-pollution activism.[468] To the contrary, the U-turn by the ruling Liberal Democratic Party vis-à-vis strict restrictions on pollution, the introduction of the polluter-pays-principle, and the new environmental protection mechanisms from 1970 were the result of immense pressure from Japanese citizens around the whole archipelago. Expressing dissatisfaction with the establishment, which failed to introduce far-reaching environmental measures in the lukewarm pollution prevention ordinance from 1967, and which had showed little initiative to protect citizens' health and livelihood, but also the environment, Japanese citizens voted numerous conservative mayors in large metropolises out of office.[469]

The change in the general population's view on the desirability of industrial pollution was not only expressed in election results, but, more importantly, also in the rise of hundreds (or even thousands) of local anti-pollution movements, many of which have been hidden from the gaze of historians. Further research into the topic is likely to show that the *Give Us Our Blue Skies* movement in Tobata was only one of the many endeavours by Japanese civil society to promote a general consensus that modernisation and economic progress would need to have a peaceful co-existence with nature. Similar to the development in Tobata, it is expected that new research will bring to light diverse citizens' groups who, around the Japanese archipelago, had promoted a different interpretation of democracy with a more local, mutual-aid based character whilst simultaneously advocating respect for human rights and the environment in the 1960s.

X.VII Relevance of this thesis

This dissertation revealed an outstanding case of civic activism in the 1950s and 1960s that has been largely neglected in scholarship, mainly due to the 'indivisibility' of the *Give Us Our Blue Skies Back* movement. Refraining from open confrontation and contestation, and thus

[468] Broadbent, *Environmental Politics in Japan*, p. 120.
[469] Ibid.

often from ‘protest’ per se, but pursuing a collaborative approach, the women’s activism often fails to gain attention or recognition as social movement. However, as highlighted in this thesis, it is an exemplary case of citizens adopting civil society as an ideal type of society, and protecting their natural and social environment through a collaborative movement based on ideas of a just society.

By placing the focus on actors (housewives) and a historical period (1950s and early 1960s) that are usually not associated with anti-pollution protest and citizens’ science, this dissertation generated new understanding of the social dynamics in the 1950s and 1960s. It revealed the indigenous roots of a Japanese democracy based on mutual aid, and its unique application in localities like Tobata, and showed that already in the 1950s, local movements started to be concerned with both the state of the environment and the repercussions of unencumbered economic growth. Whilst Japan’s 1960s are predominantly associated with consumerism and large support amongst the general population with the government’s policy to prioritise GNP growth over all other policy areas, this thesis revealed that citizens were increasingly aware of the high price they were paying for Japan’s economic miracle years. It highlighted the constrenation even housewives, who tended to benefit substantially from the new wealth and the advent of electric home appliances, had, revealing a discourse that was highly critical of a (Western) modernity that overturned ideas of social justice.

Investigating the everydayness of pollution, this thesis brought to light the immense mental and physical pain pollution inflicted on communities such as in Tobata. It highlighted the dichotomy between citizens contributing to Japan’s rapid industrialisation as a workforce (or family members of employees) in the heavy and chemical industries during Japan’s economic ‘golden age’ in the 1960s, and the moral and social tensions this rapid growth evoked by destroying the environment, human health, and often also social stability and the nucleus of society, namely local communities. Looking at the ‘everydayness’ of pollution in 1960s, as well as the solution taken from the everyday life of housewives, it pays tribute not only to the many unknown actors of the *Give Us Our Blue Skies Back* movement, but also to the thousands of citizens who suffered in silence in Kitakyūshū’s polluted high economic-growth years.

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