



# EMERALD

EMERALD

## Teaching Case #05:

### Dirty business?

The history of Finnish waste and recycling companies

Developing an Erasmus Mundus Joint Master's Degree on Sustainable Natural Resource Management and Long-run Economic Development (EMERALD).

Project number:  
2020-1-NO01-  
KA203-076528

This work is licensed under  
CC BY-NC-ND 4.0



 **NTNU**  
Norwegian University of  
Science and Technology



Co-funded by the  
Erasmus+ Programme  
of the European Union



DISCLAIMER: The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Kati Toivanen & Niklas Jensen-Eriksen

# Dirty business? The history of Finnish waste and recycling companies

Is waste a “dirty” word? History does not give a clear answer to this question.

Waste means something, which is discarded and unnecessary, often unclean; something, which you want to get out of your sight. Time can be also wasted; and land which is no use to humans, is often called a waste land.<sup>1</sup>

People who have handled waste have not been popular either. They have not been highly paid, not even in wealthy societies, even though their job has been and is necessary for the society. Without them, we could be buried in waste, which often also has a nasty smell, but we do not stop to thank people who collect garbage from the streets or from our apartment buildings. If the system of waste collection works smoothly, we can adopt the attitude: out of sight, out of mind.

Historians have shown that people who have handled waste have often been people who have had few other options: they have been poor, women, children, immigrants or belonged to ethnic or religious minorities.<sup>2</sup> Persons born into rich families have not usually ended up in waste business. Sometimes people involved in the field have been seen as criminals: The official occupation of Tony Soprano, the fictional mob boss from the highly popular TV series *The Sopranos*, is a waste management consultant.

Yet, one could tell story of waste in a positive light as a story of recycling. Preindustrial societies did not produce much waste, because most things were reused, often by the users or their families themselves. There were also people like the “rag-and-bone men”, who collected old textiles and other items and sold them to merchants who converted them to new products. In 1884, there were 40,000 persons collecting rags in Paris.<sup>3</sup> In the latter part of 20<sup>th</sup> century the word “recycle” was borrowed from oil-

refining industry to describe collection and reuse of materials.<sup>4</sup> Today, it is regarded as valuable private and public activity. A good citizen recycles and does not just throw everything in one bin. We might also consider whether we should reduce our consumption and hence produce less waste. Often we do not; wealthier nations and people tend to create more waste.

Recycling is not the only positive word, which has been invented to describe old activities. Circular economy is a popular concept in the 21st world, although it describes activities, which are not new. “Green entrepreneurship” is another new concept.<sup>5</sup> You can try to make money, save the planet and feed your family all at the same time – in theory at least.

In this paper, we describe how waste as a business sector evolved in one Nordic country, Finland, from the late 19<sup>th</sup> century to the present day. Large-scale recycling is only possible if there are public or private systems that move discarded materials forward. From the 19<sup>th</sup> century, municipal authorities in a number of countries, including Finland, created waste collection, sorting and burning mechanisms and plants. A substantial part of the waste, especially those materials, which had monetary valued, were nevertheless still handled by entrepreneurs, companies and people trying to earn living.

The 19<sup>th</sup> century Finland was small, poor, peripheral and rural area that belonged to the Russian Empire. In 1917, it became an independent democracy, and gradually a rich industrial nation. The rise of Finnish manufacturing industries has been analyzed in a number of works, but the story of how it handled its waste has attracted less attention from scholars. Who were the people involved in the “dirty business”? In these following sections, we tell some of their stories.

### **Rags, bones, and scrap: new business ventures**

The late 19th century was an era of entrepreneurship, when new companies were set up in a number of European countries. Finland, a small Grand Duchy, which belonged to Russian Empire, but whose culture and society resembled more its Western neighbors, Sweden and Norway, was no exception.

There were plenty of opportunities for new businesses: international trade grew; barriers of trade declined both within countries and between them; and technology developed. The demand for raw materials increased, and this opened up new possibilities for Finnish entrepreneurs, who had access to the country’s vast forests. New sawmills, as well as pulp and paper factories were set up, and these enterprises exported their products to the growing Western European and Russian markets. Historians have recognized that most of new forest industry entrepreneurs belonged to the traditional elite of the

country: the bourgeoisie, nobility, civil servants and clergy. They had social and monetary capital to embark on new large-scale business ventures.<sup>6</sup> Many of these people and their families became rich and celebrated.<sup>7</sup>

There was another group of entrepreneurs who also embarked on new business ventures involving raw materials, but they did not belong to the traditional elite of the country and did not become famous or celebrated. Furthermore, Finnish historians have only recently become interested in their activities. These entrepreneurs were collecting and reselling secondary raw materials, known often simply as waste.

Waste was useful: paper was traditionally made from textile fibers. Rags were needed so badly that people collecting them showed up in the battlefields of the Napoleonic Wars and the US Civil War. They stripped the clothes off dead bodies and sold the bloody items to paper mills.<sup>8</sup> In the middle of 19th century, wood began to replace rags as the main raw material for paper industry, but for a long time textiles were also needed. Collecting rags was vital occupation but hardly prestigious one. The people involved in it in Finland and in other countries belonged to the ethnic or religious minorities, were poor, or otherwise marginal. They might nevertheless be innovative: a group of Finns living close to the Russian border in the Karelian Isthmus managed to develop a form of barter trade; they acquired pottery and other earthenware from factories there or from nearby St. Petersburg, carried the merchandise to various parts of Finland and exchanged it for rags from farm houses. The agricultural population wanted to buy new goods but had limited amounts of cash. Finnish newspapers claimed that the travelling rag collectors also sold forbidden goods, such as alcohol and other intoxicating substances.<sup>9</sup>

Finland's Jewish population was actively involved in the selling of second-hand clothes. The Jewish community was small, probably less than 1,000 persons, and consisted of men from other areas of the empire who had been drafted to Russian army and had served in Finland, and their family members. After the military service was finished, they had the right to stay in the country. Yet, the Finnish authorities severely limited the rights of Jews, including what kind of work they could do. Reselling and repairing used clothes was one of the few accepted occupations, and many Jews earned a living this way. They set up shops in a small market place called Narinkka in Helsinki. Many members of this originally poor community gradually became successful, often by selling uniforms to Russian troops, and played a key role in the emergence of the ready-to-wear Finnish clothes industry.<sup>10</sup> Moses Skurnik

(1880–1934), a textile entrepreneur, invested his proceeds in real estate and stock markets, and became a major stockbroker. He took big risks and made, borrowed, and lost a lot of money. His volatile career ended in a plane crash in Central Europe.<sup>11</sup>

Scrap was another undervalued but important sector. Historically, adding scrap to the raw material pool has been both a strategic business choice but also a necessity for steel producers in Finland, who did not have enough iron ore reserves of its own. Thus, the foundry and steel industry imported iron ore already in the latter part of 19th century and began using domestic and foreign scrap. This, added with a huge development leap in melting technology and some liberalization in laws considering entrepreneurship, finally led to a birth of a new group of professionals, the scrap dealers.<sup>12</sup>

One of the first Finnish scrap businesses, Georg Barkoff, started with another valuable waste material, bones. Barkoffs belonged to a minority of Greek orthodox Russian immigrants, who often arrived in Finland with several brothers and became entrepreneurs in different fields. In trading, Russian entrepreneurs often passed the business later to their sons.<sup>13</sup> Georg Barkoff married a Finnish woman, had several children and a flourishing bonemeal factory and scrap business. He was a well-known “iron merchant” in the city, became wealthy enough to put his son in art school, and active in society and business circles. After Barkoff died in 1899 in Helsinki, his wife Maria Barkoff continued the business for a few years and about ten years later their son, Ivan Barkoff, took the responsibility of the family business. Ivan Barkoff was fined for purchasing stolen scrap more than once, but otherwise Barkoff’s business seemed quite successful. Scrap dealers later hailed him as a pioneer in their field. His daughters continued the business after his death at least for a few years, which meant that the same family operated in waste raw material business for more than 70 years.<sup>14</sup>

During the First World War, scrap became particularly valuable. A steel factory whose raw material supply was entirely based on scrap iron was founded in 1915 in Vuoksenniska, Imatra. In 1917, Finland became an independent country, and, after bloody civil war in 1918, a parliamentary economy with an expanding economy. The demand for iron and steel continued to grow.<sup>15</sup> In 1919, the largest steel producers in Finland founded their first purchasing company, Oy Järnbruksförnödenheter Ab (JBF), which was in practice a purchasing cartel. Its task was to acquire the needed scrap raw material for its owners with reasonable prices. JBF also tried to influence Finnish government trade politics and aimed for tighter laws to control the scrap trade.<sup>16</sup> Scrap markets nevertheless stayed free the whole 1920s and the first restrictions concerning foreign trade only emerged during 1930s. Purchasing cartels,

however, became a permanent fixture of the sector. Major industrial buyers of scrap and waste paper set up purchasing organizations in order to reduce competition and push prices downwards.<sup>17</sup>

### Shortages and booms

The Second World War forced countries into unprecedented salvage drives of all waste raw materials; scrap metals, waste paper, rags and bones being the most important ones. The rhetoric used in the posters appealing to citizens to take part in salvage in different European countries were remarkably similar.<sup>18</sup> For a short period of time, entrepreneurs in scrap business could feel their work was highly appreciated. This, however, was only temporary, as historian Carl A. Zimring has argued and Finnish scrap entrepreneurs from different generations have also confirmed.<sup>19</sup>

Most of the restrictions that the Finnish government imposed on foreign trade during the Second World War were lifted in the 1950s and 1960s, but this did not apply to scrap iron and metals which were considered strategic raw materials. The export bans were gradually lifted only in the mid-1990s when Finland joined the European Union. The export ban made it difficult or even impossible for most small and medium-sized enterprises to expand their business. However, they could circumvent this ban by concentrating on materials that were not needed by the Finnish steel industry and could be exported under a license or by processing the waste material further so it would no longer be classified as a raw material.

Kuusakoski Oy, often referred to as “the biggest and the fairest” inside the scrap business, was a good example of a company which could succeed by focusing on exports. The seeds of its success, however, were laid much earlier. In 1914, in the city of Viipuri, Grand Duchy of Finland, a young Jewish cello student Donuard Kuschakoff (from 1934 Kuusakoski) needed more money and began collecting rags and scrap. His idea was to deliver them to paper and steel companies to be used as raw material. In the beginning, the young entrepreneur concentrated in rags, but quite quickly started focusing on more valuable scrap metal. The First World War created a growing demand for all raw materials, waste included. Kuschakoff purchased rags from the rag-and-bone men who circled in the countryside and small towns and villages with their horse carriages. The company, then called Karjalan Lumppu- ja Romuliike (Karelian Rag and Scrap Company), invested in trucks already in 1927 and employed around 20 people. The expansion was possible because Finland, along with other European countries experienced an economic boom in 1920s.

Later, the Second World War forced the company to leave Viipuri, which Finland had to hand over to the Soviet Union, and move permanently to Helsinki. At the same time, Kuusakoski got new competitors, as some of the refugees from the areas Finland lost to the Soviet Union entered the scrap business.

In the post-war decades, Kuusakoski Oy began investing in technology, laboratories, and research and was in many ways a front-runner in the sector. The company began to export while export ban was still on because it melted aluminum and processed it to ingots. This was “a product” and could therefore be exported.<sup>20</sup>

The post-war period from 1950s to the end of 1960s was an era of economy growth. Business flourished and many scrap companies were born. Scrap salvage grew from 100,000 tons in the end of 1940s to almost 500,000 tons by 1970. Most of the work was still done by hands and only a few companies had specific processing tools. From the 1960s onwards, the businesses began investing in better tools like cutters and baling machines and also trucks that had lifting equipment. Scrap was still sometimes carried with horses, boats and even bicycles, but the State Railways became crucial in longer distances and as an organization renting plots to scrap dealers.<sup>21</sup> Waste paper collection grew as well and numerous small companies operated and were founded in the field.<sup>22</sup>

Rags were an important part of the Finnish recycling business still in the first postwar decades. Even though the used amounts of scrap exceeded rags multiple times,<sup>23</sup> the importance of the latter can be seen for example in the names of the companies which often had both words “scrap” and “rags” in them. There were also firms that based their entire business in collecting rags.<sup>24</sup> After Second World War, ca. 10,000 to 20,000 tons of rags were used yearly to produce roof felt, cotton wool, flock, yarn and blankets, and paper. Three procurement and sorting companies coordinated the salvage that scrap and rag businesses did. Less than half of it could be salvaged from Finland. In 1960s and beginning of 1970s, rags were both exported but also imported. Yet, a lot of rags ended up in landfills. Logistics, transport costs and storing, were too expensive compared to the small use and revenue and overall, the business possibilities were seen as “quite limited”.<sup>25</sup> In the beginning of 1980s, only a few hundred tons of rags were used in Finland on a yearly basis, a few hundred tons went to exports. Both rag collectors and industrial users’ stores kept on growing. Times were changing and in 1983 the Alliance of Finnish Raw Material Recycling (founded in 1950) announced that the “- -production of raw felt and, with it,

the salvage of rags have ended in Finland.”<sup>26</sup> One form of recycling business came to its end, but new waste problems began to emerge in the form of plastic, electronic waste, and synthetic textiles.

During the 20<sup>th</sup> century, one could regularly read from newspapers how and why this or that waste material was not properly salvaged and re-used, even though in many cases, as pointed out, the collection was quite well-organized.<sup>27</sup> The key word seems to be “business based”. Experts in different waste materials have stated very firmly that “recycling works when it is commercially viable.”<sup>28</sup> Scrap glass, for instance, had for long been a recyclable waste material, but always in a side role in recycling business. There were glass factories that needed it and willingly bought it, and after a municipal collection experiment in late 1970s the amount of collected scrap glass grew from 2,000 to over 6,000 tons. Salvage was still too low. In addition, according to an entrepreneur in waste business, the price glass factories paid for the scrap glass was too low compared to costs for the collector – investing in new processing equipment, for example, was not profitable for a scrap dealer.<sup>29</sup>

Although most companies involved in scrap and wastepaper business were small, many bigger industrial giants recognized the significance of recycling as well. Steel, engineering, timber, pulp and paper companies created substantial amount of waste during their production processes and made determined efforts to utilize that waste. Retail giants were also active. The Finnish grocery trade was highly concentrated and from the 1950s onwards, and more successfully in the 1970s, the sector created a centralized and highly effective deposit system, which encouraged customers to return their used cans and bottles to shops or to other collection points.<sup>30</sup> In the early 21<sup>st</sup> century, over 90 per cent bottles and cans are recovered and therefore the Finnish government has declared the system as a “circular economy success.”<sup>31</sup> If a person is too lazy to take the item back to the store, and decides to throw it in a street or public bin, there is often someone who picks it up to collect the deposit. That someone is usually a poor person or an immigrant.

The scrap, waste paper and other recycling sectors were growing but were not necessarily valued by the society. Many companies in the field were small and family-owned and their children learned about the negative image of their parents’ occupation already in school yards. One entrepreneur had, as a kid in the 1950s, changed school and wondered what to tell teachers and new schoolmates about his father’s profession. The father advised him to say that he was a former military captain. A few decades later, three school girls from different Finnish cities, all of them later in leading positions in their family scrap businesses, faced bullying. One of them recalls that bullying stopped a couple of years later when the



bullying kids got summer jobs in her father's business. Another child of an entrepreneur family told schoolmates her father was a truck driver – he did drive one as a part of his job – and mother was a housewife even though the mother took care of all the accounting and other paper work for the family scrap business. The third girl lived in a growing little city, but her schoolmates were mostly farmers' kids. As an entrepreneur's kid with a swimming pool, she was envied and called the daughter of “a shit-driver”, among other things.<sup>32</sup>

Some outsiders without family connections nevertheless joined the business. One, for instance, did not know how to tell people where she worked, referring, a bit ashamed, to the company as “some trash firm”, but eventually had a long and prosperous career in the company's service. Others accepted an invitation to work for a scrap business. This was the case with a young engineer Ola Eklund. A scrap entrepreneur Väinö Ljung asked him to work for him because he himself wanted to “drive the scrap” and leave paper work for someone more educated. In the beginning Eklund's father was a bit disappointed to his son's decision to go to waste business and thought his good education was literally wasted. Eklund, however, made a long career in scrap business.<sup>33</sup>

The companies did occasionally try to improve the image of their sector. When the 1970s environmental movement criticized Finnish pulp and paper industries, which mainly used virgin fiber, Paperinkeräys Oy, a waste paper company owned by the major pulp and paper companies, announced that salvaging waste paper was a form of “nature conservation”. They also changed the Finnish name of waste paper, *jätöpaperi*, to *keräyspaperi* (“collected paper”) just to get rid of the negative image of the word waste (*jäte*).<sup>34</sup>

The Finnish Scrap Dealers' Association also considered in the early 1990s whether it should replace the word scrap (*romu*) with something like “recycled steel”. However, the members, mostly small and medium-sized companies with a long history, decided to keep the traditional name which was seen to best describe all the aspects of the profession. Even many new companies founded during and after 1990s have adopted the beloved word “romu” in their names.<sup>35</sup>

### **Saving the planet while making money?**

By the 1990s, the image of recycling business had entirely changed. Consumers and governments had begun to worry about the impact of industry, transport and consumption on the planet. Tough environmental legislation was introduced in a number of countries, including Finland. In 1995, the

country also became a member of European Union, which meant that all EU legislation applied to Finland as well. People in affluent countries like Finland continued to consume stuff, but they had also become interested in recycling. As historian Frank Trentmann observed, previously in history waste had been handled by poor people, but in the 21<sup>st</sup> century the rich were also “getting their hand dirty” because “it is a sign of environmental awareness that marks one out as a responsible citizen.” Otherwise, lifestyle did not necessary change, which meant that recycling became “the ally of high-octane consumption.”<sup>36</sup>

Finnish recycling business continued to grow. It was boosted by technological change, changing values, tougher legislation, but also entrepreneurship. Two scrap companies that started in 1990s have made it to the top of today’s Finnish metal recycling business with different strategies. Eurajoen Romu Oy (Eurajoki Group) was founded by a 19-year-old Juuso Luodesmeri in 1994 and has in recent years grown aggressively by acquiring other, sometimes very old, scrap businesses. Around the same time Romu Keinänen Oy was set up by Jyri Keinänen, a former construction worker in his 30s, who had previously worked for a long time in the Soviet Union, where several Finnish construction companies had operated.

When Jyri Keinänen began his business in the mid-1990s, he only had a van, hammer, shovel, and his hands and he didn’t count the hours the work took. Keinänen formed links with traditional, well-known scrap businesses in and around Helsinki and sold his scrap to them. After the first years, his wife, brother and uncle joined him in the company.

Moves by bigger players opened up new business possibilities. Kuusakoski had been the only bigger buyer of the kind of scrap that needed further processing in shredders, but in the beginning of the 2000s, the Nordic giant Stena Recycling began to compete in this field. This broadened the possibilities for small and medium-sized scrap businesses who also benefitted from rising raw material prices. As Keinänen put it, money started flowing to scrap dealers and it looked like the flow would never stop. Romu Keinänen Oy decided to loan money, and invest first in a large steel cutter and then in a new scrap yard. As a risk taker, Keinänen even continued building while still waiting for certain permits required in the field. In his opinion, he could have afforded fines for such actions, but he could not afford being left behind in the competition when markets were hot, and scrap was selling. During the good years, the company doubled its turnover every year. Taking risks had been a success. The sudden stop came in September 2008 when, as a result of global financial crisis, prices dived, and markets

crashed. Keinänen had huge debt burden, a new yard, and big stores of scrap. The bankruptcy of Koverhar steel factory hit Keinänen hard.

Jyri Keinänen's company began emptying stores by starting to export black iron to India and metals to Europe, and selling at a loss if needed, just to get cash. The strategy proved successful. "It was about hard work and good luck", Keinänen described later. Slowly the markets opened, and a few good years were ahead. The company received large demolition works, for instance. From 2010 the company started hiring, and in the early 2020s employs between 70 to 80 people. Next generation is already in the business and the company has won several entrepreneur or enterprise of the year awards and keeps on growing.<sup>37</sup>

Like Jyri Keinänen, Juuso Luodesmeri, the founder of Eurajoen Romu Oy is almost completely a self-educated first-generation scrap dealer and has won in many regional and national entrepreneurship awards during decades. In August 1994, he had just finished his military service and had no plans of a higher education, which shocked some in his family. However, he had already some experience on scrap salvaging from high school years and had even received a tiny loan from his grandmother. In half a year, Luodesmeri hired his first employee who was still decades later in the company's service. Export was Luodesmeri's strategy from early on.

"I don't think I will ever again experience anything as significant as the 'China phenomenon' in the turn of the century", Luodesmeri recalled. The Chinese bought everything he could sell. He began his entrepreneurship the same time as long-lasting Finnish government export bans were lifted and invested in necessary machinery. His company was originally a small exception among big players. A few lucky events and the idea of "fast circulation with a small margin" helped Eurajoen Romu to grow to a medium-sized company. The financial crisis in 2008 affected Eurajoen Romu severely as well, but the company got on its feet quite quickly and decided to begin large investments. A shredder was completed in 2012 and five years later the company had a new battery processing plant. Scrap business is usually the first to start rising from the depths of recession, as it is also the first sectors to suffer from it. These days 90 percent of Eurajoen Romu's turnover comes from exports.

Luodesmeri had from the beginning tried to encourage scrap businesses to network more efficiently, arguing that the better small businesses are connected, the stronger position they have in competition with large companies. Networking led to acquisitions. It has from 2010s onwards bought several

traditional, small and medium-sized scrap companies and in this way, gained strength and equipment. The latest acquisitions have included one of Finland's oldest scrap companies, over 120-year-old Rautasoini Oy and the pioneer in recycling lead acid batteries in Finland, Suomen Akkukierrätys Oy.<sup>38</sup> "We buy knowledge of the field and key-people. In this business one needs people who can be trusted", Luodesmeri has said after winning the National Entrepreneur of the Year award in 2022.<sup>39</sup>

By turnover, Kuusakoski Oy is still in the early 2020s the biggest scrap company in Finland, way ahead the second biggest Stena Finland (150 million), but Eurajoki Group is becoming one of the biggest in Finland (140 million), while Romu Keinänen has also acquired a turnover more than 55 million.

Recycling had become such a promising field of business that it attracted outsiders. Lassila & Tikanoja, set up in 1905, was originally a trading company, and later a conglomerate, with no presence in waste and recycling businesses. By the 1970s, the management of the company had become concerned that it was mainly operating in mature business areas, such as textiles, with low profitability and few growth prospects. The company decided to seek new business areas. In 1988–1989, it acquired controlling stakes in plastic bag and packaging manufacturer Amerplast and cleaning and maintenance business Säkkiväline. Amerplast's products included biodegradable Ecothene plastic bags, and Säkkiväline was involved in waste management. Otherwise, companies were not particularly "green", and in 1992, the Finnish authorities forbid Amerplast from marketing its Ecothene bags as environmentally friendly.<sup>40</sup> A study by the Finnish state research agency VTT later concluded that they decomposed only if they are in direct contact with sun light, but not if they are buried under ground.<sup>41</sup>

Lauri Komulainen, CEO of Säkkiväline, had already during the energy crisis of the 1970s argued that in the future waste would be seen as valuable raw material and a source of energy. Yet, it turned out to be difficult for the company to develop profitable business models for recycling other goods than paper. This changed in 1995 when Finland joined the European Union and environmental legislation imposed strict demands on manufacturing companies. As a specialist in recycling, Säkkiväline was in an excellent position to strike deals with industrial companies on the collection and reuse of the goods they were selling. This became one of the growth areas for Säkkiväline and its parent company Lassila & Tikanoja, which were merged in 2002. In 2000, Lassila & Tikanoja also acquired the Finnish operations of US giant Waste Management. At the same time, it divested other business, and by the beginning of 21<sup>st</sup> century, the former conglomerate had become a leading Finnish environmental services company in Finland.<sup>42</sup>

L&T, as it was now usually known, strengthened even more its presence by acquiring in 2006 the majority of shares in Suomen Keräystuote Oy, a waste paper collector, whose business also relied on EU environmental legislation. Importers and producers of paper were obliged to organize collection of their discarded products. It was easier for producers give this task to specialist companies than to do it themselves. Two companies controlled the field and Suomen Keräystuote Oy was the smaller of these.<sup>43</sup>

The public image of the industry has also changed. Recycling is now both mandatory and a virtue. Some businesses that have started as small waste paper and scrap companies have even become attractive places for students and teenagers looking for summer jobs.<sup>44</sup> Companies operating in the field underline their role in the circular economy. In September 2023, Kajaanin Romu Oy, a scrap company from Northern Finland, bought a huge front-page ad in Helsingin Sanomat, the biggest newspaper in Finland. The ad said: “In the old world scrap was dirty, useless and ugly, something to be destroyed in hiding in shame. Today it is beautiful, pure, valuable and something to cherish.”<sup>45</sup>

## References

- 
- <sup>1</sup> The relationship between humans and waste has been studied widely by scholars from different fields, including history, anthropology, sociology. See for example Douglas 2003 (1966), Hoy 1995, Strasser 1999, Valkonen & al. 2019, Airaksinen 2010.
- <sup>2</sup> See e.g, Zimring 2004.
- <sup>3</sup> Trentmann 2017, p. 628.
- <sup>4</sup> Strasser 1999, p. 72. The oil industry began using the word in 1920s when it wanted to describe the process where, to reduce waste, the partly refined petroleum was sent through the refining cycle again. See also *Oxford English Dictionary*.
- <sup>5</sup> Jones 2017.
- <sup>6</sup> Kuisma 2006, pp. 204–216.
- <sup>7</sup> E.g. Siltala 2023.
- <sup>8</sup> Kurlansky 2016, pp. 245–246.
- <sup>9</sup> Wassholm & Sundelin 2022.
- <sup>10</sup> Ekholm 2019.
- <sup>11</sup> Ekholm 2011; Skurnik 2013.
- <sup>12</sup> Laine 1948–1952; Zimring 2009; Fellman 2008, pp. 146–149; Toivanen 2020.
- <sup>13</sup> Hakala 2002, p. 33.
- <sup>14</sup> The Finnish National Archive, Finnish Patent and Registration Office Archive, Trade Register, dissolved companies Eb:27, Eb:768, Eb:2301; Helsinki city Archive, Ca:186 Records of Magistrate, 14 March 1868; National Library: *Uusi Suometar* 6 August 1899, *Hufvudstadsbladet* 5 August 1899, *Hufvudstadsbladet* 19 May, *Karjala* 17 September 1940; Reitala, 1997; The Finnish Scrap Dealers’ Association Archive, Annual Report 1947; Leinonen 2002, pp. 116–117.
- <sup>15</sup> Koskinen 2016, pp. 54–55; National Library, Industrial Board, *Official Statistics of Finland*, Industrial Statistics 31–46, 1914–1929 and Statistical Office/Custom Board, *Official Statistics of Finland*, Foreign Trade Statistics 1920–1930.

- <sup>16</sup> Fiskars historical archive, Fiskars archive, Hl:4, AB Järnbruksförnödenheter 1920–1930, Stadgar och Protocoll, 29 December 1919; Fiskars archive, Hn:1, Skrot och råvaror, Skrothandel lagförslag 1919; National Library, *Suomen Teollisuus – Finlands Industri* “Romurautakysymys. Sen kansainvälinen merkitys”, 16 September 1929.
- <sup>17</sup> About wastepaper see Toivanen 2019; About scrap. see Jalas 2000 & Toivanen 2020; Some small histories have been written (in Finnish) about former steel industry scrap cartels by their former employees: Luukkonen 1977 (unprinted) and Hirvikallio 2014 (printed).
- <sup>18</sup> See for example Weber 2022, Denton 2014, Thorsheim 2015 & Toivanen 2016.
- <sup>19</sup> Zimring 2009, pp. 100–101; Toivanen 2020.
- <sup>20</sup> About Kuusakoski family in the scrap business see mm. Möttönen 2017; Lajunen & Hämäläinen 1994; Jalas 2000; Toivanen 2020.
- <sup>21</sup> Interviews with Matti Eskelinen/Rolupa Oy, Mute Oy & Iisalmen Teräs ja Romu Oy, and Kari Evesti/Tiilimäen Romuliike Oy; Toivanen 2016.
- <sup>22</sup> The amount of salvaged wastepaper per year grew from few dozen tons in 1950s to over 500 000 tons in 1990s. Toivanen 2016.
- <sup>23</sup> National Library, Industrial Board, *Official Statistics of Finland*, Industrial Statistics 31–46, 1914–1929 and Statistical Office/Custom Board, *Official Statistics of Finland*, Foreign Trade Statistics 1920–1930; The Alliance of Finnish Raw Material Recycling archive, Statistics from 1950s to 1970s.
- <sup>24</sup> The Finnish Scrap Dealers’ Association archive, lists of members; The Finnish National Library digital collection, different business, industrial, and address calendars from 1910s to 1950s.
- <sup>25</sup> Toivanen 2016, pp. 13–15, 26–27, 38.
- <sup>26</sup> Toivanen 2016 pp. 50–51.
- <sup>27</sup> Paperinkeräys Oy archive, newspaper collection; The National Library digital newspaper collection.
- <sup>28</sup> Toivanen 2016, p. 6.
- <sup>29</sup> Toivanen 2016, pp. 41–43; Interview of waste business entrepreneur Heikki Häti in *Etelä-Suomen Sanomat*, 26 March 1984 (Viljo Aidantausta, ”Jäteromun keruussa ei vaikeuksia Riihimäellä”).
- <sup>30</sup> Tamminen & Parpola 2012, 307–308; Komulainen 2023, pp. 133–134.
- <sup>31</sup> <https://finland.fi/life-society/circular-economy-success-finlands-recycling-programme-keeps-bottles-and-cans-off-the-streets/> (accessed 2 December 2023).
- <sup>32</sup> Interviews with Kirsi Laine-Mäki/Envor, Sini Lökström/Tikkurilan Romu, Kristiina Keskitalo/Suomen Akkuierrätys, Matti Nyysönen/Kajaanin Romu Oy and Arto Kokko/Värimetalli Oy & Teollisuuspurku Oy.
- <sup>33</sup> Interviews with Maria Hellsten/Suomen Keräystuote Oy & Ola Eklund/Kuusakoski Oy.
- <sup>34</sup> Toivanen 2016, p.30; Toivanen 2019, pp.18–19.
- <sup>35</sup> Toivanen 2020, pp. 166–167.
- <sup>36</sup> Trentmann 2017, pp. 651–652.
- <sup>37</sup> Interviews with Jyri Keinänen/Romu Keinänen & Harri Merikanto/Kannon Romu Oy.
- <sup>38</sup> Interviews with Juuso Luodesmeri/Eurajoen Romu Oy/Eurajoki Group & Vesa Kopra/Kuusakoski Oy.
- <sup>39</sup> <https://www.yrittajat.fi/uutiset/eurajoen-romu-oy-n-juuso-luodesmeri-on-valtakunnallinen-vuoden-yrittaja-2022-uepa-kasvutarina/> (accessed 4 December 2023).
- <sup>40</sup> Koskivirta 2005, p.185, pp. 252–263; ”Markkinatuomioistuin kielsi kolmen yrityksen ympäristövaihteet”. *Helsingin Sanomat*, 24 February 1992.
- <sup>41</sup> ”Hampurilaispakkaukset ja kertakäyttövaipat kelpaavat kohta kompostiin Uudet biomuovit tulevat lähivuosina”. Timo Kirves, *Helsingin Sanomat*, 16 November 1994.
- <sup>42</sup> Koskivirta 2005, pp. 293–296, 311–312, 316, 325–330.
- <sup>43</sup> Toivanen 2019, pp. 130–139, 152, 157; ”L&T osti Keräystuotteen enemmistön”. Pentti Laitinen, *Helsingin Sanomat*, 22 April 2006.
- <sup>44</sup> Interview with Kirsi Laine-Mäki/Envor Recycling. In the city of Forssa Envor has occasionally been the second wanted summer job after the municipal waste company Loimi-Hämeen Jätehuolto Oy.
- <sup>45</sup> ”Romu oli vanhassa maailmassa likaista, hyödytöntä ja rumaa, häveten piilossa tuhottavaa. Tänään se on kaunista puhdasta, arvokasta ja varjeltavaa.” *Helsingin Sanomat*, 21 September 2023.



UNIVERSITY OF HELSINKI  
FACULTY OF ARTS

## Bibliography

- Airaksinen, Timo. 2010. *Saasta. Filosofinen johdatus jätteen todellisuuteen*. Helsinki: Johnny Kniga.
- Denton, Chad B. 2014. Steel of Victory, Scrap of Defeat: Mobilizing the French Home Front, 1939–40. *War & Society*, 33:2, pp. 98–130.
- Douglas, Mary. 2003. *Purity and Danger: An analysis of concepts of pollution and taboo*. New York: Taylor and Francis. First published 1966.
- Ekholm, Laura. 2019. Skurnik, Moses. *Kansallisbiografia*. Helsinki: Suomalaisen Kirjallisuuden Seura, <https://kansallisbiografia.fi/kansallisbiografia/henkilo/9303>
- Ekholm, Laura Katarina. 2019. Jews, second-hand trade and upward economic mobility: Introducing the ready-to-wear business in industrializing Helsinki, 1880–1930. *Business History* 61:1, pp. 73–92.
- Fellman, Susanna. 2008. Growth and investment: Finnish capitalism, 1850s–2005. In *Creating Nordic Capitalism: The business history of a competitive periphery*. Edited by Susanna Fellman, Martin Jes Iversen, Hans Sjøgren and Lars Thue. New York: Palgrave Macmillan.
- Hakala, Marjaana. 2002. Helsingin venäläiset kauppiaat ja muut elinkeinonharjoittajat vuosina 1809–1840. In *Venäläiset kauppiaat Helsingin historiassa*. Edited by Svante Konstantin Kuhlberg. Helsinki: Helsingin Venäläinen Kauppiasyhdistys ry.
- Hirvikallio, Mervi. 2014. *Osuuskunta Teollisuuden Romu OTR 1977–2010*. Vantaa: OTR.
- Hoy, Suellen. 1995. *Chasing Dirt: The American Pursuit of Cleanliness*. New York, London: Oxford University Press.
- Jalas, Aaro: *Kestävää kierrätystä 60 vuotta: Suomen Romukauppiaiden Liitto 1940–2020*. Tampere: Suomen Romukauppiaiden Liitto r.y.
- Jones, Geoffrey. 2017. *Profits and Sustainability: A History of Green Entrepreneurship*. Oxford: Oxford University Press.
- Komulainen, Anitra. 2023. *Robkea kauppaajätti: Keskon historia*. Helsinki: Kustannusosakeyhtiö Siltala.

- Koskinen, Risto Olavi & Pekka Lehonkoski. 2016. *Oli kerran Vuoksenniska. 1, Vuoteen 1945*. Imatra: Studio Niska.
- Koskivirta, Anu. 2005. *Tarina arjesta: Lassila & Tikanoja 1905–2005*. [Helsinki]: Lassila & Tikanoja Oyj.
- Kuisma, Markku. 2006. *Metsäteollisuuden maa: Suomi, metsät ja kansainvälinen järjestelmä 1620–1920* (2nd edition). Helsinki: Suomalaisen Kirjallisuuden Seura.
- Kurlansky, Mark. 2016. *Paper: Paging Through History*. New York; London: W. W. Norton & Company.
- Laine, Eevert. 1948, 1950, 1952. *Suomen Vuoritoimi 1809–1884, I–III*. Historiallisia tutkimuksia XXXI 1–3. Helsinki: Suomen Historiallinen Seura.
- Lajunen, Lauri & Ilpo Hämäläinen. 1994. *Kuusakoski Oy*.
- Leinonen, Maija. 2002. Helsingin Venäläisen kauppiaasyhdistyksen vaiheita vv. 1918–2002. In *Venäläiset kauppiaat Helsingin historiassa*. Edited by Svante Konstantin Kuhlberg. Helsinki: Helsingin Venäläinen Kauppiaasyhdistys ry.
- Luukkonen, Keijo. 1977. *Oy Romurauta Ab. Historiikki 1937–1977*. An unprinted history of Romurauta by it's former CEO.
- Möttönen, Tuomas. 2017. Victor Kuusakoski. *Kansallisbiografia*. Helsinki: Suomalaisen Kirjallisuuden Seura. <https://kansallisbiografia.fi/talousvaikuttajat/henkilo/1543>
- Reitala, Aimo. 2001. Barkoff, Alexander. *Kansallisbiografia*. Helsinki: Suomalaisen Kirjallisuuden Seura. <https://kansallisbiografia.fi/kansallisbiografia/henkilo/3298>
- Siltala, Sakari. 2023. *Korkea peli – teollisuustitaani Walter Ahlströmin elämä*. Helsinki: Kustannusosakeyhtiö Siltala.
- Skurnik, Samuli. 2013. *Narinkkatorilta Kiestingin mottiin: Juutalaissuvun selviytymistarinaa*. Kustannusosakeyhtiö Paasilinna.
- Strasser, Susan. 1999. *Waste and Want. A Social History of Trash*. New York: Metropolitan Books. Henry Holt and Company.



- Tamminen, Seppo & Parpola, Antti. 2012. *K 100: K-Kauppiasliitto 1912–2012*. Helsinki: Edita.
- Thorsheim, Peter. 2015. *Waste into Weapons: Recycling in Britain during the Second World War*. New York, NT: Cambridge University Press.
- Toivanen, Kati. 2016. Kiertotalouden ytimessä. Suomen Uusioraaka-aineliitto 1950–2016.  
<https://uusioraaka-aineliitto.fi/liiton-historiateos/>
- Toivanen, Kati. 2019. *Paperisielut. Suomen Keräystuote Oy 1987–2017*. Helsinki: Siltala.
- Toivanen, Kati. 2020. *Me saamme maailman riittämään. Suomen Romukauppiain Liitto ry. 1940–2020*. Suomen Romukauppiain Liitto Ry.
- Trentmann, Frank. 2017. *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First*. Penguin Books.
- Valkonen, Jarno & Olli Pyyhönen, Turo-Kimmo Lehtonen, Veera Kinnunen, Heikki Hulaja. 2019. *Tervetuloa jäteyhteiskuntaan! Aineellisen ylijäämän kanssa eläminen*. Tampere: Vastapaino.
- Wassholm, Johanna & Sundelin, Anna. 2022, Rag Collectors: Mobility and barter in a circular flow of goods. In Jutta Ahlbeck, Ann-Catrin Östman & Eija Stark (eds.), *Encounters and Practices of Petty Trade in Northern Europe, 1820–1960: Forgotten Livelihoods*. Cham: Palgrave Macmillan, pp. 69–94.
- Weber, Heike. 2022. Nazi German waste recovery and the vision of a circular economy: The case of waste paper and rags. *Business History*, 64:5, 882–903.
- Zimring, Carl. 2004. Dirty work: How hygiene and xenophobia marginalized the American waste trades, 1870-1930. *Environmental History*, 9:1, pp. 80–101.
- Zimring, Carl A. 2009. *Cash for Your Trash: Scrap Recycling in America*. New Brunswick, New Jersey, and London: Rutgers University Press. First Paperback Edition 2009. Original 2005.