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From Shrine to Machine: The Industrial Change and Urbanization of Ota Special Ward, Tokyo, $1900-1960^*$

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Abstract

This article explains how some industries in Ota Special Ward declined or developed when the machinery industry was growing as a case study of the synergy and trade-off among industries in an urban–industrial nexus in Tokyo that mainly consists of Jonan and Joto areas. First, we summarize the growth of manufacturing in Ota Special Ward. Second, we select movie production, leisure, and fishery as three typical industries which had declined and moved outside of the forming urban–industrial nexus. Though the movie production industry had rapidly declined, the leisure and fishery industries had gradually declined. Third, we select a new religious movement as the developed case, esp. Soka Gakkai which have been led by Daisaku Ikeda. In addition, we point that the Ota Special Ward residents have not completely forgotten the history and culture of the pre-urban–industrial nexus, and the memories of it are partially used for city planning. Cultivating these activities is expected to be an essential element for finding better paths of cities in the Great Acceleration.

Keywords: Ota Special Ward, Urban-industrial nexus, New religious movement

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1. Seafront Industrial Complex and Urban Industrial Nexus

One economic characteristic of the Great Acceleration, which occurred after about 1950, is the rapid industrial development of Asia (Sugihara 2018). Although "the world's factory" had been located in Western Europe and the US from the 19th through the middle of the 20th century, constituting the first stage of the Anthropocene era defined by Paul Crutzen, it has moved drastically to Asian countries such as Japan, NIEs, ASEAN, and China in recent decades (Hori and Hagiwara 2019).

Asian industrialization has been fuelled by large amounts of imported resources such as crude oil, coal, and iron ore, although domestic resources, especially coal, played a more crucially important role in industrialization in western Europe and the US. In fact, Japan, the frontrunner of the Asian industrialization became the greatest importer of resources among countries by the end of the 1960s because of rapid economic growth after WWII (Table 1).

Asian countries created seafront industrial complexes to use large amounts of imported resources efficiently. Such complexes typically included reclaimed land and deep ports. Resource-intensive and energy-intensive industries such as iron and steel, petrochemicals, and thermal plants were located on the reclaimed land areas. The deep ports accommodated large vessels such as tankers. Japan's complex was located along the Pacific Belt, which included the four large coastal industrial areas of Keihin, Chukyo, Hanshin, and Kitakyushu, and several other coastal industrial areas. Some developers had already started to create the seafront industrial complex, especially at Keihin along Tokyo Bay from in the 1920s. Development became more scattered after the 1950s.

Such seafront industrial complexes were, however typically located not in the central parts of major cities such as Tokyo and Osaka, but in neighboring areas. In the case of Tokyo Bay, whereas the bay areas of Kawasaki and Yokohama cities in Kanagawa Prefecture, and Chiba and Ichihara cities in Chiba Prefecture became home to resource-intensive clusters, the central wards of Tokyo retained employment-absorbing labor-intensive (by then mostly skill-intensive) industries, which used energy and materials produced by the neighboring resource-intensive cluster. The central wards of Tokyo provided commercial and residential services as well as labor and skill industries. Therefore, Tokyo agglomeration can be viewed comprehensively as an urban–industrial nexus (Sugihara 2018: 90–93).

The creation of seafront industrial complexes and an urban–industrial nexus accompanied the change or destruction of existing industries and the resource nexus. For example, reclamation and dredging to produce the industrial complex destroyed fishery industries and swimming beaches. In addition, the resource-intensive industry development caused severe industrial pollution. Population growth accompanying industrialization gave rise to severe city problems while growing the housing industry. Tracing how these changes occurred and how severe problems were partially resolved is expected to contribute in finding better paths of the Great Acceleration.

This article explains how some industries in Ota Special Ward declined or developed when machinery industries were growing. The explanation represents a case study of synergy and trade-off among industries in an urban–industrial nexus in Tokyo that consists mainly of Jonan and Joto areas.¹ We select movie production, leisure, and fishery as three typical declining industries, and a new religious movement as the developed case. Additionally, we provide an additional explanation for the changes that occurred in Ota brought about by its de-industrialization after the industrialization of the other Asian countries.

2. Ota Area Manufacturing Growth

Ota Special Ward is located southernmost of Tokyo 23 wards and in the north of Kawasaki City belonging to Kanagawa Prefecture. Ota Special Ward having 61 km² is the largest ward of Tokyo 23 wards and contains 712 thousand residents and 3,500 factories around 2015 (Ota-ku 2016: 1–2).

The growth of manufacturing in Ota Special Ward can be briefly summarized. During the Meiji period, the major manufacturing industry in the Ota area, consisting mainly of Omori, Kamata, and Haneda, was straw braid such as straw tape and straw hats. During the Meiji period, this was an important export industry. Machinery industry growth, however, started after 1920, and especially after the Kanto Earthquake of 1923. It occurred subsequent to industrialization in Kawasaki, which started in the 1910s. After the Kanto Earthquake, many factories were moved from Tokyo city to the Ota area. Actually, land consolidation in the Ota

¹ Kobori (2010, 2017, 2018) describes the case of a seafront industrial complex in Kanagawa prefecture, especially Yokohama.

area encouraged some factories' establishment.

During the 1930s, when Japanese heavy industry grew rapidly in the background of Japan's invasion of China, Ota area developed further. Haneda Airport opened in 1931. Subsequently, Ota area was integrated into Tokyo city in 1932. Omori and Kamata wards were established (Ota-kushi 1996: 142–149, 455–456, 490–492; Ota-ku 2011: 5). After the beginning of the Sino–Japanese war in 1937, military equipment production increased rapidly. Dredging of the Keihin Canal started in 1939. A newspaper crowned Ota area prosperity as a "workers' golden age." The red-light district was crowded not by white collar workers, but by blue collar workers (Shoji2018: 70–77).

Although strategic bombing conducted by the US during WWII ravaged the area, Ota's machinery industry rapidly recovered at the beginning of the 1950s. One important trigger was special procurement by US Forces during and after the Korean War in 1950. Although Japan's high-speed economic growth depended mainly on domestic private demand, its technology was related to munitions. Ota Special Ward presented the following remarks: "[special procurement by US Forces to factories] trained manufacturing in Ota ward about technology and quality control really well. It was one of the starting points of manufacturing of Ota, of which we proclaim our pride to the world" (Ota-ku 2011: 5–6).

3. Movie, Shrine and Fishery

The development of machinery industry in Ota area directly or indirectly led some industries to decline and move outside of the forming urban–industrial nexus. Three typical industries are specifically examined herein: one industry rapidly declined; two industries declined gradually.

First is film production. Shochiku Kinema opened the Kamata Studio in 1920 to build "Hollywood in the Orient" or "Cinema Paradiso" (*Kamata March*). The Kamata Studio established Kamata style, which drew the life of the lower and middle classes people with humanity and some famous actors, actresses, and movie directors such as Yasujiro Ozu.

Nevertheless, its production became more difficult when it started to produce talkie films because noise and smoke released from neighboring factories continually increased; airplane noise from Haneda Airport also increased. Reportedly, noise from Niigata Engineering Co. especially affected film production at Kamata Studio. In 1936, Shochiku had already moved its studio completely from Kamata to Ohuna, near Kamakura in Kanagawa prefecture. The severe tradeoff relation existed between the machinery industry and the film production industry: "Cinema Paradiso" survived only 15 years (Ota-kushi 1988: 376–389; Ota-kushi: 1996: 366–368, 517).

The other two cases attempted adaptation to the changing environment after industrialization, although they finally declined. First is the leisure industry. On the map of Ota area in 1902, we were able to identify some amusement facilities such as the iris garden, the plum garden, and swimming beaches (Fig. 1). Ota area was not an industrial zone but a leisure zone for Tokyo residents at that time.

The most popular amusement facility was Anamori Inari Shrine in Haneda village. The original Anamori Inari was a small shrine built during the first half of the 19th century. The land around Anamori Inari was reclaimed to produce paddy fields. Its banks sometimes failed, allowing inundation of the land by ocean water. Therefore, they built a shrine to prevent the banks from breaking. In fact, in Japanese, Ana means hole; Mori means prevention (Suzuki 2004: 223–224).

The small shrine eventually became the talk of the town after 1885 during the Meiji period. They related that the fox, the god of *inari*, cured the disease of a wife of a fisherman in the village. More people came to Anamori Inari after 1894, when a hot spring was discovered; the shrine became larger. It became a popular outdoor amusement facility for Tokyo residents. This process would not be spontaneous, but the result of innovative activities by some entrepreneurs and local efforts eventually produced the shrine and village (Suzuki 2004: 224–225; Suzuki 2019: 98–108).

Keihin Denki Tetsudō (Keihin Electric Railway) Co., a predecessor of Keihin Kyūkō (Keikyu Railway) Co., greatly increased the number of people coming to Anamori after 1902. Keihin connected Omori, Kamata, Anamori Inari Shrine, Kawasaki, and Kawasaki Daishi Temple to compose a sightseeing route. For example, Ichizo Kobayashi, who belonged to Mitsui Bank and who lived in Shinagawa and became the top manager of Hankyu-Toho Group such as Hankyu Railway and Takarazuka Revue later, made a one-day trip with his friend in April 1903. They left Shinagawa at about eight o'clock and went to Omori by government railway, from Omori to Anamori by Keihin to visit Anamori Inari. They ate tempura for lunch

at Anamori and crossed the Tama River by boat to visit Kawasaki Daishi. They returned by Keihin and government railway at about five o'clock p.m. Between the Keihin Anamori Station and the Anamori Inari Shrine, some cafeterias and hotels were clustered. Some specialties such as shellfish dishes, a daruma (tumbling doll), and globefish lanterns were sold.

Keihin opened other outside amusement facilities near Anamori Inari and Kawasaki Daishi to add value on the traditional resort. Keihin opened the play yard and swimming beach near Anamori and the amusement park near Kawasaki Daishi (Suzuki 2004: 225–234).

The environment around Anamori, however, deteriorated gradually after the 1920s because of water pollution directly attributable to factories at Kawasaki (Tokyo-to 1971: 494–495) and the Haneda Airport opening in 1931. That would become one reason that Keihin started to develop swimming beaches along the Miura Peninsula such as Kanazawa and Mabori (Suzuki 2004: 237–238; Ota-kushi 1988: 346–351; Kobori 2018: 93–126).

The resort around Anamori did not decline directly because Keihin also tried to sustain the value of Anamori. Keihin opened additional facilities with swimming beaches such as the club house "with capacity for ten thousand people", a hot bath "with room for one thousand people", and a cleaned ocean water pool (Keihin Kyūkō 2008: 23). Keihin tried not only to address water pollution through cleaning of the water but also to add value to the swimming beach through construction of large facilities near Tokyo (Baba 2017). The pool had 30 m length and 70 m breadth. Keihin advertised it as the No. 1 facility in the Orient and highlighted its location only a half hour's distance from central Tokyo (Keihin 1934).

Following war in 1937 and Japan's defeat in 1945, the resort area of Anamori was eventually destroyed. The Ministry of Communication planned the expansion of Haneda Airport. Therefore, Keihin sold the Ministry the land of the play yard and the pool was reclaimed in 1938. The club house was also abolished around 1942. At the same time, some large factories and its suppliers, which produced munitions, agglomerated around Anamori. The cafeterias and hotels for the Anamori Inari visitors were converted to restaurants and dormitories for workers. The main passengers of Keihin also changed from tourists to workers. The land around Anamori Inari Shrine was requisitioned by GHQ/SCAP in 1945 to expand the airport. The resort area around the shrine was changed completely to the airport (Baba 2017; Suzuki 2004: 238; Ota-kushi 1988: 328–329; Keihin Kyūkō 2008: 24–29). After WWII, major

swimming beaches finally came to be moved to Kanagawa prefecture and areas such as Shonan and Miura, which were connected with Tokyo urban–industrial nexus by train and national road networks ("Shonan no Tanjō" Kenkyūkai 2005: 112–134, 176–221; Kobori 2018: 155–156).

The other case of gradual decline was fishery. Haneda and Omori constituted a major cluster of seaweed cultivation. Fisheries in Haneda and Omori, which could not simply relocate to some other spot as did film production, had tenaciously resisted the urban–industrial nexus. Although they were adversely affected by water pollution after 1920 and although dredging of the Keihin Canal after 1939 narrowed their fishing grounds, the fishing industry dealt with those setbacks through innovation or protests. Techniques of seaweed cultivation progressed after the 1950s, the so-called "the high-speed growth of seaweed cultivation" (Hirano 2016), the output of seaweed cultivation in Tokyo held a second-place ranking in Japan even as recently as 1958.

However, they abandoned their fishery rights in because the water pollution worsened severely and the developmental plan of Tokyo port commenced full-swing befor the Tokyo 1964 Olympic Games (Tokyo-to 1971: 166–168, 244–245, 274–275; Ota-kushi 1996: 471–479). In addition, the abundant fishery had synergy with the urban–industrial nexus because many spots for drying seaweed converted to industrial sites (Ota-ku 2011: 7).

Major clusters of seaweed cultivation in the Tokyo Inner Bay moved from Tokyo to Chiba and the southern areas of Yokohama. Many of these clusters, however, were also diminished by reclamation for production of a seafront industrial complex or urban redevelopment from the 1950s to the 1970s (Wakabayashi 2000 135–273; Hirano 2016). Today the main clusters of seaweed cultivation are located along the Ariake Sea in Kyushu such as Saga, Fukuoka, and Kumamoto.²

However, some reclaimed zones in Ota Special Ward came to be used for resolving city problems. Tokyo Metropolis started to encourage factories in Tokyo to move to Showa, Keihin, and Jonan artificial islands in Ota Special Ward to resolve noise and vibration problems caused by the coexistence of houses and factories. The migration was assisted financially by

² Website of Nori Zōshoku Shinkōkai (<u>https://www.nori.or.jp/work/static_info.html</u>. Last accessed: May 22, 2019.).

Environmental Pollution Control Service Corporation Law, issued in 1965. A complex of small factories belonging to the formed and fabricated materials industry or the surface treating industry aggregated on the islands (Ota-ku 2011: 2).

4. Urban-industrial Complex and New religious movement

Finally, we specifically examine an industry showing synergy with the urban-industrial nexus in Tokyo. It is new religious movements, especially Soka Gakkai. Soka Gakkai, a new religion based on Nichiren Buddhism, which was founded in 1930. Komeito, a political party founded in 1964 was fundamentally supported by Soka Gakkai.

Soka Gakkai and Komeito, led by Daisaku Ikeda (1928–), grew rapidly in the 1960s. Ikeda was born as the fifth son of a poor fisherman in Omori (moving to Haneda later). When he was a junior high school student, he woke up around two or three o'clock each morning to help seaweed cultivation. During 1942–1945, he belonged to Niigata Engineering Co., which produced engines, weapons for suicidal attacks, and other munitions for the navy (Mizoguchi 2005 19–46; Ikeda 1975: 11–71). Half his lifetime had coincided with the industrial change from fishery to machine production in the Ota area.

Ikeda joined Soka Gakkai in 1947 and came to lead the enhancement of Soka Gakkai (Mizoguchi 2005: 73–75). Ota Special Ward was a successful case. The candidate, who was supported by Soka Gakkai, was elected at the first rank in Ota district of the Tokyo Assembly election in 1955. All three candidates supported by Soka Gakkai won the Ota Ward Assembly election that same year (Ota-kushi 1996: 776–777). In the second half of the 1960s, as Komeito Progressed, Komeito was especially strong in Jonan areas such as Ota and Shinagawa and in Joto areas such as Sumida, Koto, Arakawa, Adachi, Katsushika, and Edogawa Wards. It overlaps the urban–industrial nexus in Tokyo (Sugimori 1976: 117). What is the reason for it?

Reportedly, the Soka Gakkai membership in the 1960s consisted mainly of people who had moved from agricultural villages to cities and who could not belong to large companies which supported their members' lives. The underlying reason for the high-speed growth of Soka Gakkai was high-speed economic growth in Japan, which accompanied the congestion of cities and rapid depopulation in villages. The group activities and doctrine of Soka Gakkai charmed the many people who sustained the Japanese high-speed growth at the job site (Sugimori 1976: 111–144; Asayama 2017: 19–50).³ The Soka Gakkai growth is a key point in investigating the characteristics of the urban industrial nexus in Tokyo and labor-intensive industrialization in Japan after WWII.

5. Will the declined industries revive?

The urban–industrial nexus has changed somewhat since industrialization has occurred in other Asian countries. In fact, the number of factories in Ota Special Ward decreased from 9,177 in 1983 to 3,481 in 2014. Whereas small factories have worked to survive through investing in R & D or by entering businesses with a better outlook such as health care, energy, and the environment, the conversion of industrial sites into residences has progressed especially around railway stations (Ota-ku 2011: 2; Ota-ku 2016: 2, 5–8). The population in Ota is expected to increase until 2035, from 717 thousand in 2015 to 756 thousand (National Institute of Population and Social Security Research 2018).

How does (or will) the industrial change influence Ota Special Ward? Fishery resources in Tokyo Bay have not be restored, although pollutant inflow to the ocean has decreased. Reclamation and dredging have drastically reduced the tidelands and seaweed beds which sustain marine biodiversity (Kokudo Kōtsūshō 2015: 24–59; Kimura 2016: 17–26). Reclamation in Ota Special Ward has decreased city problems caused by the coexistence of houses and factories, but it has damaged food resources of the sea.

Although the fruits of redevelopment remain forthcoming, some residents have begun trials to create an alternative nexus. For instance, Ota Special Ward opened Omori Seaside Park in 2007, an artificial tideland and artificial sandy beach.⁴ It also has a seaweed museum to preserve seaweed cultivation history and culture. Students of the neighboring primary school study and experience some works of seaweed cultivation and the administrator of the museum have continued experiments to revive seaweed cultivation (Sugino 2016).⁵ The Ota Special

³ On the other hand, Japan Communist Party progressed during the first half of the 1970s especially in Western Tokyo, also known as the Tama area, to which a lot of the new middle-class households had moved after WWII (Hara 2019: 5–6).

⁴ Website of Ota City (<u>https://www.city.ota.tokyo.jp/omori/machizukuri/hamabe/index.html</u>. Last accessed: May 22, 2019).

⁵ Website of Omori Nori Museum (<u>http://norinoyakata.web.fc2.com/</u>. Last accessed: May 22, 2019).

Ward residents have not completely forgotten the history and culture of the pre-urban-industrial nexus, and the memories of it are partially used for city planning. Cultivating these activities is expected to be an essential element for finding better paths of cities in the Great Acceleration.

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Table 1 Shares of Six Countries in the Resource

	Iron ore	Coking coal	Crude oil
Japan	33.9	35.7	18.3
USA	16.8	0.1	11.2
UK	7.9	0.0	12.1
W. Germany	17.7	5.5	11.5
France	2.8	10.9	11.1
Italy	4.5	9.9	13.0

Imports of OECD Countries, 1969

Source) Keizai Shingikai (1972: 50).



Fig. 1 Map of Ota and Kawasaki areas in 1902

Source) Keihin (1902: the inside of the cover).

Note) The projected lines of Keihin for Shinagawa and Yokohama were implemented during 1904–05, but the line between Daishi and Anamori was not implemented after all (Kobori 2018: 42, 54–55, 68–70, 173–174).