The vegetation on the floodplain in Kamikochi is characterized by many kinds of pioneer plants, such as *Choisenia arbutifolia*, *Salix toriata*, *Toisusus urbaniana*, *Betula armanii*, *Ulmus davidiana*, *Fraxinus mandshurica* and *Pterocarya rhoifolia*. *Choisenia arbutifolia* especially, is one of the most precious species distributed only in Kamikochi and its surroundings and the Tokachi region in Japan. For preservation of this type of vegetation and the precious species, it is necessary not to protect the plants but to destroy them by floods. If there were no floods to destroy such pioneer plant-dominant vegetation, it would change to other types of vegetation which may be climatic climax. It can be said that the construction of flood control structures, which decrease the frequency and magnitude of flood water and sediment inflow to the floodplain, destroys the nature systems in Kamikochi.

Our group has appealed to the Ministry of Construction and the local government to stop the construction of embankments, and proposes to change the methods for disaster prevention on the basis of the above results. But the proposals have not been accepted. One of the reasons is that there is little understanding about natural systems in Kamikochi. As mentioned above, there are many difficulties to combine the results of research with nature conservation activities. Researchers should make more effort to find ways to contribute to nature conservation activities.

**Comment: beyond “Specialist”**

NAKASHIMA Koji
Kanazawa University

I raise the question of “specialist” in regard to environmental issues. What is the role of “specialist”? Specialists are differentiated from lay people in that they are in a position to be able to use scientific knowledge exclusively. For instance, the existing system of environmental assessment presupposes that ordinary people do not have adequate scientific knowledge about their living environment, therefore they leave its assessment to environmental specialists’ evaluation. In other words, the initiative in assessing a living environment belongs to the environmental specialist. Within that system, people living in the environment to be assessed are often alienated from the processes of decision-making in environmental management. In such a way, the more geographers become engaged in environmental issues as specialists, ironically, the more they deprive people of environmental initiatives.

Therefore, the point in question is to how to break through this system of the intellectual division of labor, and to take back the environmental initiative to the people living in the environment involved. The role of the specialist in environmental issues is not only to participate in the environmental policy-making of the Establishment, but also to construct both socially and environmentally democratic politics.
to investigate it. Japanese territory in modern times had temporarily extended to the colonial regions of Korea, Taiwan, Northeast China and Sakhalin as well as the present territory of Honshu, Kyushu, Shikoku, Hokkaido and other small islands. We intended to explain geographically the characteristics of the formation process of region in "modern Japan" as the maximum time-spatial entity.

We argued the following themes and regions in eleven papers of the symposium.

First, there are the six titles on the modernization of rural or developing regions. The particularities of the formation of region under Japanese modernization are explored through description, interpretation, analysis and/or consideration of the following subjects; the diffusion process of improved agricultural techniques, symbolic landscape in frontier regions, the regional transformation of a local town since the discovery of hot spring as a sightseeing resource, the activity of a local financier in the sericulture region, the formation of the high-tension power transmission network and the development of the fishery processing industry on a Korean island under Japanese rule.

Next, the five speakers provided the following themes related to the modernization of urban or developing regions. Those were the regional development of oil field's mining rights, the birth of communication in a city region, the development of canal projects in city planning, the transformation of a local central place through merchant activities and biography formation and the transformation of a port city.

As the results of eleven papers followed by two comments and general discussion, we reached the following conclusion. Any modernized region had not 'naturally formed' but was 'structurally and socially produced.' In the Japanese modernization process, the three subjects of a nation, society and human agency had interacted with one another and co-contributed to formation of region. Eleven case studies illustrated the general facts in terms of various objects, times, regions and geographical scales.

Meiji Agricultural Methods and Regional Characteristics of its Acceptance in the Kanto District

NAKANISHI Ryotaro
Chiba University

Meiji agricultural method was the improved farming system of rice crops that extended throughout the nation in modern Japan. Many agricultural techniques were included in this method, but the most important one was plowing with draft animals using improved plow. This report aims to clarify how plowing with draft animals became popular in the Kanto district from the 1890s to the 1900s. Basically the diffusion of plowing with draft animals was closely related to the field conditions. However, in this report, I will pay attention to agricultural policy and the role of exemplary farmers and the agricultural association that promoted the diffusion of new agricultural techniques to farmers.

In the Kanto district in the 1900s, there were remarkable regional differences in the diffusion rate of plowing with draft animals. In Gunma, Tochigi, Saitama prefectures, the diffusion rate was high (70–90%), but in Ibaraki prefecture it was very low (5%). As the basic reasons causing such regional differences, it can be pointed out that there were many well-drained paddy fields which were suited to plowing with draft animals in Gunma, Tochigi and Saitama prefectures, but there were many ill-drained paddy fields which were not suited to plowing with draft animals in Ibaraki prefecture. However, it is important to note that the administrators of Gunma, Tochigi and Saitama prefectures made efforts to diffuse improved rice crop technology such as plowing with draft animals in the 1890s. On the other hand, Ibaraki prefecture did not implement such a policy at that time.

Although the diffusion rate of plowing with draft animals was low in Ibaraki prefecture in the 1900s, in Yuki County in the western part of Ibaraki prefecture, the diffusion rate was relatively high (about 30%). In Yuki County, exemplary farmers were extremely active in diffusing plowing with draft animals in the 1890s and the agricultural association of the county held a competitive exhibition at the end of the 1890s. It is clear that such activities of
exemplary farmers and the agricultural association promoted the diffusion of plowing with draft animals in Yuki County by the 1900s.

**Landscape and Images of Frontier in Modern Japan: A Case Study on Imperial Ranch in Shimousa**

TSUBAKI Machiko  
Tokyo Gakugei University

Industrial development policy of the Meiji government, which was primarily based on the introduction of Western knowledge and technology, encouraged large-scale farming and animal husbandry. Although many of the attempts in promoting the new system of agriculture failed due to inexperience, insufficient capital, and limited consumer market, some frontier regions came to be characterized by a Westernized landscape, which differed sharply from the traditional Japanese rural landscape. The present study attempted to reinterpret the frontier during the Meiji era as the place symbolizing modernity. By way of analyzing the frontier landscape formed during the Meiji era, the implication of modernization in Japan is considered, Japanese sense and values as projected in landscape are examined, and the contemporaries' perception of such landscape is interpreted.

Examined in this study is the Imperial Ranch of Shimousa established in the present-day city of Narita in Chiba Prefecture during the early Meiji era. Western-style livestock farming was attempted during the 1870s by introducing horses, cattle, and sheep in two ranches, which were merged into the Imperial Ranch of Shimousa in 1880. It was intended to supply a model for modern farm management by breeding animals, raising feed crops, and producing animal products. Covering an area of some 3,500 hectares, it was characterized by planned landscape with regular lots and planted trees of pine, Japanese cedar, and cherry around farmland.

Sightseeing guidebooks published after 1900 depicted the Imperial Ranch as a Western rural landscape as well as a celebrated locality of cherry blossoms and picnic resort. Grand landscape of green pasture with horses, cattle, and sheep combined with cherry trees was a typical way of describing the spot. It was exotic to Japanese who had seen the landscape of beauty only in the masterpieces of European painting. The modern landscape of the Imperial Ranch became further recognized as having aesthetic value as well as resources for tourism when the opening of a railroad facilitated people's access to the ranch area and recreational activities became popular among the public, though the management went into a slump. It represented the process in which the recognition of the new landscape emerged with modernization and became widely accepted among Japanese. This recognition born during the modern era appears to have been handed down to the late twentieth century when sightseeing ranches mushroomed throughout the country following the high economic growth period.

**Modernization of Hot Spring Facilities in Gunma Prefecture: Changes in the Use of Hot Springs and in Means of Transportation**

SEKIDO Akiko  
Gunma University

The purpose of this paper is to consider the path toward modernization taken by hot spring facilities in Gunma prefecture during the early decades of the twentieth century. In order to track the development, the author analyzed several editions of *Onsen Annai* (Guidebook to Hot Springs), a reference book compiled by the Imperial Japanese Government Railways. With the aim of increasing the number of rail passengers, the railroad ministry compiled a variety of guidebooks, beginning in the 1910s. The first edition of *Onsen Annai* was published in 1920; it was revised and reissued in 1927, 1931, and 1940. Guidebooks published by the railway ministry and other organizations were important influences in stimulating the public demand for hot spring related travel.

The research resulted in the following findings. In Gunma prefecture construction of the Joetsu Line, which connected the northern areas of the prefecture to Tokyo by rail, continued through the 1920s and was completed in 1931. As the means of transportation improved, the number of the hot spring facilities in the prefecture listed in *Onsen Annai* increased. Due to improved connections with
Tokyo, the 11 facilities listed for Gunma prefecture in 1920 increased to 31 in 1927, 38 in 1931, and 47 by 1940.

The classifications of the hot springs in the guidebook also underwent an evolution. Starting with the 1931 edition of Onsen Annai, descriptions included not only the traditional therapeutic benefits of hot springs, but also their recreational offerings; they were described as summer resorts, or ski resorts. The aim of visiting hot springs was shifting from medical purposes to the pursuit of leisure. Modernization of hot spring areas proceeded apace with the increase in recreational visitors. It was during the pre-war decades that hot spring facilities transformed from outdoor baths and cheap boarding houses into modern, luxury resorts with interior baths. In the 1940 edition of the guidebook, hot springs were divided, broadly, into two categories: one for medical therapy and one for general health maintenance. This shift from a labeling which emphasized recreation to one which emphasized health maintenance must be seen in the context of the wartime administration’s growing preoccupation with promoting health.

The Basis and Role of a Local Financier in Nagano Prefecture

KAWASAKI Toshio
Fukushima National College of Technology

The purpose of this report is to elucidate the relationship between local banks and cooperative association in Nagano prefecture from Meiji era to early Showa era. And secondly, it is to make clear the character of Tosin Region in the same period. The followings are the results. The local circulation of funds existed between local banks and cooperative associations. Local banks financed cooperative associations who managed sericulture. Financiers who managed local banks organized cooperative associations, and they reorganized any local banks into cooperative associations in early Showa era. In Tosin Region, local financiers were closely connected with sericulture and commercial agriculture, so they maintained local finance systems that were ordinary financial organizations, local banks and cooperative associations.

Formation of a High-tension Power Transmission Network, and Organization of a Supply Area

AMANO Kouji
Kokugakuin University

The diffusion process of the electric power company in Japan is divided into four phases. The first phase was the period from the foundation of the first company in the 1890s to 1909. The diffusion process made slow progress.

The next phase from 1910 to 1920 was the period of a rapid increase of the companies. Especially with the prosperity term of World War I, 792 small electric power companies, which had a small supply region corresponding to the area of one village or one county, were founded in the whole country. Those small companies did not have their own power plant and mainly supplied electricity to other electric power companies. Electricity for sale was provided by purchasing electric power generated in large quantities by large-scale Electric Power Development. As a result, many electric entrepreneurs appeared and founded many local electric power companies. Without capital accumulation, the electric power provision companies could be tied up with the high-tension power line networks.

In the third phase from 1922 to 1930, the depression after World War I caused many mergers of companies and the number of companies decreased sharply to 582 at the end of this period. The high-tension power line networks built in the second phase stimulated these mergers and the growth large electric power companies with the unified extensive supply area aimed at efficient employment of power generation equipment and power transmission equipment.

The Fishery Processing Industry in Cheju Island, Korea, under Japanese Rule

KAWAHARA Norifumi
Ritsumeikan University

The main purpose of this paper is the examination of the fishery processing industry in which Japanese people were engaged in Cheju Island, Korea under Japanese rule.

The fishery processing industry arose in the northwest and southwest sections of the island.
due to the geographical relation to the reclamation of fishing grounds by Japanese fishermen.

Among the factories of the fishery processing industry, the largest was the Takenaka Cannery in Ongpo-ri village located in the northwestern part of the island. In 1904, the Takenaka Corporation was established in Kyoto city, Japan, and later became a management factory of the munitions industry. Around 1928, a branch factory of this company, which made not only canned fish but also other canned goods such as canned beef and canned green peas, was established in Cheju Island. Some of the canned goods were sold in Japan via Osaka, but most of them were used as war supplies. In fact, this factory was built in the northwestern part of the island, the closest area to China, due to the consideration of transportation to the Chinese continent. On the other hand, Son-Sam-po village, which is located at the east end of the island, was at first the base of the Japanese diving industry. In 1906, Enkichi Ishihara from at Wagu village in Mie prefecture established the Korean Product Corporation at Son-Sam-po village; the main product was iodine. According to the data from existing land registers and the official gazettes of the Government-General of Korea, many iodine and button factories were operated on the seashore northwest of Son-Sam-po village. Most of the seaweed gathered by woman divers in Cheju Island was gathered in Son-Sam-po village; here iodine was produced from the seaweed ash and was transported to Japan. In 1923, a sea route between Osaka and Cheju was launched, which enhanced the function of Son-San-po village not only as a base of fishing and a place for the fishery processing industry but also as a place to connect Japan with Korea.

The iodine industry, the most important as the munitions industry, was placed at the east end of Cheju Island, which is the closest to Japan. This location is in good contrast to that of the canning industry mentioned above.

Oil Field Development in Niigata Prefecture through the Change of Mining Rights

SHINADA Mitsuharu
Nihon University

This study was conducted for the purpose of discussing the formation of mining capital in modern Japan along with the actual state of the formation and changes in mining areas mediated by mining rights that arose during the course of their regional development. More specifically, this study attempts to elucidate the distribution of oil mining areas and the historical transitions regarding their ownership based on examples of oil field development in Niigata prefecture during the Meiji and Taisho periods.

The geographical deployment of oil mining areas accompanying the development of oil fields in the late Meiji period took place around the city of Nagaoka, the site of the headquarters of a large congregation of oil companies, and basically was limited geographically to Niigata prefecture. Entering the Taisho period, however, the headquarters of these oil companies, which functioned as their management sectors, were relocated to Tokyo, and an increasing number of mining firms from outside Niigata prefecture began to implement oil field development in the prefecture. As a result, the authority behind the development of oil fields in Niigata prefecture clearly began to shift towards mining firms located in the capital of Tokyo and other locations outside Niigata prefecture.

Regeneration Cycle of “Commutation”

MIKI Masafumi
Nara University

The aim of this study is to clarify formation of “commutation” by focusing on transportation, labor and education in modern Japan. In this study, the every day habit of commuting between two regions for the day by transportation is called “commutation.” The result of this study can be summarized as follows.

1. Transport: After students popularized commutation in the decade from 1890 to 1900, it is considered from analyzing railway fares that office workers caused its further expansion.

2. Labor: As live-in work continued in a lot of industries in the Meiji era (1868–1912), few apprentices needed to commute between their homes and workshops. Moreover, factory hands were not able to commute between their homes and workshops because of long working hours. Their wages were generally very low,
making it difficult for those workers to bear the cost of such transportation. Commutation was only allowed for office workers in those days.

3. Education: Commutation by students was started by a lot of male middle school students after the Sino-Japanese War. As normal school students generally lived in dormitories and higher school students were obliged to live in dormitories, they did no need to commute. Many middle school students were children of office workers.

Most of the people who used commutation were male students of middle schools and office workers who had continued through higher schools. Students who were part of the “middle school boom” of the decade from 1900 to 1910 gained stable positions as office workers sometime between 1910 and 1930. For the most part, the generation that accounted for the growth in commutation by students was the same generation that accounted for the quantitative growth in commutation by workers. If this is true, then in addition to the fact that these individuals selected residences in suburban residential areas during the period from 1910 to 1930, their own commuting habit formed during their middle school days was an important experiential factor affecting their behavior as adults. Furthermore, the people who selected suburban residential areas during the period from 1910 to 1930 also had their children attend middle school, to which they also commuted, resulting in a “regeneration cycle” that further promoted the popularization of commuting behavior.

Development of Canal Projects in Modern City Planning

OKAJIMA Ken
Kokushikan University

The purpose of this research is to clarify the process of the canal plan in the modern city. In modern Japan, city canals were constructed as basic equipment for city development. City planning law was enforced in 1920, and the decision concerning canal projects dependent on that law was practiced in ten cities. It was Nagoya which implemented the earliest decision on a plan of the canal, mainly because of the pre-existing plan to move Nakagawa canal to the center.

The next city which planned to build canals by the city planning was Kawasaki. A seaside industrial area was formed out of Kawasaki in the beginning of the 20th century and water transportation on the Tama River was used. Kawasaki canal and Kawasaki river port were constructed in the 1920s to improve the convenience of water transportation. In 1935, they determined the plan of the canal network. This process is investigated by analysis of newspaper accounts from 1924 to 1935. Because the account of the Kawasaki river port was often carried on the newspaper, it seemed that the local inhabitants expected it. The canal plan to move this river port to the starting point was also frequently featured in the newspaper. There, along the canal, in addition to the construction of the warehouse and the factory, it was planned to develop a residential area. However, afterwards, few accounts of the canal appeared in the newspaper. According to the newspaper in 1934, by being placed in the whole Keihin canal plan the procedure to realization of the Kawasaki canal plan moved ahead.

Transformation of Local Central Place during Modernization Period: From Analysis of Activity of a Merchant Family in Komoro, Nagano Prefecture

KONO Keiichi
Tokiwa University

The objective of this study is to clarify the characteristics of transformation of local central place during the Japanese modernization period, and examine the transformation of a merchant family according to the records of activity of this group. The group, named “YANAGIDA-KAI,” was organized through Yanagida-Honten (the main family), Bunke (branch families) and Bekke (servant’s families), and established in 1940. Every year this group has a meeting and talks about the commercial situation and problems in the group. The change of substance of this meeting between 1940 and 1998 was as follows: 1. A major change in the meetings occurred around the 1970s. 2. At that time, the number of servant’s families was decreasing and the number of participants was decreasing, too. 3. The greater
part of the activity of the meetings became sightseeing and an occasion for celebration or sorrow. These changes were related to the transformation of Komoro as a commercial local-central place.

Biography Formation and the Transformation of the City in the 19–20th Century Japan: The Case of Nagasaki City

YAMANE Hiroshi
Toyama University

Japanese modernization since the 1860s had caused many geographical transformations: spatial reorganization, regional differentiation and integration of the localities in the nation-state. Those transformations had lead to the formation of regions. Prior studies of the formation of regions under modernization have neglected the participation of human agency in the process. This paper aims at confirming the interactive structuration process between human agency and structure in a locality, after Giddens. Invoking Pred (1990) who sketched the structuration process in a port city through the investigation of biography formation and knowledge acquisition of Boston merchants during the late mercantile period, this study investigated the formation of the region of Nagasaki, an eminent Japanese trading-port city. The structure of Nagasaki as a modern city can be found by identifying some basic and fixed characteristics of the city. Biographies of key persons in modern Nagasaki explain the trail of their lifetime paths and projects as results of human agencies' practices.

As the structural elements which had affected the formation of region in modern Nagasaki, the following five characteristics are elucidated: urban growth, important port for international and domestic trade, dominance of a large industrial company in urban economy, close connection with Shanghai and the high-ordered central place in Kyushu district.

The followings are the key persons in modern Nagasaki: Shozo Motoki as the official interpreter in Dejima and lately as a pioneer of Japanese printing industry, Gengoro Matsuda as the leading merchant-capitalist as well as a prominent banker and Kihei Fujiki as an excellent businessman. In pre-modern Nagasaki, Motoki and Matsuda had passed their childhood and then acquired the knowledge and skill necessary for their actions in the future. The experiences peculiar to the place had provided their later promotions in Nagasaki. The human agencies who gained high status came to sustain and intensify the structure of Nagasaki more actively. Fujiki, as a stranger, had accumulated many experiences specific to Nagasaki since his coming there and also importantly contributed to the structuration by introducing the innovative retail trade. We can find the intersections between human agency and structure in a modern city.

This paper concludes that the duality of structure and the duality of structure and agency appeared in temporal-spatial traits of the key persons’ lifetime in modern Nagasaki.

Local Administration Reforms and Geography

The Aims and Discussion of the Symposium
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Since the late 1980s, a series of local administration reform policies have been carried out. Especially, with approaching the expiry of Special Municipal Merger Support Act ("Shichouson gappei tokureihou") in March of 2005, municipalities are forced to make decisions not only for merger but also for their future administrative system. Influential factors for their decisions, such as territorial characteristics, service costs, tax bases and natures of surrounding local governments, vary geographically. Considering these factors, each local government takes different strategies and reforms. Therefore, geographers are expected to pay more attention to such local governmental issues and to contribute to the related policymaking.

This symposium is designed to discuss geographical characteristics of current local administration reforms in Japan and foreign coun-