

HISTORICAL GEOGRAPHICAL CONSIDERATIONS CONCERNING THE REGIONAL CITY OF SAPPORO

— City Planning in the Meiji Period —

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There are 142 cities in Japan which have a population of over 100 thousand, and there are eleven cities with a population over one million. In Hokkaido, the city of Sapporo is fifth in size nationally after Tokyo, Yokohama, Osaka, and Nagoya, while there are only six cities with a population of from 100 to 300 thousand on the island. The densely inhabited districts of Japan are the metropolitan area surrounding the capital, Tokyo, on the Pacific coast, the Keihanshin, Chukyo, and the Northern Kyushu areas. While on Honshu, cities in the Kinki district which developed in ancient times, and castle towns from the medieval period are relatively plentiful, the situation in Hokkaido, where planned development has a history of only one hundred years, is quite different. Here we would like to trace the historical markers of changing urban form and function in the city of Sapporo which comprises 27 percent of the total population on Hokkaido.

In 1869 the government set up the Hokkaido Development Agency in Sapporo as the base city in the planned development, and thus an administrative city was created. In 1874 the system of "farmer-soldiers" was begun to meet the needs of development and military protection in the north. Up to the time that this program was terminated in 1904, 24 soldier-farmer villages were established in Hokkaido, six of which were in Sapporo. In the beginning these soldier-farmer villages were concentrated but later they came to be spread about. In the Sapporo area they spread from the north to the west and south, cradling the city, as it were, from the west. In these villages from the Meiji (ending 1912) through the Taisho (ending 1926) periods, the main crops cultivated were vegetables, but after 1926 up to 1944 apples were the main crop in the southern area. As the urban area increased, apple orchards were pushed to the outskirts and there was a change in the cultivation pattern of the villages. After the end of the war in 1945, Sapporo developed into a modern city in the period of high economic growth from 1955 to 1974 when the population of the city doubled. This was occasioned by the holding of the Eleventh Winter Olympic Games held in 1972 for which the city constructed the north-south subway line, while the city center buildings expanded vertically and secondary city centers, transportation network, and public facilities developed dramatically. Afterwards the east-west subway line was constructed and Shin-Sapporo and the soldier-farmer villages developed into secondary centers.

Besides being the political center, Sapporo has become the financial center of Hokkaido, the focus moving from the previous center of Otaru. Sapporo is now a city with pivotal supervisory functions within the tertiary industries and integrated information network capabilities.

I. An outline of the characteristics of Japanese cities before the founding of Sapporo

In the beginning Japanese cities were modelled on the ancient capital of China, Choan, among them the Heian capital, (the present Kyoto), and others were laid out in a Japanized form of its rectangular shape with internal streets at right angles. From the middle ages in Japan to the more recent periods castle towns, port towns, towns around Shinto shrines or Buddhist temples, market towns, etc. came into being, but after the 15th century with the development of transportation, commerce and industry, the castle town became the chief form of town development and the characteristic layout and landscape of the castle town can be seen in them. Through the Edo Period the country was divided into many fiefs, each of them governed by a Daimyo or clan head responsible to the Shogun, Tokugawa; and in each castles were built not only for defence in local wars, but also to evince the power of the clan. With such castles at their center, a variety of castle towns such as Osaka and Edo developed. When the Meiji Era began, almost all of the prefectural capitals were found in these castle towns.

II. The Meiji Restoration and Sapporo

The revolution through which the new government of Meiji replaced the Tokugawa Shogunate is called the Meiji Restoration, (1867-1877). It was neither a grass roots revolution by the people, nor simply a rotation of people in power, but a total change in political and economic structure... from a feudal system to a modern one, from a policy of isolation to one of openness... and the social unrest and the accompanying changes in social position made the fight between the former powers and the new powers particularly fierce. The fight continued for ten years after the beginning of the Restoration. The central role in the political revolution was played by four clans, the Satsuma, Choshu, Tosa, and Hizen clans. Among these the Satsuma and Choshu clans predominated. This resulted in clan-faction power politics which left a large scar on the modernized government, a characteristic seen in almost no other country.

III. Town population in Hokkaido at the beginning of the Meiji Era

Among the old records for the population of the early Meiji Period there is the Koubuseihyo (cooperative military charts) of 1875 compiled by the Ministry of the Army for purposes of military induction which lists 80 cities of more than 10,000 population, among which 65, or 81 percent were castle towns. Other types of cities included the old capitals of Kyoto and Nara and the port cities of Nagasaki and Sakai. There was a large distribution of these towns in southwest Japan. In Hokkaido there were only two places, the port of Hakodate and Fukuyama,

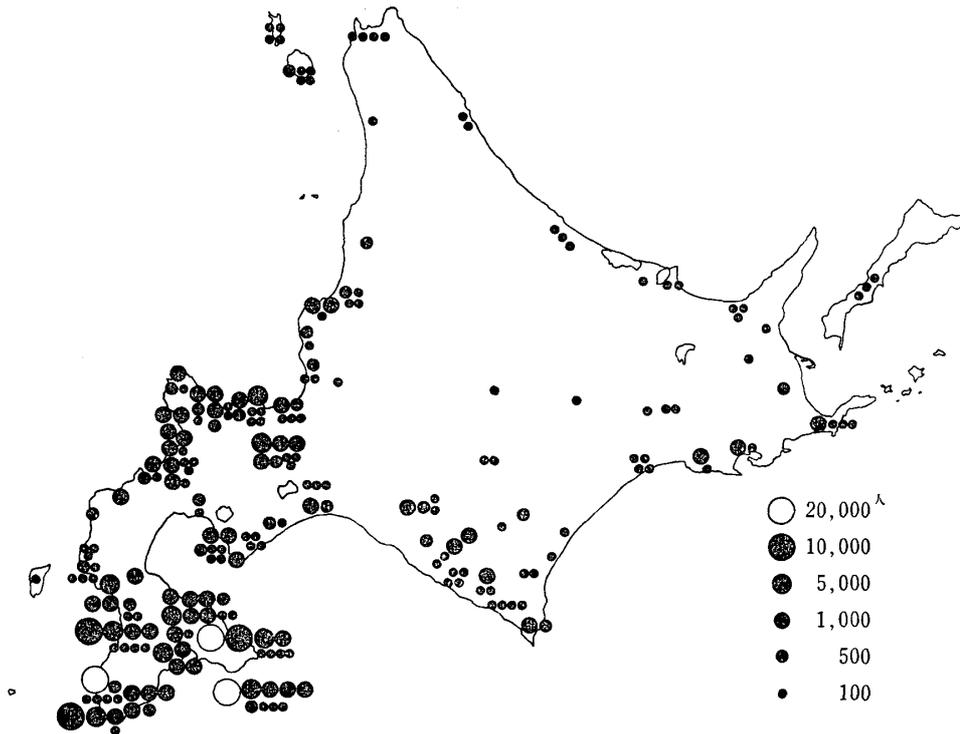


Fig. 1 Population distribution in Hokkaido in 1974.

the former headquarters for the Matsumae clan, the present town of Matsumae. As you can see in Figure 1, 59.7 percent of the total 173,000 population of Hokkaido was in Oshima, 16.4 percent in Shiribeshi, meaning that 76 percent of the population was concentrated in Southern Hokkaido (the southern peninsular area of Hokkaido), with only 1,785 people living in Sapporo, or, if the inhabitants of the surrounding areas are included, only 8,825 people. This reflects the fact that during the Edo Period the Japanese presence in Hokkaido was mostly restricted to the southern area and that the central part of Hokkaido was very thinly populated. Even in 1879 the population of Sapporo numbered only 2,910.

IV. The political background concerning the city planning of Sapporo and the foreign experts employed

In August, 1869, the name of "Ezo" was changed to "Hokkaido". In that year the battle between the armies of the Shogunate and the army of the new government came to an end in Hakodate on Hokkaido. Also, the decision having been made to open Hokkaido to development, the Development Commission was established and Nabeshima of the old Saga Clan was designated its chief. Nabeshima named a former subordinate, Yoshitami Shima, to the rank of judge and entrusted him with the job of building the main office of the Commission and the town, but Nabeshima was fired after only two months and replaced by Higashikuze, a former noble of the imperial court. Shima, considered too independent, was brought back to Tokyo. Because of this the construction of Sapporo was delayed for a

time, and the following year Michitoshi Iwamura of the Kochi Clan took over. But he, too, was relieved of the post by Undersecretary Kiyotaka Kuroda of the Satsuma Clan.

Thus, the construction of the politically central city at the core of the area to be newly settled underwent a dizzying personnel rotation. This came about because of the absolute political power of Satsuma-Choshu Clan faction mentioned before and was an intergal part of the process of getting rid of the influence of the other clans. It is of interest to see what special characteristics in city planning appeared while this parade of personnel changes went on. In the first plan by Shima, a moat was to be dug, front and back, around the 545-meter-square area of the main offices of the Development Commission and embankments raised. The urban area was to be divided by a wide avenue in the fashion of a military camp. With Iwamura the plan attained its present form. In 1871 the projected urban area was surveyed and was divided into 109-meter square blocks with streets 20 meters in width, each divided in the center with an 11-meter-wide inner alley. Each block was divided into twelve 9-meter by 49-meter lots which were then sold. The northern side was for official buildings while the southern side was the urban area, separated from each other by a large street 105 meters wide. A 36-meter-wide road was constructed around the Government Building and, depending on the site, 25- or 28-meter-wide streets were laid out. This checkerboard fashion of dividing up the city is said to be modelled after that of Kyoto, or is said to be the effect of the influence of the foreign experts hired from abroad for development. But Kyoto's blocks are 121 meters on a side and don't match Sapporo's at all.

As for the experts from abroad, Horace Capron, formerly the Commissioner of Agriculture for President Grant, came to Japan in 1872 and was in Hokkaido from July to October. With him came Thomas Anticel, a chemical engineer, A. G. Warfield, a mechanical and civil engineer, and S. Eldridge, all of whom were invited by Undersecretary Kuroda during his visit to America. The successor to Anticel, B. S. Lyman, published "A General Report on the Geology of Yezo, 1877, and "A Geological Sketch Map of the Island of Yezo, Japan", Japan's first written works of scientific research. L. S. Day of triangular surveying; N. W. Holt of the construction of the Development Commission office building; Edwin Dunn who had great influence on agriculture and livestock raising; W. S. Clark who helped establish the Sapporo School of Agriculture; J. U. Crawford who laid out the first railway; etc., some 45 Americans (of a total of 75 people), all specially picked by Capron, came to Hokkaido around this period and contributed greatly academically and in education to the future of Hokkaido. They did not, however, have any direct influence on the urban plan of Sapporo.

This can be seen by the fact that in America city planning as a matter of course takes the expansion of the city into account, but in Sapporo, not only were things only recognized after a need arose, added to the short terms in office of the people in charge, their ideas were never even considered in the policies of



Fig. 2 The configuration of city streets and soldier-farmer villages in the Meiji Period

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| <p>1. Urban area in 1882.
2. Kotoni soldier-farmer village, 1876.
3. Hassam soldier-farmer village, 1877.
4. Military drill area, afterwards regimental headquarters.
5. Yamahana soldier-farmer village, 1877.
6. Shinkotoni soldier-farmer village, 1888.</p> | <p>7. Shinoro soldier-farmer village, 1890.
A. Dotted line A indicates boundaries as redrawn in the 1909 edition.
B. Dotted line B indicates boundaries at first 50,000 edition, 1916. Black portions of 2 and 3 and the areas surrounded by the thick black line in 5, 6, and 7 show the</p> |
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the national government. Capron and Clark's real influence was not to flower until the people they taught put their ideas into effect.

V. Distortions in the city plan

In the first basic plan of Sapporo, the north-south axis neither coincides with true north nor the magnetic north, being $10^{\circ}15'$ westerly from true north and $1^{\circ}5'$ westerly from magnetic north. This came about because the cardinal point used by Shima in making the first city plan was the road that paralleled the Otomo moat, dug as a irrigation canal for creating a new village, in the neighborhood of its intersection with the old branch of the Iburi River by the Magistrate in Hakodate of the Tokugawa Shogunate, Kametaro Otomo. Also, the division of the city into square blocks 109 meters on a side was a practice in almost every city in Japan.

The streets of the city also bend at the point at which they touch on the Yamahana soldier-farmer village. Here the Sapporo city streets bend $5^{\circ}6'$ to the east making them $4^{\circ}45'$ westerly of true north. There are special reasons for this. As can be seen in Figure 2, the soldier-farmer villages were connected in fashion that sort of cradled the city. The soldier-farmer villages began in 1875 in Kotoni, and continued in Yamahana, Shin-Kotoni, and Shinoro, until 1899 when there were 24 soldier-farmer villages in Hokkaido and when the soldier-farmer system for Hokkaido was abolished. Seven of those 24 villages were in the vicinity of Sapporo. The soldier-farmer system was developed with the double aim of military defence and development of the land. To the east of the old city streets and the soldier-farmer villages is the back marsh of the Toyohira and Ishikari Rivers, an area of peat bogs. Coupling this with the mountains in back of the soldier-farmer villages, it would seem that Sapporo was well defended. The back marsh area was naturally the first area for agricultural and became the object of agricultural drainage projects.

Looking further into the soldier-farmer villages, however, it is found that the villages were under the authority of a military department commander, and in that period the commanders were in the hands of the Satsuma-Choshu faction and in the competition with the Development Commission under the people from Saga, they purposely built the Yamahana soldier-farmer village in a different direction from the Sapporo streets, a result of the double authority structure in the development of Hokkaido. Eventually the military department commanders were

area of the soldier-farmer villages.
 C. The Kamokamo River.
 D. The former Iburi River.
 E. The former Fushiko River.
 F. Shinkawa (New River) -name changed to Sosei River in 1875.

G. The former river bed of the Kotoni River.
 H. The former river bed of the Hassam River.
 P-Q-R The Otomo Moat, 1866.
 Under P to the Kamokamo River (C) is the Yoshida Moat, 1870.
 Q-F show the area of the Terao Moat, 1870.

abolished to become the Department of the Army and the Development Commission done away with to become the Hokkaido Prefectural Government, and both of these came under the influence of one man, Kuroda of the Satsuma faction, and thus the competition between the two disappeared. And so the chaos in the central government is reflected in the city streets of a newly settled outlying town.

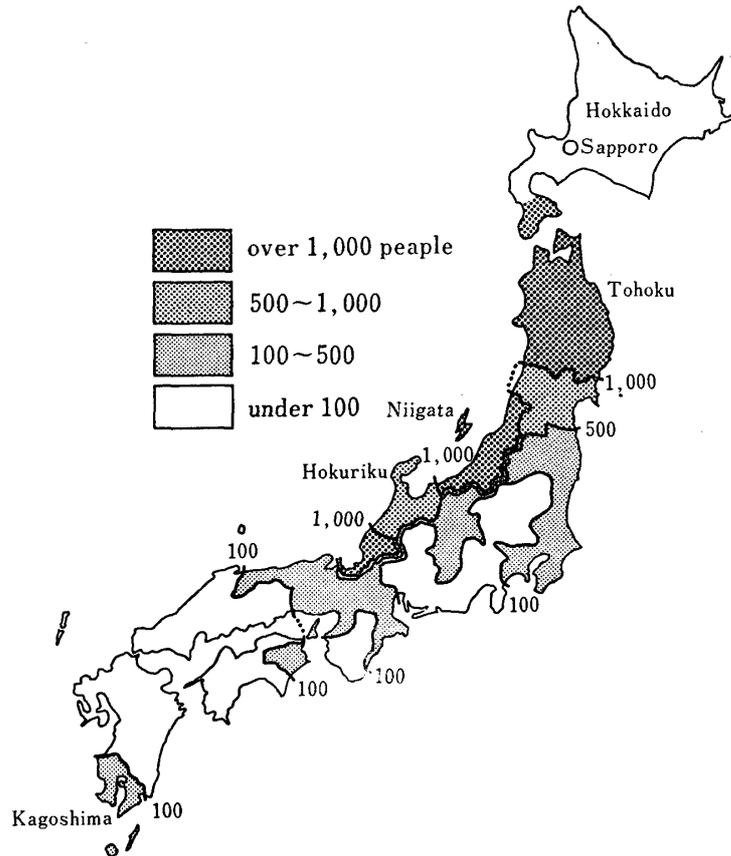


Fig. 3 Origins of Sapporo population, 1888.

In the beginning of the Meiji Period the laying out of towns in Hokkaido began with making the roads, and with these as a basis, the residential areas of the settlers were divided up, thus there was a lack of unified direction. The reflection of those days can be seen in the city plan of the newly settled town, much in the same way that history can be seen in the layout of a castle town, and urban redevelopment planning today is no different.

VI. The population structure of Sapporo

Looking at the population that came to Hokkaido in 1888, (Fig. 3) those from Niigata Prefecture made up the greatest portion, while 58.4 percent of the total influx of 16,372 were from the Tohoku and Hokuriku areas of Honshu. Exceptions to this trend were the influx from the capital, Tokyo, and the extreme western end of Japan, Kagoshima. This early influx from Tohoku (northern Honshu on the Pacific Ocean) and Hokuriku (northern Honshu on the Japan Sea) continued and influenced greatly the direction of the customs in dress, food and housing, and the local dialect of Hokkaido, but, while being influenced by Tohoku and Hokuriku, an original cultural climate was created differing from either.

The tendencies differ with different periods, but in 1909 there was an influx of 22,509 people which, when broken down by occupation shows 36 percent involved in mining, 33 percent in commerce and transportation, 14 percent in civil service and self employed, and 4.5 percent in agriculture. Two differing major influences in language were that from the people engaged in the fishing industry and from

settlers engaged in farming, a difference that is still in evidence in the older members of society.

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地方都市札幌の歴史地理学的考察

—— 明治期の都市計画 ——

内 田 實

日本における人口集中地区で10万人以上の都市は142あり、100万人以上の都市は11である。北海道は東京、横浜、大阪、名古屋に次ぐ第5位の札幌と、10～30万人の6都市があるにすぎない。

本州の都市の成立は近畿の古代都市を除けば、中世の城下町、港町に起源をもつ都市が多いのに対し、北海道の都市は、その発展過程において事情が著しく異なる。ここでは北海道総人口の27%を占める札幌市の成立過程において、計画的植民都市として建設された札幌が、現在のプランにならざるを得なかった社会的背景と、現市域に編入されている旧町村の開拓環境について考察した。

明治初期の北海道の人口を洪武政表明治8年版によってみると、人口1万人以上の都市80（全国）のうち北海道は函館と福山（現在の松前）2カ所のみで、総人口17万人のうち渡島・桧山・後志に76%が集中し、札幌は1,785人、同12年でも2,910人に止まる。札幌の都市プランからみると、明治2年北海道と改め、10月鍋島直正に代った東久世通禧が開拓使長官となって箱館へ到着、11月判官島義勇は札幌の地へきて石狩指図によって本府敷地を定めた。その場所は旧札幌図の用水沿い銭函道の交点付近で、この用水は大友亀太郎（幕臣箱館奉行付）が、石狩開拓のため慶応2年伏籠川流域に元村を建設したときの用水で、御手作場が康午1の村～3の村の原形となる。開拓使の本庁作りは島の独走で中断をよぎなくし、同4年判官岩村により市街地割

が継続された。大友堀の関門の南に市街地、北に官庁、その間に60間（実際は58間）の防火帯（現在の大通公園）を設け、本庁周辺の道路は20間、その他15間半、13間半、市街は方60間に11間道路をつけた。本庁の西側は公園と官園からなり琴似村へ接続する。これを京都などの方格都市を範としたものとの説があるが、1町60間四方の区画は、殆んど日本の都市を支配する地割で、京都の場合40丈となるから一致せず、道幅においても相違する。また新しいプランにも拘らず磁北から1度5分、真北から10度15分西寄する。この原因は大友堀とそれに併走する東側道路を基線としたことにあった。

屯田兵村は明治8年琴似に始まり、8年山鼻、癸寒、11年江別、18年野幌、20年新琴似、22年篠路と、32年条令廃止まで24兵村が全道に設けられるが、その7兵村が札幌を囲繞する。山鼻兵村の道路は旧札幌区に接続するにも拘らず、札幌市街より5度6分傾けて4度45分西寄する。その背景には兵部省（薩摩・長州）と開拓使（佐賀）との軋轢が介在し、中央政庁の内部関係と同様な政争の愚が札幌の都市プランに反映したからに外ならない。現在の都市の道路・区画のあり方が、その時代という以上にその時点でのプランに反映していた植民地ならではの遺産であった。また御雇外国人による近代的な都市プランへの影響などといわれるが、その痕跡もないこと、及び札幌に移住した人々の出身地の特長等についても若干付言した。