

Symphonic Concert Life and Concert Venues in Tokyo 1868–1945

Clemens Büttner

λογος

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Contents

Editorial notes	7
Acronyms	9
Acknowledgements	11
1. Introduction	17
1.1. Socio-cultural history of Tokyo	17
1.2. The introduction of Western Music	24
1.3. Concert venues in Tokyo, an unexplored field	29
1.4. Goals of this study and delimitation	36
2. Concert Life in Tokyo	39
2.1. The concert life database	39
2.1.1. Motivation	39
2.1.2. Requirements	40
2.1.3. Sources	40
2.1.4. Implementation	44
2.2. Chronological history	44
2.2.1. Early orchestral endeavours, 1868–1904	44
2.2.2. Orchestras appear in the public, 1904–1914	50
2.2.3. Joining efforts, 1914–1923	56
2.2.4. Breakthrough years, 1923–1937	63
2.2.5. Symphony orchestras in wartime, 1937–1945	67
3. Concert Venues in Tokyo	75
3.1. Concert venues before Kantō earthquake	75
3.1.1. The Music Research Institute	76
3.1.2. The Rokumeikan	78
3.1.3. The Hall of the Academy of Music	80
3.1.4. The first Imperial Hotel	86
3.1.5. The Kanda Y.M.C.A	89
3.1.6. The Hibiya Park Bandstand	92
3.1.7. The Imperial Theatre	94
3.1.8. The Nanki Auditorium	99
3.1.9. The Hibiya Park Bandstand	103

3.1.10.	The second Imperial Hotel	106
3.2.	Concert venues after Kantō Earthquake	110
3.2.1.	The Kabuki-za	111
3.2.2.	The Nihon Seinekan	115
3.2.3.	The Asahi Auditorium	118
3.2.4.	The Hibiya Public Hall	121
3.2.5.	The Tokyo Gekijō	127
3.2.6.	The Nippon Gekijō	130
3.2.7.	The Gunjin Kaikan	134
3.2.8.	The Tokyo Takarazuka Theatre	138
3.2.9.	The Yūraku-za	142
3.2.10.	The Kyōritsu Auditorium	145
4.	Room acoustical conditions	147
4.1.	Acoustical evaluation	147
4.1.1.	Computer modelling in room acoustics	148
4.1.2.	The hybrid simulation model	149
4.1.3.	Modelling the geometry	150
4.1.4.	Modelling the audience area	151
4.1.5.	Absorption properties	151
4.1.6.	Modelling the orchestra	153
4.1.7.	Scattering coefficients	154
4.1.8.	Residual absorption	154
4.2.	Room models	155
4.2.1.	The Hall of the Academy of Music	156
4.2.2.	The Kanda Y.M.C.A	159
4.2.3.	The Imperial Theatre	162
4.2.4.	The Nanki Auditorium	165
4.2.5.	The Kabuki-za	168
4.2.6.	The Nihon Seinenkan	171
4.2.7.	The Hibiya Public Hall	174
4.2.8.	The Nippon Gekijō	177
4.2.9.	The Gunjin Kaikan	180
4.3.	Discussion of the room acoustic parameters	183
4.4.	Conclusions	187

5. Three eras of performance venues	189
5.1. Early orchestral concerts	189
5.2. The success-story of the public halls	191
5.3. Adaptation of the worldwide standard	198
Appendices	201
Bibliography	227

Editorial notes

Romanization The modified Hepburn system is used for romanization, and macrons are used to indicate extended vowels, except for anglicized words such as shogun (instead of shōgun) and city names such as Tokyo and Kyoto (instead of Tōkyō and Kyōto).

Chinese characters Chinese characters, or Kanji, that are used in the Japanese writing system, will be provided in the margin column for the most important Japanese names and terms.

Names Japanese names are given, as customary in Japan, with the surname followed by the given name, while Western names are stated using the opposite order customary in the West.

Bibliographical references Bibliographical references are specified using the author-date style based on the 16th edition of the Chicago Manual of Style. For historic newspaper and journal articles which lack a title and author, the citation begins with the publication medium.

Measures of length Measures of length, area or volume, that in the literature cited are specified using Japanese units of measurement, are converted to the metric system. For units of length, 1 *shaku* (尺) equals 0.303 m, for units of area, one *tsubo* (坪) equals 3.306 m².

English British English will be used throughout this work. This means for instance that for all the buildings described, the floor on the basement level is called ground floor, and the one above first floor.

Venue names Names of concert venues will be referred to by the English names, that have been most frequently used in contemporary media, such as the Japan Times. For example, the Hibiya Kōkaidō was most frequently called Hibiya Public Hall.

Image sources The sources of the images displayed in the text are specified in the list of figures at the end of the text.

Acronyms

BEM	boundary element method	NHK	日本放送協会 <i>Nippon Hōsō Kyōkai</i> , Japan Broadcasting Corporation
Bn	Bassoon	OAG	Deutsche Gesellschaft für Natur- und Völkerkunde Ostasiens
BRIR	binaural room impulse response	Ob	Oboe
CAD	computer-aided design	OCR	optical character recognition
Cb	Contrabass, double bass	Or	Organ
Cl	Clarinet	Prc	Percussion
CMS	Content management system	Pf	Piano
DFG	Deutsche Forschungsgemeinschaft	RAVEN	Room Acoustics for Virtual Environments
E.E.	Evening edition, 夕刊, <i>yūkan</i>	RIR	room impulse response
FEM	finite element method	RPF	raven project file
Fl	Flute	SCAP	supreme commander for the allied powers
GHQ	general headquarters	SLUB	Sächsische Landesbibliothek, Staats- und Universitätsbibliothek Dresden
GND	Gemeinsame Normdatei	Tba	Tuba
GUI	graphical user interface	Tbn	Trombone
Hp	Harp	Tmp	Timpani
HRTF	head related transfer function	Tp	Trumpet
Hn	Horn	Va	Viola
JACAR	Japan Center for Asian Historical Records	VAE	virtual acoustic environment
JND	just noticeable difference	Vc	Violoncello, cello
MGG	Die Musik in Geschichte und Gegenwart	VIAF	virtual international authority file
MOAG	Mitteilungen der Deutschen Gesellschaft für Natur- und Völkerkunde	Vn	Violin
M.E.	morning edition, 朝刊, <i>chōkan</i>		

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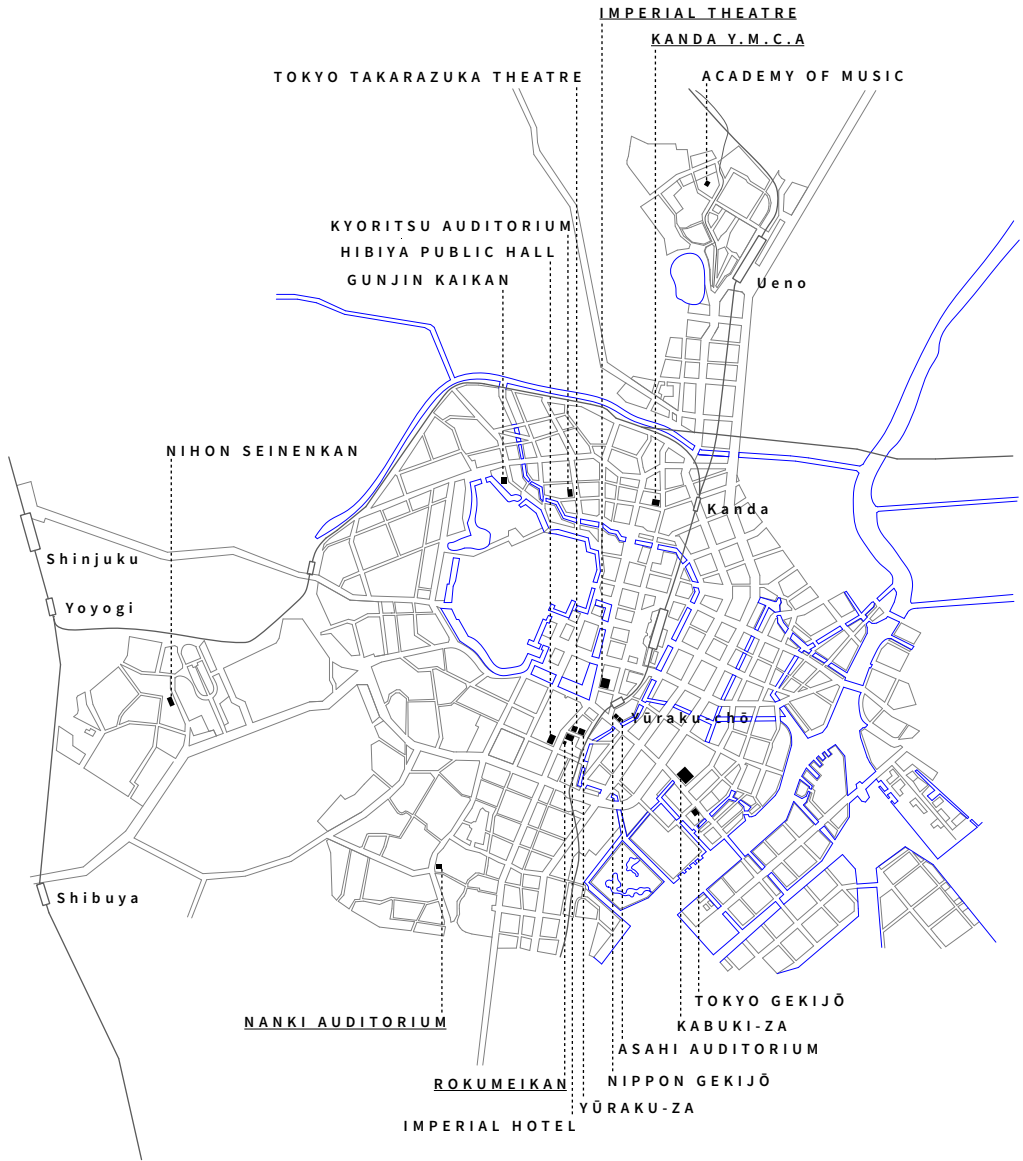
¹ 木造劇場研究会
Mokuzō gekijō
kenkyūkai

Masahiro at the Tokyo Bunka Kaikan and all the insights concerning the concerts at the Hibiya bandstand, which he shared with me. Morishita Yu, I owe many thanks for hosting me at the Tokyo University, as well as for many very enlightening discussions on the subject. Many thanks also to Shindo Hironobu, for sharing his contacts to the Nihon Seinenkan and the Hibiya Public Hall and for his opinions as a historian. Tsukada Shigeru, volutarily offered this support in searching for documents and visiting libraries when a personal visit to Japan was not possible, for which I am very grateful. I also thank Tomuyuki Serino for the many emails responding to questions concerning the history of the Nanki Auditorium and the story of William Merrel Vories, and I want to thank the Vories Architectural Company for supplying me with the drawings of the Nanki Auditorium and the Vories Memorial Hall² for the permission to show the photos of the Nanki Auditorium. I thank all the staff at the Nihon Seinenkan, especially Sakano Naoko, who spent considerable time with me at the archives of the Nihon Seinenkan searching for plans of the original building. I would also like to thank Ms. Tsuchihashi from the Kyoritsu Women's University, who provided me with the two photos of the Kyoritsu Auditorium.

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Map of Tokyo

The drawing of the map of Tokyo is intended to illustrate the locations of all performance venues examined. Only a selection of the map is shown to achieve a sufficient level of detail to illustrate the locations of the venues in question. The map was created on the basis of a source from the year 1941, (Tourist Industry Division, Ministry of Transportation 1941), provided to the author by Steve Sundberg, (OldTokyo.com). A number of the rooms displayed was destroyed in the 1923 earthquake and no longer existed at the time the source for this drawing was created. These rooms are nevertheless shown at the location where they would have been situated and indicated by underlining their names. For the three venues in Hibiya Park (the Hibiya Public Hall, the first bandstand, and the second bandstand), only the Hibiya Public Hall is shown, a detailed drawing of the Hibiya Park is given in Figure 3.24.

Chapter 1.

Introduction

This chapter presents a brief socio-cultural history of Tokyo and outlines the political events of the period under investigation in order to provide the reader with an idea of what kind of city Tokyo was at the end of the 19th and the beginning of the 20th century. It also intends to outline how Western music was able to achieve the considerable status it had by the middle of the 20th century in a rather brief period of time.

For a Japanese reader or a scholar who has already studied the cultural and musical history of this time period in depth, this chapter will provide little new information. However, it seems necessary in order to provide a more general audience and readers less familiar with this time period and the music history of Tokyo in the 19th century with the necessary socio-cultural background information.

1.1. Socio-cultural history of Tokyo

In 2018, Tokyo celebrated its 150th birthday, referring to the year in which the name of the city was changed from Edo to Tokyo. The history of the city is of course older than that. Nowadays it is widely accepted that the Kantō Plain, the area in which Tokyo is located, was inhabited long before, and evidence of prehistoric settlements dating back to the Jōmon period (from approximately 10,000 BC to 300 BC), were discovered by the American zoologist Edward Morse in 1877 in the village of Omori (Morse 1917). A castle was first built in 1457 by Ōta Dōkan³ (1432–1486), who after settling in the Kantō Plain slowly transformed Edo into a centre of trade. The town gained in size considerably when people of all backgrounds came to Edo seeking refuge during the Ōnin war⁴ from 1467 to 1477, which destroyed large parts of Kyoto, the capital at the time (Mansfield 2009, 6).

In 1603, Tokugawa Ieyasu⁵ (1543–1616), after winning a decisive battle, became the military ruler of the country⁶ and the city of Edo became the seat of government. The Tokugawa leaders were able to maintain their power until the second half of the nineteenth century and this period is therefore known as Edo period or Tokugawa period. A decisive factor for the long Tokugawa rule was a surveillance system, which can be translated to “alter-

³ 太田道灌

⁴ 応仁の乱
Ōnin no ran

⁵ 徳川家康

⁶ 征夷大將軍
Seii taishōgun, abbreviated 將軍 *shōgun*

⁷ 参勤交代
sankin kōtai

⁸ 大名
daimyō

nate attendance,”⁷ introduced in 1635. Each major feudal lord⁸ had to live alternately one year in the capital and one year in his domain. In his absence, family members had to remain in Edo (H. Watanabe 2001, 25). It is believed that the permanent presence of this large number of *daimyō* from all over the country had a beneficial effect on the increasing cultural life of the city (Itoda 2008, 25).

⁹ 能

The Tokugawa shoguns initiated several urban development projects. East of the large Edo Castle, which took almost 40 years to complete, between the castle and the bay of the Sumida river, a civic quarter was built, where craftsmen and merchants settled to offer their services to the aristocracy (Frampton et al. 1997, 67). Performances of instrumental music in front of a larger audience did not exist during this period, but music was part of the dramatic arts, which enjoyed great popularity. While the Nō⁹ drama supported by the Tokugawa government was cultivated by the samurai class residing in the areas west of the Imperial palace, the townsmen in the bourgeois quarters east of the castle evolved the “gaudy, graphic and emotionally unrestrained” Kabuki¹⁰ theatre (Shively 2002, 33), as well as the puppet theatre¹¹. The frivolous activities were however, observed with suspicion by the government and a number of measures were taken to control the theatres. Initially, only three families were granted concessions to operate a grand theatre, which came to be known as the three big theatres¹², the Nakamura-za, the Morita-za and the Ichimura-za. Around 1689, all theatre workers were required by law to relocate to a designated theatre district. Eventually, the three big theatres were forced to move to a enclosed district called Saruwaka-chō¹³, which was located in the remote Asakusa area (Itoda 2008, 27–28). While these theatres do not exist anymore today, the closest experience to visiting one of these theatres today is a visit to the Kanamaru-za¹⁴ in Kotohira-machi, Kagawa prefecture, on the island of Shikoku. The theatre was built in 1835, at the peak time of the popularity of Kabuki and “from the measurements of the stage to the dimensions of the auditorium, it is virtually identical in size to the three licensed theaters of Edo” (Kawatake 2003, 33). These traditional playhouses¹⁵ were comparably light weight wooden structures that could be dismantled and reassembled quickly, probably also due to the fact that they were requested to relocate frequently.

¹⁰ 歌舞伎

¹¹ 文楽 *Bunraku*, or
人形浄瑠璃
Ningyō jōruri

¹² 江戸三座
Edo sanza

¹³ 猿若町

¹⁴ 金丸座

¹⁵ 芝居小屋
Shibaigoya

While in the time described above in Edo foreign influences did practically not exist, a first contact with European music had already been occurred mostly in the far west of the country. The first Portuguese traders had landed in Japan as early as in the 1540s, and Portuguese Jesuits were the first European missionaries to come to Japan. The feudal lords on the island of Kyūshū had engaged in trade with the Portuguese mostly for the sake of goods and firearms which helped them to improve their political positions

(Harich-Schneider 1973, 445–486). This gave the Portuguese missionaries the opportunity to settle in this part of the country. These missionaries, established as many as 200 churches in this time with approximately 150,000 Japanese converting to Christianity (Danford et al. 2014, 2). As a result, Portuguese missionaries brought the Japanese into contact with the music of the European Renaissance, especially with liturgical mass chants, and trained Japanese Christians as singers in church choirs.

It was under Tokugawa Iemitsu (1623–51), who feared that the increasing influence of Christian missionaries could be a threat to the power of the Tokugawa, that Christianity was prohibited in 1639, and Christianity almost completely disappeared again, with the exception of a number of “hidden Christians”¹⁶, and the country was almost completely closed off from foreign trade. The realization that Christianity and its churches were not able to assert themselves in pre-modern times is also interesting from the perspective of this study, because the existence of several hundred churches from the middle of the 16th century would certainly have changed listening habits sustainably. Boxer wrote: “A study of the Kirishitan culture of the Keichō period (1596–1615) inclines me to the belief that but for the arbitrary action of the Tokugawa, Japan might have achieved a considerable degree of Westernisation and started on a policy of overseas expansion about two and a half centuries before she did” (Boxer 1951, 209).

In 1853, Commodore Matthew Perry (1794–1858) arrived in Japan, presented a letter by the American president Millard Fillmore, and announced that he would return the following year to receive the answer. The demands made by the United States, described in the letter, were “friendship, commerce, a supply of coal, and provisions and protection for our shipwrecked people” (Perry et al. 1968, 221). In the following year, the Japanese government agreed to a treaty between Japan and the United States, allowing trade at the ports of Shimoda and Hakodate. In 1858, another treaty was signed including the opening of additional ports and a system of extraterritoriality among other points, which was followed by the conclusion of further contracts with Russia, England, Holland, France and Prussia in the following years, which constituted an unfavourable foundation for trade with the Western powers (Schwentker 1994). These “unequal treaties” are important to consider with regard to the importation of Western classical music, since many of the efforts made in the early Meiji period to establish Western music in Japan were undertaken with the purpose of ending these unequal treaties.

This external pressure met with an already tense domestic political situation and a process of political and social transition, that had already begun in the early nineteenth century. It started a period of civil war, which lasted from 1853 to 1867, ended with the abolition of the rule of the shogunate, and

16 隠れキリシタン
Kakure kirishitan

led to the restoration of the Emperor, who subsequently moved from Kyoto to Tokyo in 1869. The name of Edo was changed to Tokyo, announced in an imperial edict on July 17, 1868.¹⁷ The events surrounding this transition are summarized under the term Meiji Restoration¹⁸, initiating the Meiji period. The emperor proclaimed the so-called Charter Oath¹⁹, which included the announcement that knowledge helpful to the project of increasing the strength of the empire should be pursued in all countries of the world (Henshall 2014, 503). The theoretical framework for this endeavour was formulated by the “iconic intellectual figure of Meiji Japan”, Fukuzawa Yūkichi (1835–1901)²⁰ (Howell 2010, 398). In the book “an outline of theories of civilization”²¹, published in 1875, he described Japan as “half-civilized” and in urgent need to catch up with the West. If Japan would not catch up with Western achievements, it would face losing its independence, and therefore he promoted “Making Western Civilization our Goal” (Craig 2009, 103). This goal was implemented by sending Japanese statesmen and civil servants to Europe and the United States for the purpose of study, as well as by inviting foreign government advisors²² to Japan (Schwentker 1994, 101).

The declaration of Tokyo as the capital and the initiated modernisation processes had far-reaching consequences for the urban infrastructure of Tokyo. This change was most drastically reflected in the “low city”²³ districts, the working-class quarters east of the castle. The castle itself became an imperial palace. In 1872, a large part of these quarters, Ginza and the adjacent Tsukiji districts were destroyed by fires. The British engineer Thomas James Waters (1842–1898) was hired to supervise the reconstruction plans for the Ginza area. A new road layout was designed based on European models of city planning, and sidewalks were included in the plan for the first time (Jackson 2010, 479–480). New buildings had to be made of brick or stone, which gave the area the name “Ginza brick town”.²⁴ Also in 1872, the first steam train line between Shimbashi and Yokohama was opened. While in 1876, the population of Tokyo was approximately 1,000,000 people, by the end of Meiji period in 1912, the population had grown to approx. 2,800,000 people.²⁵

The central point of the efforts of the early Meiji government, spearheaded by the first Foreign Minister Kaoru Inoue²⁶ (1836–1915), was the revision of the above-mentioned treaties. To this end, it was proposed that an area near the Imperial palace would be transformed into a government district modelled on that of European cities. In order to achieve this goal, foreign architects were invited. Certainly the one that had the most lasting impact was Josiah Conder (1852–1920). Conder was born in London into an artistic family, had studied architecture and had gained practical experience working in the office of William Burges (1827–1881). In 1877, he was

¹⁷ JACAR, Ref. A15070000500
江戸ヲ東京ト称ス

¹⁸ 明治維新
Meiji ishin

¹⁹ 五箇条の御誓文
Gokajō no Goseimon

²⁰ 福澤諭吉

²¹ 文明論之概略
Bunmeiron no gairyaku

²² お雇い外国人
Oyatoi gaikokujin

²³ 下町
shitamachi

²⁴ 銀座煉瓦街
Ginza rengagai

²⁵ Sources: Statistics Division, Bureau of General Affairs, 東京都総務局統計部, accessed April 20, 2022, www.toukei.metro.tokyo.jp/jugoki/2011/ju11qc0900.xls

²⁶ 井上馨

invited to Japan on a five year contract as teacher at the Imperial College of Engineering²⁷ (Tseng 2008, 53–58). Many of his students, such as Kingo Tatsuno (1854–1919) or Katayama Tōkuma (1854–1917) would become the first Japanese architects to plan larger scale building projects in the second half of the Meiji period. Apart from teaching, Conder designed a number of buildings, most notably the Rokumeikan (see Section 3.1.2), the Mitsubishi building and the Kanda Y.M.C.A. (see Section 3.1.5)

²⁷ 工部大学校
Kōbu daigakkō

The Rokumeikan²⁸, a two-storey structure of white-painted brick in a style which Conder referred to as “Renaissance Villa” (Finn 2006, 228), was opened in 1883, and became a symbol of the modernisation process, therefore the early years of Meiji are also referred to as the Rokumeikan era. The plan to construct this building was devised by Inoue, working towards the goal of revising the unequal treaties. Judging from the accounts of the German architect Wilhelm Böckmann (1832–1902), who came to Tokyo as a government advisor in 1886, and was accommodated at the Rokumeikan during his stay, the building seems to have served its purpose, as it “far exceeded [...] [his] expectations” (Böckmann 1886, 54). Another famous example of early Meiji architecture, is the “Mitsubishi Building No.1”²⁹, completed after Conder’s plans in 1894, and part of a series of red brick buildings defining the new district.

²⁸ 鹿鳴館

²⁹ 三菱一号館
Mitsubishi ichigōkan

During the planning and construction of the government quarter, Böckmann and his partner were invited to submit proposals. In the end, the plans by Ende & Böckmann were not fully realised, partly because they were exceeding the budget and partly because they were trying to include elements of (what they considered) Japanese architecture, a style similar to what would later become popular by the name of “Imperial Crown Style” but at this time was not sought after by Japanese officials (see page 136). Two projects were eventually realized — the Ministry of Justice building was completed in 1895 and the Supreme Court of Judicature was completed in 1875 (Pagel 2019). In 1888, the first “Tōkyō City Improvement Ordinance”³⁰ was declared, which continued until 1918, with the main goal to improve the infrastructure of Tokyo (Kawahara 1996, 48–49).

³⁰ 東京市区改正条例
Tōkyō shiku kaisei jōrei, see *Yomiuri Shinbun*, August 18, 1888, 3, M.E.

This modernisation process also affected the performance spaces in Tokyo. The rule to grant theatre concessions only to the three most important Kabuki families was abolished in 1873 and licences could now be applied for by anyone (Itoda 2008, 63). In 1878 the Shintomi-za theatre opened in the Shintomi quarter near Ginza.

The rapid transformation of the city was accelerated by a series of armed conflicts, which in turn spurred the industrialisation. In July 1894, Japan declared war on China. The war lasted until April 1895 and Japan emerged victorious, which was seen as proof of Japan’s successful modernisation on

Western models. This first Sino-Japanese war was followed in 1895 by the conquest of Taiwan. At the same time, the unequal treaties were abolished, fulfilling one of the main goals of the early modernisation efforts in the Meiji period. An alliance with Great Britain followed in 1902 and a war with Russia in 1904–1905, from which Japan also emerged victorious. While until then the textile industry still represented the largest part of Japanese exports, heavy industry became increasingly important. At the time of the death of Emperor Meiji in 1912, Japan had developed into an imperial power and Tokyo had grown into a modern metropolis with over 2 million inhabitants.

³¹ 大正時代
Taishō jidai

³² 嘉仁

The Taishō period³¹ encompassed the short rule of Emperor Yoshihito³² (1879–1926), from July 30, 1912 to December 25, 1926. Yoshihito succeeded his father to the throne when he was 33 years old. The Taishō period was multi-faceted, with the introduction of jazz on the one hand, and social unrest, increasing political pluralism and the start of Japanese colonialism on the other. The First World War had a stimulating effect on the Japanese economy. Japan used the heavy involvement of European nations in the war to push into markets previously dominated by these nations. It was also able to establish itself as an arms exporter for the Allied Nations. This resulted in a phase of prosperity that lasted until the 1920s and enabled new developments in Tokyo (Allen 1981, 100–101). In 1920 Japan joined the League of Nations.

³³ 東京大正博覧会
Tōkyō taishō hakurankai

The Tokyo Taisho Exhibition³³, which took place in Ueno Park from March 20 to July 31, 1914, was intended to display the achievements at the beginning of the Taishō period. Other landmarks, such as the opening of Tokyo Station in December of 1914, were testimony to the rapid change of the city. Japan also benefited from an increasingly globalized entertainment and tourism industry. Ocean liners reached Japan and with them American consumer goods, films, fashion and jazz music. Dancing to jazz music in commercial dance halls became the expression of a new urban middle class (Atkins 2001, 46–54). Typical of this time is also the “modern girl”³⁴. Independent women, working in the cafes of the Ginza street, reading in magazines about the newest trends and spending their money in the department stores.

³⁴ モダンガール,
modan gāru, or *moga*

The development outlined up to this point was brought to a sudden end, when the Great Kantō earthquake³⁵ struck Tokyo on Saturday, September 1, 1923, at 11:58 a.m. with a magnitude of 7.9. Fires broke out and played a big part in the destruction. It was estimated that around 100,000 lost their lives, approximately 60 % of the buildings in Tokyo were destroyed and about 65 % of the population lost their homes (Meid 1977, 319). Most of the victims occurred in the area east of the Imperial Palace, the heart of ancient Edo, which was now wiped out. It was a “major catastrophe that became a

³⁵ 関東大震災
Kantō daishinsai

defining moment in the lives of all Japanese at the time” (Bates 2015, 2).

The Kanto earthquake was of course a disaster for the population of Tokyo. After an initial shock, however, excitement spread among the city planners who had been busy transforming Tokyo into a modern city, and an enthusiasm about the chances of a radical new beginning that opened up started to manifest itself. Gotō Shinpei³⁶ (1857–1929), Home Minister at the time, was in charge of overseeing the reconstruction. He saw an “ideal opportunity to make a perfect new city” (as cited in Schencking 2006, 834). The earthquake razed to the ground most of what was left of the wooden Edo period buildings, as well as a whole series of buildings that had only recently been erected during the Meiji period, and thus allowed Tokyo to be rebuilt from scratch.

In the first half of the Shōwa period until Japan’s capitulation in 1945, Japan pursued an increasingly totalitarian and ultranational policy. After leaving the League of Nations in 1933, this development led to Japan’s invasion of China in 1937. The “Greater East Asia Co-Prosperity Sphere”³⁷ was a concept used by the Japanese imperialist government to justify its imperialist policies. Japan was the only non-Western and Asian power that had successfully carried out industrialization equivalent to that of the Western powers. It was postulated that Asia should unite under the leadership of the Japanese to fight against the Western powers and Western imperialism. In reality, military expansion to these Asian countries was accompanied by many atrocities against the local population (Zöllner 2009, 365–74).

At the beginning of the Showa period, Tokyo had about 4.7 million inhabitants. The population increased to approximately 7.4 million in 1944 and dropped to 3.5 million in 1945.³⁸ Technological developments from the West were now introduced almost simultaneously in Japan and changed the lives of the Japanese. In 1925 Radio broadcasting started (see Chapter 2.2.4). In 1927, the first subway line opened between Asakusa and Ueno, the first Airport in Tokyo, the “Haneda Airfield”³⁹ started its service in 1931.⁴⁰ In 1930, a festival to celebrate the recovery from the Great Kantō earthquake was held.

After the first half of the 1930s had seen flourishing cultural activities involved in international business, the situation increasingly changed with the political situation. The increasing war effort towards the 1940s had an effect on the building activities in Tokyo. After a building boom of cultural buildings in the early 1930s, which resulted in the creation of a large number of new theatres (see Chapter 3) the usage of reinforced concrete was forbidden from 1938 (T. Watanabe 1996, 82), which effectively put an end to any large scale building project. From October of 1940 all dance halls were closed and all jazz performances banned. Most cinemas were closed by 1944 and

³⁶ 後藤新平

³⁷ 大東亜共栄圏
Dai tōa kyōeiken

³⁸ Sources: Statistics Division, Bureau of General Affairs, 東京都総務局統計部

³⁹ 羽田飛行場
Haneda Hikōjō

⁴⁰ accessed April 20, 2022, <https://www.metro.tokyo.lg.jp/ENGLISH/ABOUT/HISTORY/history01.htm>

the largest Kabuki theatre at the time, the Kabuki-za was closed (Mansfield 2009, 188–189). While the above-mentioned areas were severely affected by the sanctions, the situation for symphonic musical life changed somewhat less drastically.⁴¹

⁴¹ *The Japan Times*,
January 6, 1941, 2

Japan attacked the United States in Pearl Harbour on December 7, 1941. The first air-raid on Tokyo took place on April 18, 1942 as a response to the Japanese attacks on Pearl Harbor. Much more severe air-raids on Tokyo took place between November 1944 and August 1945. The most casualties within the population of Tokyo occurred during a phase of air-raids from February 10, 1945 to May 29 1945, in the form of incendiary raids. Approximately 100,000 people died in this phase (Zöllner 2009, 381). The nuclear bomb was dropped on Hiroshima on August 6, 1945, the second one on Nagasaki on August 9, 1945. On August 15, for the first time in the history, the Emperor made a radio broadcast, announcing Japan's surrender. On September 2, 1945 Japan signed the capitulation, and the occupation of Tokyo began on September 8, 1945.

1.2. The introduction of Western Music

In the early Meiji period, military bands were the first to learn and perform European music. The gradual introduction of Western musical practices in the area of the military, however, had already begun before that. During Japan's time of seclusion (1639–1854), the only port open for trade with European countries was the port of Nagasaki (roughly 1,200 km away from Edo, travelling by land), and the Dutch were the only Western nation allowed to trade there, on a small island in the port of Nagasaki, called Dejima. As a result, Nagasaki flourished economically and at the same time became a hub for the transfer of Western science and technology to Japan. It seems, that already in the 1830s a fife-and-drum band⁴² was initiated in Nagasaki by Takashima Shūhan⁴³ (1798–1866), a local samurai who achieved a reputation through innovations in the field of military (Watabe-Gross 2007, 37). Until the Meiji Restoration the local principalities on the one hand, in particular the domains of Satsuma and Chōshū⁴⁴, and the shogunate on the other fought for power in the country. In the following years many *daimyō*, especially from Western Japan, came to Nagasaki to learn Dutch military tactics. In doing so they also began with the implementation of military bands according to Western models. After a military confrontation between the Satsuma domain and the British in the year 1863 the Japanese side recognized the superiority of the Western military technology and began with the adoption of the British military strategy including the practice of music. The British military used this as a reason for stationing troops in Yokohama

⁴² 鼓笛隊
koteki-tai

⁴³ 高島秋帆

⁴⁴ known as the
薩摩長州同盟
Satsuma-Chōshū
dōmei, or Satsuma-
Chōshū alliance

in the following year. In the 1860s the central government also followed and initiated a number of military reforms with the help of British as well as French military personnel stationed in Yokohama.

When Western ships landed in Japan, such as the British arriving in Yokohama, they had military bands of some form with them for a proper entrance. A Dutch ship, which arrived 1844 in Nagasaki, seems to have been the first documented visit of a European ship, which arrived in Japan equipped with a military band (Hebert 2012, 20). When the aforementioned Commodore Perry arrived in Japan in 1853, he also had a military band on board, which was presented when he went ashore. Perry “knew something of music from playing the flute” (Morison 1968, 65), and was apparently very proud of his band. In a letter, he wrote: “I have my band on shore and they play two or three times a week. They have wonderfully improved and have become the best band in the Navy” (Morison 1968, 347).

Military band leaders also played an important role in music education. John William Fenton (1828–1890), born in the Irish town of Kinsale arrived in Japan as bandmaster of a British regiment in 1868 and started teaching a band from Satsuma sometime after that at a Shinto shrine in Yokohama (Hebert 2012, 28). Brass instruments were in short supply. Fenton arranged the import of such instruments from London. When they arrived in 1870, he established training in brass instruments. A year later, in 1871, the Army and Navy bands developed into independent units. Fenton became the instructor of the naval band, while the Army band was from then on entrusted to the Frenchman Gustave Charles Désiré Dagron (1845–1898). In 1879 Fenton’s contract was not renewed.

His successor was Franz Eckert (1852–1916), born in the Silesian village of Neurode. He was a graduate of the conservatories in Breslau and Dresden, after which he was employed as bandmaster in Wilhelmshaven. He came to Tokyo in 1879 and from 1879 to 1880 was the leader of the Navy band. Apart from their responsibilities as band leaders, both Fenton and Eckert are often mentioned in association with the composition of the national anthem *Kimigayo*⁴⁵. Both had played their part in it. The need for a national anthem, which did not exist in pre-modern Japan, emerged in the early Meiji period, when official occasions demanded a national anthem. The text of a traditional short poem called *Kimigayo* was chosen and Fenton composed the music for it (Hebert 2012, 28). In 1880, Eckert was part of a committee to create a new national anthem. A court musician who was part of the committee wrote drafts for new melodies, and Eckert chose from these drafts a melody combining elements from *Gagaku* and Western elements and added harmonies and an arrangement for the military band (Gottschewski 2013, 28).⁴⁶

45 君が代

46 A four-year JSPS project (2014–2018) related to “Franz Eckert and the history of Western music in east asia” was recently completed. accessed April 20, 2022, <http://fusehime.c.u-tokyo.ac.jp/gottschewski/eckert/de/>

The tenures of these European instructors in Japan ended at the end of the nineteenth century. Charles Leroux returned to France in 1889. Franz Eckert returned to Germany in 1899, but soon returned to Asia and became a bandmaster in Seoul from 1901. It was intended that, as soon as possible, the Army and Navy bands were placed under the supervision of Japanese personnel. The name, that is most remembered today in this context is Setoguchi Tōkichi (1868–1941)⁴⁷. Setoguchi, born in the first year of the Meiji period in the Satsuma province, joined the Navy band in Yokohama in 1882 and later became the band leader. He stayed with the Navy band until 1917 (McClimon 2016, 62). While in other areas, such as the music education at the Academy of Music, Western music teachers were hired until the middle of the twentieth century, the army and navy bands already consisted largely of Japanese musicians at the beginning of the twentieth century.

As outlined in this chapter, the gradual introduction of Western music in the military began long before the first year of Meiji in 1868, but when the modernisation of the country was set in motion, the practice of music in the sphere of the military played a major role in establishing Western music in Japan, as illustrated by the creation of the national anthem.

Apart from the military, the court musicians also came into contact with Western music early in the process of modernization. Important sources on this topic were compiled by Tsukahara (1993) and made accessible to German-speaking readers in the work of Watabe-Gross (2007). The accounts of Harich-Schneider (1978) and Harich-Schneider et al. (2006) provide an insight into her work as a teacher of the court musicians, which provided her with valuable insights.

On December 28, 1870 the “court music department”⁴⁸ was established, and assigned with a dual task. One the one hand, the musicians had to maintain the traditions of the court music Gagaku⁴⁹ and on the other hand, they were requested to learn Western music to play at official events at court (Watabe-Gross 2007, 64). In August of 1874, the Court officials applied to the government for permission to train Gagaku musicians in Western music. The musicians were informed that they would be trained in European music from now on. The lessons of the court musicians began in 1874 with 35 people. The aim was to perform Western music on official occasions, but initially, due to a lack of instruments, only music reading was taught. In February of 1875, a request to the government to purchase the instruments necessary to perform the task asked for was granted. With the help of Fenton, 33 musical instruments were imported from London (Harich-Schneider 1978, 535).

The first public concert took place in 1876, for the occasion of the Emperor’s birthday. The lessons had begun two years earlier, but the above

⁴⁷ 瀬戸口藤吉

⁴⁸ 雅楽局
Gagakukyoku

⁴⁹ For an introduction to the traditional Gagaku system, see (Kanō 2002, 756).

mentioned musical instruments had just arrived in Japan from England. The concert was directed by court musician Togi Suenaga (1856–1912), who was twenty years at the time. The program of the concert is preserved, but only song names and no composers are mentioned. According to this program, marches as well as songs like Auld Lang Syne and Kimigayo were played (Harich-Schneider 1978, 536).

The third substantial group to be mentioned in the early phase of Western music practice in Tokyo were the academic institutions established in the Meiji period. The aforementioned court musicians played an important role in these academic institutions, as a report by Isawa Shūji points out:

Orchestra playing is considered the highest in European music. The Gagaku musicians and some gifted students are taught in it. [...] Among the students, the court musicians (*reijin*) made especially rapid progress. They come from the Gagaku musician families, who over generations have practised Gagaku as a profession and handed down as a family tradition, so that they have a very precise ear. (Ongaku gakko hen, dai ikkan 1987, 42–44, as cited in Watabe-Gross, 144)

This following paragraph will look at how the first educational institutions including training in Western music came into being. After the introduction of Western music at the military and the court musicians, it found its way into the field of music education. The institutionalization of music education was part of a reformation of the school system. The exchange with the United States played an important role in this process. Educators like Marion McDonald Scott (1843–1922) or David Murray (1830–1905) came to Japan as advisors, and Japanese officials, such as Mori Arinori⁵⁰ (1847–1889) or Isawa Shūji (1851–1917)⁵¹ were sent to the United States for the purpose of studying American education (Duke 2009). When the Ministry of Education, Science and Culture⁵² was founded in 1871, it introduced regulations for education,⁵³ and singing was required in elementary school and playing instruments in middle school curriculum. This requirement was, however, immediately suspended, as neither teachers nor teaching materials were available at the time (Watabe-Gross 2007).

The person whose name is most often mentioned related to the beginnings of Western music education in Japan is Isawa Shuji⁵⁴ (1851–1917). Isawa studied to become a teacher in the United States from 1875 in a small town in Massachusetts. In Boston, he was introduced to Luther Whiting Mason (1818–1896), a successful music educator who was known for his contributions to the improvement of music teaching in the Boston area. When

⁵⁰ 森有礼

⁵¹ 伊澤修二

⁵² 文部省 *Monbushō*

⁵³ 学制 *Gakusei*

⁵⁴ 伊澤修二

Mason found out about Isawa's struggles with learning music, he taught him at his home. According to Isawa's recollections, the first ideas to install Western methods of music education in Japan were laid out in Mason's home (Howe 1997). After three years in the United States, Isawa returned to Japan with a report entitled "Plan of Megata Tanetarō and Isawa Shūji in the United States for Launching a Project of Music Investigation regarding School Songs,"⁵⁵ which he presented to the deputy Minister of Culture Tanaka Fujimaro. In this endeavour he was supported by Megata Tanetarō (1853–1926), a Harvard graduate who was his supervisor in the United States. Attached to the report was a "commentary" with more practical aspects of the implementation of music education, including the recommendation to appoint Mason as teacher.

Isawa was first appointed as director of the Tokyo Normal School, before on October 7, 1879, he became director of the newly founded Music Research Institute⁵⁶, a department of the Ministry of Education, Science and Culture. Mason was hired by the new institution from March 1880 to July 1883. The main tasks of this institution were the comparison of Western and Japanese music and its tradition, the training of teachers for school music lessons, as well as the creation of teaching material for the lessons. At the start, the institute had 10 pianos, 4 violins, 2 violas, 2 celli, 2 basses, 2 clarinets and one flute. Several of the instruments were provided by the court musicians (Watabe-Gross 2007, 97). After Mason had taught at the institute from 1880 to 1883, he was succeeded by Franz Eckert (1852–1916), who stayed from 1883 to 1886. Following Eckert, the Dutch musician Guillaume Sauvlet took over the post.

A total of 17 concerts took place during the time of the institute. These concerts took place on different occasions, that Watabe-Gross (2007, 136) divided into three categories, namely examinations including a concert at the end of the academic year, public concerts as well as appearances on the occasion of official visits of international guests. At the last graduation concert on February 19, 1887, the graduates performing took on a symphonic work for the first time in the form of one movement from Beethoven's Symphony No.1 (see Section 2.2.1).

In the autumn of 1886 Isawa felt that the time had come to transform the institute into a music academy, and expressed his convictions in a "proposal for establishing a music school"⁵⁷ (as cited in Watabe-Gross 2007, 163). In this text, Isawa described the need to "educate excellent artists and to disseminate high-quality music", so the aims of the academy from this point on slowly shift towards the education of professional musicians. On January 27, 1888, Isawa was appointed director of the newly established Tokyo Academy of Music⁵⁸. Soon the necessity for a new building was discussed. The new

⁵⁵ 学校唱歌ニ用フベ
キ音楽取調ノ事業ニ着
手スベキ在米国目賀田
種太郎伊沢修二見込書
*Gakkō shōka ni mochi-
fubeki ongaku tor-
ishirabe no jigyo ni
chakushu subeki,
zai beikoku Megata
Tanetarō, Isawa
Shūji mikomisho*

⁵⁶ 音楽取調掛 *Ongaku
torishirabe gakari*

⁵⁷ 音楽学校設立の儀
二付き建議
*Ongaku gakkō
setsuritsu no gi
ni tsuki kengi*

⁵⁸ 東京音楽学校
Tōkyō ongaku gakkō

school building including an auditorium for music was formally opened on May 12, 1890.⁵⁹ Regular concerts open to the public, taking place twice a year (spring, and fall) starting in December of 1898.

This overview has highlighted which institutions were active in Japan in the early stages of the practice of Western music. It was shown that this early practice of music had a predominantly practical role and was integrated into the larger undertaking of reforming Japanese society along the lines of powerful European nations.

1.3. Concert venues in Tokyo, an unexplored field

The concert life of individual cities has been an object of musicological research for some time now. The monograph by Eduard Hanslick (1870), in which he presents a history of the concert life in Vienna as early as 1870, was certainly groundbreaking in this respect. Another pioneering work, published a decade later is the monograph “Concert Life in Haydn’s Vienna” by Morrow (1989). The book deals with aspects of concert life, presents the different categories of concerts, highlights practical aspects such as financial and organizational matters, questions of performance practice and concludes with a categorization in a cultural context. The work also includes a concert calendar, which presents the date, venue, name of person or organizer giving the concert, the program, and the source of each entry, between 1761 and 1810. Chapter 3 of this book is dedicated to public concert venues. The different rooms are presented and a number of subjective assessments of the rooms are provided. This chapter ends with the conclusion, that performances in theatres during the time in Vienna were of great importance, and Morrow emphasizes the dependence of musicians on the theatres schedules. The development towards an awareness of the necessity of a dedicated concert hall is also emphasized.

The London concert life has also received much attention and treatises dealing with concert life in London are numerous. After early studies on the “Old Music rooms of London” (Elkin 1955) and “Mozart and Haydn in London” (Pohl 1867), a study that deserves mention, is the monograph on “The concert life from Haydn to Mozart” by McVeigh (1993). This study heavily relies on newspaper articles and is separated in three main parts, the first part presents a socio-cultural history of the concert life including a description of the different types of concerts, such as the subscription concerts and the oratorio series, the second part focusses on questions of “repertoire” and “taste”, and the third part deals with practical aspects of concert organization and promotion. In the end he summarizes, that the establishment of concerts alongside opera in the cultural life of London was a major de-

⁵⁹ JACAR, A15112101600, 東京音楽学校新校開業式ヲ挙行ス, accessed April 20, 2022, <https://www.digital.archives.go.jp/das/image/M0000000000001726395>

velopment, and that the rise of the orchestral concert and the recognition of the concept of a canon of central masterpieces contributed in particular to this development (McVeigh 1993).

In recent years, however, works on the concert life of other cities have also been adding to the picture, an example being a history of the “Concert life in 19th Century New Orleans” from 1805 to 1897, presented by Baron (2013). The book is divided into a topological history and a chronological history. After a short overview of the history of the city, the part on the topological history begins with a description of the concert venues. Subjective accounts of the acoustics of these venues are mentioned but are not further investigated with regard to objective acoustic quantities. The venues are documented graphically with images of the façades, in two cases with a graphical representation of the interior and in one case with a drawing. Other examples are a monograph on the concert life in Hamburg, by Sittard (1890), as well as a dissertation on the Concert life in Berlin by Röder (2009).

In these works, the importance of the venues where music performances took place was repeatedly emphasized, but a study that established objective criteria of these venues to allow a comparison did not exist. When looking for works combining approaches of acoustics and music history, the first study that has to be mentioned is that by Jürgen Meyer on the “Room acoustics and Orchestral Sound in the Concert Halls of Joseph Haydn”⁶⁰. Meyer starting point is the fact that works of the Baroque and Classical periods are being performed today in conditions quiet different from those when these works were created. He is asking the question, to what extend the change of the room acoustic environment can be compensated by adapting the size of the orchestras and the playing style, when a most authentic performance is intended. Based on reverberation time that were measured in Eisenstadt and Esterháza castle, and calculated for the two rooms that Haydn performed in during his time in London, Meyer calculated a relative sound energy density level. By taking into account the number of musicians of each group of the historical orchestras, he was able to calculate a mean *forte* sound level of a typical *tutti* sound based on these sound energy density levels. He concluded that the rooms Haydn performed in are characterized by a high sound energy density level and the high degree of “spaciousness”, which benefits the dynamic impression of the music. He further states that a compensation in some modern concert halls would be difficult to achieve by adapting the size of the orchestra as well as the playing style. This conclusion is relevant both to the conception and planning of new concert halls as well as to the historically informed performance practice (Meyer 1978).

In the study published by Weinzierl (2002), the acoustic conditions of the historical concert venues used for the premiere performances of Beethoven’s

⁶⁰ *Raumakustik und Orchesterklang in den Konzertsälen Joseph Haydns*

symphonies were investigated. In order to identify the venues used for orchestra performances, a concert calendar containing all orchestral performances before 1827 was compiled. The building history and the architectural features of the 10 most important rooms were described and their acoustic conditions investigated. For the venues still available in the condition of interest, room acoustical parameters were derived from measurements, for those not existing in the original form, these parameters were derived from room acoustical simulations, based on 3D-models. The study shows that the available rooms featured much less homogenous acoustical conditions with regard to the reverberation times as it is the case in modern concert halls. Furthermore, these rooms were characterized by a small source-receiver distance and high sound strength values and lateral reflections, resulting in high degrees of intimacy, proximity, and dynamic (Weinzierl 2002, 216). Weinzierl highlights the fact that the possibilities to adapt the orchestra size and playing style to achieve an effect similar to the original conditions (a practice common in Beethoven's time) is unrealistic in today's concert halls due to the much larger volumes and source-receiver distances.

A study by Howard et al. (2009, 197) offers measurements of objective room acoustic parameters in twelve Venetian churches, as well as recordings of a choir in different locations in the churches and a subjective evaluation of these performances by the singers themselves as well as an audience present during the performances. One of the churches was destroyed in the nineteenth century and was therefore investigated using a virtual reconstruction and geometrical acoustic simulations. The churches (with reverberation times in the range from approximately 1.5 to 8 seconds) and their institutional and building history as well as a large number of acoustical data is presented. The recordings made of the choir performances are available on a website.⁶¹

When looking at the available literature dealing with the introduction of Western music in Japan, an early work related to the subject is the book edited by Borris (1967) entitled "Music life in Japan"⁶². The book is intended for "musicians or managers, or those who have a commercial interest in Japanese musical life" (Borris 1967, 9). The work features a short overview of the cultural history of Japanese music including the introduction of Western music. Another early study that deserves a mention was presented by the German harpsichordist and musicologist, Eta Harich-Schneider, who came to Japan in 1941 after losing her status as professor at the Berlin conservatory. She can be credited to have written the first comprehensive work on traditional music genres in Japan (Harich-Schneider 1973). In this roughly 700 pages work, she covers all musical genres in Japan

⁶¹ accessed April 20, 2022, <http://djh1000.user.srcf.net/soundandspace/>

⁶² *Musikleben in Japan*

63 昭和時代

from the prehistoric Jōmon period (traditionally dated between 14,000–300 BCE) to the time of the publication. The aim to cover all historical periods has led to the phase of the introduction of western music being treated rather briefly in this book, and the concert life of the pre-war Shōwa period⁶³ (1926–1945), that Harich-Schneider has to some extent been a part of, is not mentioned at all. Of larger interest for the research question presented here, are therefore her eyewitness accounts of the musical culture experienced in Tokyo after arriving there in 1941, described in the book “Charaktere und Katastrophen” (Harich-Schneider 1978). Harich-Schneider’s work is not without criticism. Helma Götz, in her biography of the German opera composer and conductor Manfred Gurlitt expressed, that “the autobiography of Eta Harich-Schneider must be read very critically. Many of her remarks about Gurlitt’s personality are one-sided, partly refutable. Since also her other reports are not always comprehensible and appear to me partly untrustworthy, I do not want to use this book further as a source for Gurlitt” (Götz 1996, 135).

The next larger work related to the topic is the dissertation by Irene Suchy (1992). The thesis examines the cultural transfer of European art music to Japan, by looking at the German-speaking musicians that were engaged as teachers or concert musicians and thus played an active role in the dissemination of European classical music in Japan. A main focus of the investigation are compositions created by the individuals in question during their stay in Japan and their attitudes towards traditional Japanese music. The main part of the thesis presents four case studies in more detail, presenting the activities of Rudolf Dittrich (1861–1919) and Klaus Pringsheim (1883–1972), who came to Japan following an official government invitation and those of Joseph Laska (1886–1964) and Hans Ramseger, who came as traveling musicians or for private reasons. The thesis also includes a roughly 100 page long appendix (Suchy 1992, 185–284), presenting the personal history, educational background, occupation before coming to Japan and in Japan, as well as writings on Japanese music and compositions created in Japan. This part offers many primary sources, including private communication, official employment documents and compositional sketches, making this work a valuable and much frequented source.

Schauwecker (1994) contributed a study in a collection of essays on the German-Japanese relations in the 1930s and 1940s. After naming some music institutions, he covers the tension of the cultivation of German versus French music traditions and the rivalry for spheres of influence through the respective institutions. He then outlines the increasing restrictions placed on the music business and music life and covers the concert which was organized for the occasion of the 2600th anniversary of the empire in 1940, as

well as the musical events related to the cultivation of the German-Japanese coalition. Especially interesting is the information he gathered concerning the (for a long time unsuccessful) German attempt to exert influence on the activity of Jewish musicians in Japan and the attempts to accomplish a replacement of Joseph Rosenstock (1895–1985) as principal conductor of the New Symphony Orchestra.

In the 2000s a number of works were presented related to aspects of the introduction of Western music in Japan starting in the Meiji era, by Laube-Przygodda (2001), Galliano (2002), Nakasone (2003), Hirschfeld (2005), and Watabe-Gross (2007). The first contribution published in the 2000s by Laube-Przygodda (2001) compares the “musical situation” in the 20th century in Europe, the United States, and Japan from the turn of the century to the 1990s, treating every area by decade. Each part contains a short socio-cultural introduction, names a number of composers and compositions, refers to sound examples and also includes examples from painting, architecture, from the same period. The is mainly a collection of information. The very large scope of this study, both temporal and spacial leads to the fact that the points given can merely represent examples. On the other hand, the large scope helps to get a glimpse of the big picture, which is an interesting point of view in itself. However, many cultural buildings are not included in the study, which seems peculiar as this type of building would have been the first obvious choice. For example for the 1990s, the list of examples from architecture include the Kansai airport, but not the Suntory Hall.

Galliano (2002) focusses mainly on the Japanese musicians and composers, and their challenges and intricacies of music production from the time the Western music was introduced in Japan. In the first chapter, this book also includes a overview over the reasons for the introduction of Western music in Japan. Chapter 2 focusses on the discussions related to the future of Japanese music in the 1920s and 1930s, a discussion which was mainly concerned with the question of how to harmonize Japanese melodies with Western models of harmonization. Chapter 3, entitled “A new Musical World” outlines the beginnings of a musical life in Japan. The history of the first symphony orchestras is summarized (Galliano 2002, 94) and this section mentions that “in 1905, the military bands of the army and navy began to give regular concerts in a new auditorium situated in Hibiya Park. As the level of musical activities rose, concerts by full symphony orchestras began to replace those given by the military bands”(Galliano 2002, 92), and we also learn that the “Imperial Hotel, designed by Frank Lloyd Wright and which had only just been completed, employed a symphony orchestra” (Galliano 2002, 94), but for all other orchestral activities mentioned in this section, no

venues is specified. Chapter 4 highlights the effects of the war years and the resulting restrictions on the music life as well as the emergence of left wing groups. The remaining three chapters examine the activities of the post-war composers and musicians.

Nakasone (2003) discusses the reasons for the introduction of Western music in Japan during the Meiji period and the special role of German music in this context. The entire study is written in reference to the methodological positions postulated by Max Weber. It begins by outlining the institutions responsible for the introduction of Western music as well as the historical and political context these initiatives and advances were embedded in. The study includes an investigation of the development of music in Germany and England and the reasons are presented why, according to Nakasone, the development of culture and particularly in music stagnated in England while it flourished in Germany. Nakasone concludes that “In England of the 17th 18th and early 19th centuries, puritanism, with successively decreasing strength, inhibited the development of music” and that “institutionalized places of music appreciation could hardly establish themselves”(Nakasone 2003, 94–95). This seems to contradict McVeigh (1993), who concludes that “viewing London’s early concert life from a historical perspective, one is immediately impressed by the prodigious growth of musical activity, which escalated dramatically during the second half of the eighteenth century”.

The book with the popular title “Beethoven in Japan” written by Matthias Hirschfeld (2005) presents a condensed overview on the introduction and dissemination of Western music in the Japanese society. The monograph is a revised and extended version of his final thesis submitted at the University of Leipzig. It covers the period from the first contacts with Western music to the present, also raises sociological questions and explores the popularity of Beethoven’s Ninth Symphony. The book contains a chapter on the “creation of a Western musical life”⁶⁴, which presents an overview of the most important aspects related to the creation of an audience, the first orchestras, as well as the role that music journals and mass media played in the process of dissemination. Limited mostly to the description of activities in Tokyo, it is mentioned that the available venues consisted of the hall of the Rokumeikan, the Auditorium of the Academy of Music, and the “Auditorium in Hibiya, opened in 1905” (the first open-air bandstand in the park was opened in 1905, the Hibiya Public Hall was opened in 1929).

Discovering these works, the brief and concise descriptions of the pre-war concert life have been a helpful starting point for the research in this field. At the same time, the often very short or not further elaborated passages on the formation of the symphony orchestras as well as the missing description of the concert venues have nourished the desire to investigate

⁶⁴ *Etablierung eines westlichen Musiklebens*

these aspects in more detail and have therefore partly motivated this study. For example, Hirschfeld writes (without further specification) that “between 1925 and 1935 alone, six professional orchestras for operas and symphonic works were founded”⁶⁵ (Hirschfeld 2005, 58). A similar passage in Galliano’s work reads “between 1925 and 1935 no fewer than six professional orchestras were created to perform opera and symphonic works” (Galliano 2002, 58).

A valuable addition to the state of research is the work by Watabe-Gross (2007). The study examines the “Introduction of European music in Japan” in the time between 1855 and 1888 and focuses on the activities of the military bands of the Army and the Navy, the court musicians and their side activities in the *Yōgaku Kyōkai*⁶⁶, as well as the Music Research Institute. Many sources previously not available in any Western language work are made available in this study and especially the information concerning the Music research institute are plenty, including a chapter on the concerts (Watabe-Gross 2007, 136–154) with an overview of all 17 concerts and a discussion of the most important ones including information on the music played and the performers, followed by an analysis of the concert programs. I am indebted to this work for finding the plans of the Music Research Institute at the archives of the Tokyo University of the Arts, thanks to the well documented sources including the Chinese characters of all works cited and individuals presented. The final chapter presents a case study of “Japan’s first piano teacher Uryū Shige” (Watabe-Gross 2007, 165).

The state of research was further improved, as far as the description of the formation of orchestras before the war is concerned, by two works, both of which were published in 2014. Margareth Mehl (2014) concerned with the history of the violin in Japan, contains a chapter on the rise of the Symphony Orchestra. As the title suggests, the work explores the cultural history of Western music in Japan from the point of view of the violin. The establishment of the professional symphony orchestras is presented here in more detail than in previous studies. A review of the book in German by Gottschewski (2017) was published recently in the *Japonica Humboldtiana*. In the same year, Bieber (2014) presented his work on the “German-Japanese cultural relations 1933–1945”, which on roughly 1,300 pages covers all aspects of cultural activities including theatre, film, literature and music. It documents performances from Japanese individuals in Germany, such as conducting engagements by Konoe Hidemaro with the Berlin Philharmonic, as well as activities from Germans in Japan. The work is built on a large number of primary sources, found mostly in German archives, which are very well documented and present. When describing the orchestral performances in Tokyo, Bieber frequently relies on articles from the Japan Times.

⁶⁵ *Allein zwischen 1925 und 1935 wurden sechs professionelle Orchester für Opern und sinfonische Werke gegründet [...]*

⁶⁶ 洋楽協会

In this regard, he preceded this study with regard to the question of evaluating the rich treasure of information which can be found in the Japan Times.

An investigation devoted to the concert venues, which describes them from an architectural point with regard to their function as spaces for music performance, and also considers the musicological implications including aspects of room acoustics and performance practice is still missing and was the main motivation to engage in the study presented here. Some of the rooms investigated here have already been described in Western literature, while others have not been mentioned at all. The hall of the Academy of Music is described in some (architectural) detail by Coaldrake (1996) and Finn (1995). Considering the significance of the Hibiya Public Hall for the pre-war culture of Tokyo, it is surprising that this building has basically not been mentioned in Western literature so far.

1.4. Goals of this study and delimitation

Based on the situation described in the previous chapter, the following main goals for this study were formulated:

1. A documentation of symphonic concerts in Tokyo until 1945, extending the available data on orchestral performances, especially for the period between 1923 and 1945.
2. A documentation of all venues that have been used for symphonic concerts before 1945 in Tokyo, regarding their form, size, capacity and acoustics. For the investigation of the acoustic conditions, a set of room acoustic parameters will be employed.
3. An examination of the developing symphonic concert life in Tokyo based on this analysis of the architectural and acoustic conditions up to 1945 in comparison to the situation at the time in Europe and the United States.

The investigation begins in the year 1868, the beginning of the Meiji period. As described in this introductory chapter, a modernization process was initiated that included the systematic introduction of Western music which built the foundation for the development of a symphonic concert life. The time of the previous introduction of Church music in and before the Edo period is not part of this study. An important turning point considering the historical development was marked by the Great Kantō earthquake in 1923. The period under investigation ends in 1945, with the air-raids on Tokyo destroying a number of the symphonic concert venues under investigation. The occupation of Japan from September of 1945 brought about

major political, economic and social reforms, and a new chapter of the cultural life in Tokyo started that also impacted the symphonic concert life of the capital.

This study focusses on concerts and concert venues in Tokyo. Not considered in this study are symphonic concerts and concert venues in the rest of Japan, such as in cities like Kyoto, Osaka, and Nagoya, as well as concert tours of Japanese orchestras to the colonies like Manchukuo, to Korea or concert activities by Japanese musicians as guests in Europe. This is not to say that a concert life did not develop in these cities, but Tokyo played a particularly important role in the period of this radical restructuring of the Japanese society, which justifies in the author's opinion a focus on this metropolitan region in this study. In particular, the great Kantō earthquake of 1923 makes the situation in Tokyo a special case, as the devastating destruction of the city spurred change to a degree not seen elsewhere during this period. This is especially true when the focus is on the study of the buildings, as is the case in this study. The regional peculiarities and differences of the concert life and concert venues in the Kansai region compared to Tokyo are, however, an interesting and very relevant research question that hopefully will be addressed in future studies by other researchers. The concert life in Kansai has been explored in the studies by Tokita (2012) Ferranti et al. (2013) and Negishi (2014).

Chapter 2.

Concert Life in Tokyo

2.1. The concert life database

2.1.1. Motivation

The beginnings of the practice of Western music in Japan are described in detail in a series of monographs, which were summarized in the previous chapter. Less detailed is the available literature for the period from the Great Kantō earthquake in 1923 until the end of the Second World War in 1945, although this period seems to have been of particular importance for the emerging symphonic concert life. Galliano (2002, 94) for example writes that “between 1925 and 1935 no fewer than six professional orchestra were created to perform opera and symphonic works”, for which similar accounts can also be found. Even more scarce than the description of the concerts in this period is the available information concerning the venues, where these concerts took place. The motivation for the database presented here is therefore

- to extend the available data on orchestral performances, especially for the period between 1923 and 1945, and to shed light on the extent of orchestral activities,
- to provide a thorough and comprehensive empirical foundation for the selection of the relevant performance venues, which will be described in more detail in this study,
- to provide an open web access database, which allows the combination of already existing data into one centralized database open for other stakeholders to further increase the meaning of individual collections (see Section 2.1.3).

Based on these goals, the following requirements for the database were formulated.

2.1.2. Requirements

The following requirements were formulated for a database as an adequate tool for the acquisition of performance data to fulfil the above-mentioned goals:

1. The database should be organized as an event-based list, with basic information including title, date, time and venue, information on the program that was performed and the individuals involved. At least one source should be specified. At every level, scientific comments should be made possible allowing an ongoing discussion as more data is being gathered.
2. The spelling and notation used for the entries of names, institutions and works should follow the standard of the “virtual international authority file” VIAF⁶⁷, bringing together different national authority files in an open web-access interface. In the collection presented, the VIAF-id’s for individuals and works and a link to the respective VIAF-files are added to the database when available.
3. English should be the primary language of the database for the widest possible range of coverage, but data entry and queries using Japanese characters should be provided as well.

⁶⁷ viaf.org

2.1.3. Sources

There is a variety of sources available that can be harvested to get a picture of the symphonic concert life in Tokyo in the period under investigation.

1. Concert programmes can be found in a number of archives. A valuable collection is accessible at the “Archives of Modern Japanese Music”⁶⁸, established in 2011, and is part of the Meiji Gakuin University Library.
2. There are a number of books on the history of individual orchestras, containing chronological concert calendars. Such books exist both for professional orchestras, as well as for most of the university orchestras. The most relevant ones are:
 - a) a book celebrating the fiftieth anniversary of the NHK Symphony Orchestra, including a list of all subscription concerts, as well as concerts excluding subscriptions (NHK kōkyō gakudan 1977)
 - b) a monograph describing the history of the Tokyo Philharmonic Orchestra, which includes an overview of all concerts (Tōkyō Firuhāmonī kokyō gakudan 1991)

⁶⁸ 日本近代音楽館

- c) a book describing the history of the Tokyo University Orchestra, which also includes a concert calendar for the time before 1945 (Ota 1964)
 - d) a book which presents a detailed record of the concerts of the Kunitachi College of Music (Ensō no 80 nenshi henshū gurūpu 2007)
 - e) a monograph in three volumes, which collects the history of the Tokyo University of the Arts, and its predecessor, the Tokyo Academy of Music (Tōkyō geijutsu daigaku 1987)
 - f) a monograph presenting a collection of programs from the concerts at the Hibiya Park bandstand (Tanimura 2010)
3. A number of Japanese and English newspapers have databases which provide OCR-scanned documents (all the databases were accessed through the CrossAsia service, provided by the East Asia Department of Berlin State Library):
- a) The “Japan Times Archives Online Edition” allows full-text-search of all articles of the newspaper since the first publication on March 22, 1897
 - b) The online database of the Asahi Shimbun, the “Kikuzo II visual for libraries”⁶⁹ offers pdf files that can be searched based on the descriptions provided for articles from 1879 until 1989. Full text search is available for articles since 1985
 - c) In the Maisaku⁷⁰, the database by the Mainichi Shimbun, full-text-search is available for articles from the years since 1987, for the years before from 1872–1986 “only the headings of important articles are indexed”
 - d) The database of the Yomiuri Shimbun, the “Yomidasu Rekishikan”⁷¹ provides all articles since its inception in 1874. The keyword search is conducted using “a glossary developed by The Yomiuri Shimbun”
4. There is also a number of books with transcriptions of newspaper articles, such as the compilation by Akiyama (1966), which also represent a valuable source.

⁶⁹ 聞蔵II ビジュアル

⁷⁰ 毎索

⁷¹ ヨミダス歴史館

In order to handle the large number of available sources, the following strategy was used: First a number of existing lists was added to the database, starting with a book, celebrating the 50th anniversary of the NHK Symphony Orchestra, which occurred on October 5, 1976 (NHK kōkyō gakudan 1977). In this book, Ogawa Takashi⁷² has compiled a chronological list of

⁷² 小川昂編

performances between 1926 and 1977, including 714 subscription concerts, 271 of them until the end of 1945. The first 112 of these subscription concerts took place at the Nihon Seinenkan Hall⁷³, the remaining 159 until the end of 1945, starting from September 30, 1932 all took place at the Hibiya Public Hall. The list is especially useful, and was added to the database as the first set of data, since the information displayed contains a high level of detail, regarding the program of each individual performance as well as the names of the performers including the Japanese characters. The book also includes a list of “concerts excluding the subscription” (261 until the end of 1945). Unfortunately, no information about the venues is included in the list of concerts excluding the subscription.

⁷³ 日本青年館

Table 2.1 Names of concert venues and number of subscription concerts played by the New Symphony orchestra, found in the book celebrating the 50th anniversary of the NHK Symphony Orchestra.

Name	Japanese	Results
Nihon Seinenkan	日本青年館	112
Hibiya Public Hall	日比谷公会堂	159

In the appendix of the book about “the story of the first time of the 9th”, Yokota presents a list of 238 orchestral concerts, in the period between 1868 and 1926 (Yokota 2002) which is entitled “chronological record of important orchestral concerts during the Meiji and Taisho periods”⁷⁴. The 100 concerts which have been identified as having taken place in Tokyo, have been added to the database. Venues where more than just one concert has taken place, are given in table 2.2.

⁷⁴ 明治大正時代における主なオーケストラ交響曲演奏記録年表

Table 2.2 Names of concert venues and number concerts found in the list of important orchestral performances by Yokota.

Name	Japanese	Results
Hall of the Tokyo Academy of Music	東京音楽学校奏楽堂	55
Hibiya Park Bandstand	日比谷公園音楽堂	25
Hōchi Newspaper Auditorium	報知新聞講堂	5

The information in this source is rather limited, e.g. only one major work is given instead of the whole program, so these entries were later refined with the help of other sources, most importantly the Japan Times.

In order to estimate the number entries related to orchestral concerts

available in the Japan Times database, a search for the combination of the keywords *orchestra* and *concert* was conducted for each year between 1897 and 1945, resulting in a total of 5,739 results. To cope with this large number of results, they were cross-referenced with a list of 65 venues compiled by Maeno Masaru⁷⁵ (Tōkyō shinbun shuppan kyoku 1987). Each venue given in Maeno's list was searched for in the Japan Times online database combined with the two aforementioned keywords. The results of this search per room are displayed in Appenix D. Using this approach, Maeno's list could be reduced to 13 rooms. Besides the hall of the Academy of Music, the Nihon Seinenkan and the Hibiya Public Hall, which have already been identified by looking at the monographs mentioned above, additional 10 venues were identified, which are presented in Table 2.3, including the Japanese name and the number of results.

⁷⁵ 前野まさる, professor emeritus of Tokyo University of the Arts

Table 2.3 Results of cross-referencing the list compiled by Maeno with the Japan Times database search results for *concert* and *orchestra*, names are given as they were found in the Japan Times.

Name	Kanji	Results
Kanda YMCA	神田美土代青年会館	14
Imperial Hotel	帝国ホテル	80
Yūroku-za	有楽座	13
Imperial Theatre	帝国劇場	11
Kabuki-za	歌舞伎座	15
Nanki Auditorium	南葵楽堂	16
Tokyo Gekijō	東京劇場	14
Tokyo Asahi Auditorium	東京朝日新聞講堂	28
Gunjin Kaikan	軍人会館	26
Kyōritsu Hall	共立講堂	22

Concerts at university auditoria, such as the Meiji University, were found checking the above mentioned list but were not considered in the investigation in Chapter 3 and Chapter 4. Orchestral concerts at the Yūroku-za were confirmed for the second version of the building only, so the first version of the building was not included in the aforementioned chapters. The investigations regarding the chronological history of symphonic concerts (see Section 2.2) have revealed concerts in venues that were not included in the above mentioned list, namely the Nippon Gekijō and in Tokyo Takarazuka Gekijō. In addition, the review of the Japan Weekly Mail has brought forth orchestral concerts at the Rokumeikan. Although some concerts were confirmed for the Hōchi Newspaper Auditorium, this was not included in

the investigations in Chapters 3 and Chapter 4 since no architectural data and not sufficient information about the building could be found.

2.1.4. Implementation

A database was initially implemented to meet the above stated requirements using a commercially available content management system. In April of 2018 however, the “Berlin Workshop on Music Performance Databases” was held at the Institute of Technology Berlin, partly organized by the author, which focused on the digital documentation of musical performances using electronic databases. The participants of the workshop were experts from different backgrounds, such as collection curators, historical researchers or librarians. One of the aspects discussed at the workshop, was the technical infrastructure, and in particular the long-term archiving of such datasets, which presents a challenge due to the usual duration of these kind of research projects. The “musiconn.performance” project, which was being developed at the Saxon State and University Library Dresden SLUB was presented at the workshop by Andrea Hammes, one of the main researchers involved. The goal of this project is to develop an infrastructure, “with the aim to provide the scientific community with an instrument for recording performance events in different research contexts” (Wiermann 2018, 410). Since this system met all the requirements formulated necessary for this project. The acquired data has therefore been transferred to the “musiconn.performance” system and can be accessed as part of this environment at the following url:

<https://performance.musiconn.de/projects/concert-life-and-concert-venues-in-tokyo>

2.2. Chronological history of the concert life in Tokyo

In this chapter, the chronological development from the first attempts to form a symphony orchestra to the subscription concerts of professional orchestras in the 1940s will be laid out. Many of the books on the history of individual orchestras mentioned in the previous chapter include a timeline of “events in the music world” parallel to the calendar of concerts (e.g. Tōkyō geijutsu daigaku ongakugakubu ongaku kenkyū sentā 1990). These have been used as an outline for this chapter.

2.2.1. Early orchestral endeavours, 1868–1904

The three institutions, active in the beginnings of Western music practice in Japan have already been discussed in the previous chapter. The first pub-

lic concert in Tokyo seems to have been a concert of the Music Association⁷⁶, which took place on February 12, 1882, at the Honganji temple⁷⁷ (e.g. Watabe-Gross 2007, 81). In the Japan Weekly Mail, it was announced that the “Ongaku Kiokwai [...] will hold a concert on the Hongwanji temple at Asakusa, Tokio, on the 12th instant”⁷⁸. After this first public concert, the frequency of public concerts slowly started to increase.

On February 19, 1887 the sixteenth concert at the Music Research Institute took place, under the supervision of Guillaume Sauvlet (1843–1902), a professional musician from the Netherlands, who took over Franz Eckert’s post at the Institute in 1886. At this concert, in which for the second time graduates were presented to the public, some parts of Beethoven’s Symphony No. 1 were performed, arranged by Sauvlet for the 14 graduates of that year (Watabe-Gross 2007, 152).

The concerts of the Institute ended after 16 concerts, because the status of the institute was changed in 1886 to the Tokyo Academy of Music. Based on an initiative by Isawa Shūji to establish a music academy for the training of professional musicians, which he expressed in a “proposal for establishing a music school”⁷⁹ (as cited in Watabe-Gross 2007, 163). This request was approved and on October 4, 1887, the Music Research Institute became the Tokyo Academy of Music⁸⁰. Public concerts, including graduation concerts, were held at the Academy of Music from 1888. A regular concert series began in 1898 with the first concert on December 4, 1898 (Tōkyō geijutsu daigaku 1987). In addition, music societies were formed with the aim of disseminating Western music to the public.

In order to increase the reputation of the newly established Music Academy, it was decided to hire a professional musician as a teacher, who would receive the title of “artistic director”. An appropriate candidate was eventually found in Vienna in the person of Rudolf Dittrich (1861–1919), 27 years old at the time. Dittrich, born in Biala (today part of the polish city of Bielsko-Biala), had studied violin at the conservatory in Vienna.⁸¹ His teachers included Josef Hellmesberger (1855–1907) and Anton Bruckner (1824–1896), and to both he kept a personal relationship. He graduated with honours, and was looking forward to a promising career, but according to his biographer, decided to take the chance of accepting the position in Japan, due to the very strong competition for a limited number of employment opportunities in Vienna. The opportunity in Japan was established through the contact to the Helmersberger family (Hirasawa 1996, 13–16). Joseph Hellmesberger Sr. (1828–1893), director of the conservatory at the time, recommended Dittrich for the engagement in Japan. At the Academy of Music in Tokyo, he was initially provided with a contract for three years from November 1, 1888 to September 1, 1891, which was then extended for

76 音楽協会
Ongaku kyōkai

77 本願寺

78 *The Japan Weekly Mail*, February 11, 1882

79 音楽学校設立の儀
二付き建議

80 東京音楽学校
Tōkyō ongaku gakkō

81 *Konservatorium der Gesellschaft der Musikfreunde*

another 3 years. His first concert appearance took place in March of the following year. The struggles Dittrich faced, were described in an article in the Japan Weekly Mail:

The system by which the School is regulated offers but small encouragement to the formation of a competent body of musicians. It has, apparently, no such purpose in view. The particular aim, we understand, is to educate individual students to a degree of ability that shall qualify them to act as teachers in other institutions; and when that point is reached, they are liable to be sent away at short notice, without regard to the loss which the little orchestra suffers from their departure. [...] Since the luxury of orchestral production, on a broad and full scale, is denied to us who dwell in this land, we have reason to be grateful for such suggestive impressions as are conveyed by the intelligent artistic group under Mr. Dittrich's command.⁸²

⁸² *The Japan Weekly Mail*, December 23, 1893, 759

After Dittrich left Japan in 1894, there initially was no successor. The political situation after the first Sino-Japanese war (1894–1895) led to the Music Academy losing its independence for several years. It was not until April 1, 1899, that in the person of August Junker, a replacement of similar acclaim succeeded him (Mehl 2014, 54).

Apart from the concerts at the academy, an increase in concert activity was driven by music societies, which were formed starting in the 1880s. After the Western Music Society⁸³, which was started as early as 1879 on the initiative of musicians of the court orchestra, the Japan Music Society⁸⁴ was founded in 1887 (Watabe-Gross 2007, 82). The first concert took place at the ballroom of the on January 20, 1887. By 1888, the society had a total of 216 members, with Nabeshima Naohiro⁸⁵ (1846–1921) as president and Hachisuka Mochiaki⁸⁶ (1846–1918) as vice-president. Isawa Shūji acted as secretary. Franz Eckert, Guillaume Sauvlet, and Rudolf Dittrich were also members of the society.⁸⁷ The following program is an example of a concert organized by the Japan Music Society in this period, and it shows the three groups mentioned in the previous chapter all appearing together. The concert started with an opera overture given by the Army band, followed by recitals of students of the Academy. It featured a recital of Rudolf Dittrich, and some Western music performed by the court orchestra, here referred to as the Shikibushoku Band⁸⁸.

Looking at these programs, symphonic works were mostly played by the Army and the Navy band. A concert on April 21, 1889 featured the Andante from the C minor Symphony by Beethoven played by the Navy Band⁸⁹. This

⁸³ 洋楽協会
Yōgaku kyōkai

⁸⁴ 日本音楽会
Nihon ongakukai

⁸⁵ 鍋島直大

⁸⁶ 蜂須賀茂韶

⁸⁷ *The Japan Weekly Mail*, March 9, 1889, 228

⁸⁸ which refers to
宮内省式部職雅楽部
*Kunaichō shik-
ibushoku gagakubu*

⁸⁹ *The Japan Weekly Mail*, April 6, 1889, 327

PART I.

1. Introduction from "Bal costume"A. Rubinstein.
By the Army-Band.
2. "Romance" for Violins with PianoF. Ondricek.
By the Violin-students of the Tokyo Academy of Music.
3. Chorus for 3 female voices with Piano.
"Hoshun" (Spring).....W. Bargiel.
Words by Mr. Torii.
By the Students of the Tokyo Academy of Music.
4. Chorus and Aria from "Magic Flute" for orchestra,
W. A. Mozart.
By the Shikibushoku-Band.
5. Romance and Gavotte from "Mignon" for Violin
Solo with PianoA. Thomas—F. de Sarasate.
Mr. Dittrich.
6. Chinese Music.—a. "So-cho sui."
By the Nagahara Society.
b. "San-goku-shi."
By Mr. and Mrs. Nagahara.

PART II.

1. "Herzenslieb," pleasant tune for orchestra.....Popp.
By the Shikibushoku-Band.
2. Aria for Soprano from "The Creation"J. Haydn.
Mrs. Tietze
3. a. "Night-tune" for Violins with Piano —
b. "Gavotte" for Violins with PianoL. H. d'Egville.
By the Violin-students of the Tokyo Academy of Music.
4. Japanese *Koto* Music.
a.—"Fukino Kyo'en" for *Koto* with Violin. Yatsuhashi.
By the Teacher and Students of the Tokyo Academy of Music.
b.—"Tamagawa"Kinnyama.
Mr. Yamase. Shikibuchi. Mr. Hara.
Koto Mr. Yamato. *Akuta*Mr. Yamamuro.
SamisenMr. Kushita.
5. Overture from "Dumb Girl of Portici"Auber.
By the Army-Band.

Figure 2.1 Program of a typical concert of the Japan Music Society from the year 1891, showing the different orchestral groups that were active in these concerts.

concert was given in the central hall of the *Gakushūin* university⁹⁰. Before the opening of the hall of the Academy, we find such concerts in a number of different locations, but none of these locations became a regular concert venue. After the opening of the hall of the Academy in 1890, the concerts were mostly taking place at the hall of the Academy. At a concert on June 27 “at the New Music Hall at Uyeno” the “Army and Navy bands played some excellent music.”⁹¹ The program featured the March from *Tannhäuser* by Richard Wagner, played by the Army band. No information was given in the available sources regarding the number of musicians of these orchestras.

Apart from the Japan Music Society, other societies that organized concerts also emerged. The Tokyo City Music Society⁹² was formed in 1886 supported financially by Shibusawa Eiichi, the Oriental Music Society⁹³ followed in 1889 (Mehl 2014, 33).

The Meiji Music Society⁹⁴, established in 1898 by Uehara Rokushiro⁹⁵ (1848–1913), gave a first concert at the Hall of the Y.M.C.A in Kanda.⁹⁶ With the support of Nabeshima, the society managed to establish a regular concert series, which continued for several years. The concert advertisements in the Japan Times most of the times did not specify any titles but announced that the concerts would feature both Japanese and Western music.

An impression of how these concerts evolved can be obtained by looking at the descriptions in the daily newspapers of the time. In June 1898, the “Society’s String Band, played with much skill and expression.”⁹⁷ In a concert in April of 1899, the “orchestral concert” featured “several lively waltzes”⁹⁸. At a concert in 1901 at the hall of the Academy “an orchestra of twenty mem-

90 学習院大学,
Gakushūin daigaku,
a school for the children of the Japanese nobility

91 *The Japan Weekly Mail*, June 28, 1890, 653

92 東京市中音楽会
Tōkyō shichū ongakukai

93 東洋音楽会
Tōyō ongakukai

94 明治音楽会
Meiji ongakukai

95 上原六四郎

96 *Yomiuri Shimbun*, January 21, 1898, M.E., 4

97 *The Japan Times*, April 30, 189, 3

98 *The Japan Times*, June 12, 1898, 3

bers” was announced to perform “a brilliant overture by Verdi.”⁹⁹

The Meiji Music Society frequently used the Y.M.C.A in Kanda for its concerts. Outside of the context of the Academy, the Kanda Y.M.C.A can therefore be seen as the first venue, where some early form of a regular series of orchestral concerts started to develop.

⁹⁹ *The Japan Times*,
January 15, 1901, 3

Concert in Tokyo.

THE MEIJI ONGAKU-KWAI will give on SATURDAY, July 1st, at 8 p.m., at the HALL of the YOUNG MEN'S CHRISTIAN ASSOCIATION (Seinen-kai), Mitoshiro-cho, Kanda, a CONCERT in which Madam KENKLER and Prof. VON KOEBER will kindly assist and a number of ORCHESTRAL pieces will be performed.

Tickets - - - One Dollar.

Figure 2.2 Program of a concert by the Meiji Music Society at the Kanda Y.M.C.A.

¹⁰⁰ actually called
音楽雑誌
Ongaku zasshi,
which translates to
“Music Magazine”

The first music magazine¹⁰⁰ started publishing in September of 1890 initiated by Shikama Totsuji¹⁰¹ (1853–1928). These music magazines played a significant role in the dissemination of knowledge about Western music, which was crucial to develop an active concert life (Mori 1989). As an example, the “Musical Magazine” featured an article with the title “Concerning courtesy at music venues.”¹⁰² In this article the reader was urged to dress appropriately, to keep the aisles clear, to adhere to the seating arrangements, not to stand up during the event, not to point to other people and not to enter or leave the venue during the performance. A writer in the Japan Times suggested, that “the Japanese should discontinue the habit of taking little children on such occasion, for on Sunday their presence was manifested in a rather unpleasant manner”¹⁰³.

¹⁰¹ 四龍訥治

¹⁰² 音楽会場にお
ける礼節について
*Ongaku kaijō ni okeru
reisetsu ni tsuite*,
音楽雑誌
Ongaku Zasshi 18,
March 1882, 5–6

¹⁰³ *The Japan Times*,
December 11, 1900, 3

At the turn of the century, roughly from 1880 to 1905 the first concert series were established and Western music started to appear in public. This had to a great deal to do with the spacial infrastructure that was being made available. The Rokumeikan, opened in 1883, the hall of the Academy and the Imperial Hotel, both opened in 1890 and the hall of the Y.M.C.A, opened in 1894 provided the necessary interior spaces as well as appropriate appearance symbolizing a modern Japan. To fill these modern buildings with life, Western music was performed, and thus slowly came into the public eye.

The independence of the academy was restored in 1899 and August

Junker (1868–1944) was assigned as professor. Junker, born in a small town near Aachen in Germany, received his music education at the “Conservatorium der Musik in Coeln” under Gustav Holländer (1855–1915) and Ferdinand Hiller (1811–1855), and in Berlin with Joseph Joachim (1831–1921). In Berlin he seems to have been a member of the Berlin Philharmonic Orchestra for some time, before he went to America where he joined the Chicago Symphony Orchestra as viola player. He left Chicago, most likely motivated by the Boston art collector Ernest Fenollosa (1853–1908), who himself had taught in Tokyo from 1878 to 1890. After his arrival in Japan, Junker performed in recitals in Yokohama where his arrival was received with excitement and shortly thereafter in the hall of the Academy of Music. He started an amateur orchestra in Yokohama and a string quartet (Mehl 2014, 54–60; Suchy 1990, 202–203). The first concert consisted of two parts, a first part with solo recitals and choral works, and a second part “entirely devoted to the Orchestra whose 4 selections were all played and equally well received”.¹⁰⁴

¹⁰⁴ *The Japan Times*, November 27, 1898, 2

Table 2.4 Number of musicians per instrument of Junker’s “Choral and Orchestral Society”, around the time of the first concert in 1899. The brass section consisted of one euphonium, the percussions instruments included tambourine, cymbals, triangle and drums (Masumoto 1978, 119).

Strings				Woodwinds				Brass			Other			
Vn	Va	Vc	Cb	Fl	Ob	Cl	Bn	Hn	Tp	Tbn	Tba	Or	Pf	Prc
16	2	3	2	1	0	1	0	0	0	0	0	1	1	3

In the announcement for the fifth concert on May 2, 1919, an orchestra of 40 musicians was advertised (Masumoto 1978, 119–120). No detailed numbers per instruments were specified. In this period and under the guidance of Junker, the Academy of Music orchestra started including symphonic works to the program more regularly. The program from a concert at the hall of the Academy of Music on December 7, 1900 featured the first movement of Mendelssohn’s Symphony No. 3 in A minor, Op. 56, Bizet’s Carmen Suite No. 1 (without the Séguedille and Les Dragons d’Alcala), as well as the “the Beautiful Blue Danube Walz” by Strauss.¹⁰⁵ A similar shift to symphonic works can be observed in the concerts of the Meiji Music Society around the turn of the century. A concert announced for January 20, 1900 featured “the Andante from a Symphony in G” by Haydn (probably Symphony No. 94 in G major) amongst other orchestral pieces in a mixed program of Japanese and Western works.¹⁰⁶

¹⁰⁵ *The Japan Times*, December 11, 1900, 3

¹⁰⁶ *The Japan Times*, January 20, 1900, 3

2.2.2. Orchestras appear in the public, 1904–1914

Looking at the comments from the time around 1905, a change in perception of the concerts that were offered by the Tokyo Academy of Music can be noticed, often paired with disbelief about the rapid progress of the young Japanese musicians. August Junker, who led the orchestra during this period, commented to a German periodical that he “founded the first orchestra in Japan after 7 years” (Urach-Württemberg 1937).¹⁰⁷ The prominent British Japanologist Basil Hall Chamberlain remarked that Junker “in the brief space of three of four years, has done marvels” and that he succeeded in “producing too a respectable orchestra of forty executants” who “now occasionally give concerts at which over a thousand persons attend” (Chamberlain 1902, 341). In his diary entry for Sunday, March 19, 1905, the German physician Erwin Bälz mentions that “today’s concerto proved, in the solo as well as in the choir and orchestra performances, that progress can be observed, which was hardly conceivable before”¹⁰⁸ (Bälz 1937, 243). A program of a concert that took place on March 19, 1905 could not be found. The program of a concert roughly two month later read as follows¹⁰⁹:



Figure 2.3 Program of a concert at the auditorium of the Academy of Music from the year 1905.

The growing size of the orchestra during the early years of Junker’s tenure at the Academy of Music is reflected in a steady increase in the size of the stage of the auditorium (see Figure 3.9). Under Junker, from 1905 to 1912, two “Grand Orchestral and Choral Concerts” were held at the auditorium each year, one in spring in May or June and one at the end of the year in November or December. The programs of the concerts now showed more and more orchestral works and in many of these, the part of the program containing Japanese music had disappeared.

107 “Nach sieben Jahren gelang es mir, das erste vollständige Orchester in Japan zu gründen, das Orchester der kaiserlichen Musikakademie in Ueno.”

108 “Jedenfalls bewies das heutige Konzert durch seine Leistungen sowohl in Solis als in Chor und im Orchester, daß Fortschritte zu verzeichnen sind, die man früher kaum für möglich hielt”

109 *Deutsche Japan Post*, May 4, 1907, 7–8

**Orchestral & Choral
Concert**

OF THE
Tokyo Academy of Music,
UYENO PARK, TOKYO,
Sunday, Nov. 28th, 1909,
At 2 P.M.

PROGRAM.

1. Overture to "Iphigenie in Aulis"—
Gluck.
2. Capriccio Brillant (B minor op. 22) for
Piano with Orchestral Accompaniment
—Mendelssohn—Mrs. Kambe.
3. Eroica Symphony (No. III E Flat major
op. 55) First Movement—Beethoven.
4. Piano Solo: a. Serenade, 'Hark, Hark,
the Lark' from Shakespeare—Schubert-
Liszt. b. La Vélocité—G. Mathias—
Mrs. Kambe.
5. a. "Scene Religieuse" from the Suite:
"Les Erinnyes" for Orchestra—Masse-
net (Violoncello solo: Prof. Werkmeis-
ter). b. Gavotte—Lully (Arranged for
String Orchestra by J. Harada).
6. Ballad of a Knight and His Daughter for
Chorus and Orchestra—H. W. Parker.

Conductor: Prof. JUNKER.

Tickets:—Yen Two, to be had in Yoko-
hama at Messrs. C. Thwaites & Co. and in
Tokyo at the Imperial Hotel and at the
Hall, on the day of Concert.

Figure 2.4 Program from a concert at the Tokyo Academy of Music on November 28, 1909.

The program of a concert in 1910 stated, that the Concerto for Piano No. 5 in E flat major by Beethoven was played "with Orchestral Accompaniment" which hints at the fact that the many concerts played in the years before were probably not accompanied by the orchestra but by the piano. The soloist in this concert was Hanka Schjelderup Petzold (1862–1937). Petzold was born in Norway, and employed as a teacher at the Academy from 1910 to 1924 (Cohen 1997; Schauwecker 2007). When August Junkers tenure ended in 1912 a farewell concert was held on December 1, 1912 and was "filled to overflowing".¹¹⁰

The Army and the Navy bands were not mentioned anymore in these years in the programs of the concerts at the Academy of Music, but it can be observed, that the musicians of these groups often supplemented the Academy orchestra, as is illustrated by a review of a concert on June 9, 1912, where the Japan Times wrote, that "about 20 men of the Naval Band, who studied a few years ago in the Academy, came to help make the day a success".¹¹¹

Already in 1898, the Japan Times suggested, that public open air concerts

¹¹⁰ *The Japan Times*,
December 4, 1912, 1

¹¹¹ *The Japan Times*,
June 12, 1912, 4

Advertisements.

**Orchestral and Choral
Concert**

OF THE
Tokyo Academy of Music,
UYENO PARK, TOKYO,
Sunday, 29th May, 1910,
At 8 P.M.

PROGRAM.

1. Prelude and Fugue: Bach.
Arranged for Orchestra by J. Abert.
2. Concerto for Piano No. 5 in E flat major
Beethoven.
with Orchestral Accompaniment.
Mrs. Petzold.
3. Symphony No. 3 in A minor (Scotch) ..
Mendelssohn.
4. Songs for Soprano :
a. Der Schwan G. Schjelderup.
b. Four-leaf Clovers R. Reuter.
c. Rosenlied A. Junker.
Mrs. Petzold.
5. "Loreley" Finale for Soprano Solo
Chorus and Orchestra .. Mendelssohn.
Soprano Solo : Mrs. Petzold.

Conductor : A. Junker.

TICKETS : Yen Two—to be had in
Yokohama at Messrs. C. Thwnites &
Co., and in Tokyo at the Kyoeki-
shosha, the Imperial Hotel, and at
the Hall on the day of Concert.

Figure 2.5 Program for a concert at the hall of the Academy of Music in the year 1910.

that were “universally in vogue in Europe,” should be installed in Tokyo at cheap prices for the “greater popularization of this most noble and elevating art”.¹¹² This was realized, when the bandstand opened in Hibiya park in 1905, which gave the Army and the Navy bands a regular platform for concerts. Hibiya park was formally opened on June 1, 1903. The bandstand that was erected in the park was inaugurated on August 1, 1905. Including the opening concert on August 1, only 5 concerts took place at the bandstand in 1905, the last one on October 22. Then the season was ended and the bandstand was closed until the opening of the next season, after a number of renovations, which were necessary due to complaints of the musicians as well as the audience (see Chapter 3.1.6). From 1906 to 1911 concerts took

¹¹² *The Japan Times*, July 8, 1898, 2

place two times per month from April to November, usually including one concert by the Navy band and one by the Army band each month. Concerts were held in 1912 from April to July, but when the Emperor Meiji passed away on July 30, 1912 the park was closed and concerts did not take place for one year (Tanimura 2010).

A concert review from August of 1913 gives an insight into the amounts of people that came to these concerts. It was described that “at least 5,000 people, mostly of the younger generation, assembled to hear the concert at the Hibiya Park bandstand last night”¹¹³. Compared to the hall of the Academy in which about 500 people found place, this venue offered the possibility to reach much larger audiences, and when also considering the frequency of the concerts, it must be assumed that for many residents of Tokyo, the open-air concerts in Hibiya Park represented the first chance to experience a concert of Western music.

¹¹³ *The Japan Times*, August 24, 1913, 4

HIBIYA CONCERT.—This afternoon from 3 o'clock the naval band from Yokosuka under Bandmaster Setoguchi will play at Hibiya bandstand. The programme is as follows :—

- 1 Marsch, “Kalgoorie”—Hume.
- 2 Ouvertüre, “Le Traviata”—Verdi.
- 3 Walzer, “Aufzorderung zum Tanz”—Weber.
- 4 Fantasie, “Die Hugenotten”—Meijerberg.
- 5 Potpourri, “In heiterer Gesellschaft”—Winterberg.
- 6 Arie und Chor, “Ein Nachtlager in Granada”—Krentzer.
- 7 Chor aus der Schöpfung—Haydn.
- 8 Grosse Fantasie, “Lucia von Lammermoor”—Donizetti.

Figure 2.6 Program for a concert at the Hibiya park bandstand by the Navy band in the year 1909.

It is therefore interesting to see, what music was played, by whom and in what configuration. The foreign teachers, who had been directing the Japanese military bands and the end of the Meiji era had left Japan, and the concerts in Hibiya were led by Japanese conductors. The conductor of the opening concert was Nagai Kenshi¹¹⁴ (1865–1940), a student of Charles Leroux. The concert opened with a march composed by Nagai, followed by a march by John Philip Sousa, and the overture to William Tell by Gioachino Rossini, among other pieces. From May 24, 1908, concerts of the Navy band were given under the direction of Setoguchi Tōkichi¹¹⁵ (1868–1941), a native of Satsuma, who joined the Second Naval Band after moving to Yokohama as a musician (McClimon 2016). His Battleship March, composed in 1900 became highly popular and is still one of the most famous marches in

¹¹⁴ 永井建子

¹¹⁵ 瀬戸口藤吉

Japan today. The mix of Euro-American marches, own compositions, opera music as well as popular songs, shown in the example above characterized the programs of the early years of the concerts at the Hibiya bandstand. But starting from July 13, 1912, the program was usually divided into two parts, with the brass band playing in the first part, while the second part was now provided by an orchestra (Tanimura 2010).

In this period, the situation regarding the available venues for organising concerts improved significantly with the opening of the Yūroku-za¹¹⁶ theatre in 1908 and the Imperial Theatre¹¹⁷ in 1911 (see Section 3.1.7). These two theatres, modelled after European horseshoe-shaped theatres, fulfilled the requirements for performances of Western music in this period, both in terms of necessary facilities and in terms of representative appeal. The Yūroku-za theatre, opened on December 1, 1908, was the first in Tokyo to provide the theatregoers with the chance of “witnessing a western play, of listening to a western orchestra, and of sitting in a western theatre all at the same time”¹¹⁸ Performances in this period at the Yūroku-za featured a mixed program of Japanese plays and Western plays. Two years later, the Imperial Theatre was opened with an opening ceremony for selected guests on March 2, 1911.¹¹⁹ An orchestra “consisting of brass and string bands” and a music school attached to the Imperial Theatre were started, under the supervision of the teachers August Junker and Heinrich Werkmeister (1883–1936) from the Academy of Music.¹²⁰ The Imperial Theatre became the home for a number of concerts by the Tokyo Philharmonic Society.

The Tokyo Philharmonic Society¹²¹ was founded in 1910, and gave an inauguration concert on April 3, 1910 at the hall of the Academy of Music. The society was initiated by the above mentioned Heinrich Werkmeister, a cellist who had been a teacher at the Academy of Music since 1907 and Suzuki Yonejirō (1868–1940), who had graduated from the Academy in 1888 and in 1907 had founded the Music College of the East¹²². The society was established under the patronage of Sir Claude MacDonald (1852–1915), the first British ambassador to Japan from 1900 to 1912 (Nish 2004), Count Ōkuma Shigenobu¹²³ (1838–1922), a politician and two times Prime Minister of Japan who also was the founder of the Waseda University in 1882, and Baron Iwasaki Koyata¹²⁴ (1879–1945), a Cambridge University graduate and nephew of the founder of the Mitsubishi corporation Iwasaki Yatarō¹²⁵ (1835–1885).

With the help of these powerful patrons, the Philharmonic Society was able to organize concerts using all prominent venues available at time, including the ballroom of the Imperial Hotel, the Yūroku-za, the hall of the Academy of Music and the Imperial Theatre. Three concerts were held in 1910, one at the hall of the Academy and two at the Yūroku-za theatre, with a

¹¹⁶ 有楽座

¹¹⁷ 帝国劇場

¹¹⁸ *The Japan Times*,
December 22, 1908, 3

¹¹⁹ *The Japan Times*,
March 2, 1911, 3

¹²⁰ *The Japan Times*,
July 17, 1910, 6

¹²¹ 東京フィル
ハーモニー会
Tokyo firuhāmonikai

¹²² 東洋音楽学校
Tōyō ongaku gakkō

¹²³ 大隈重信

¹²⁴ 岩崎小弥太

¹²⁵ 岩崎弥太郎

program of solo performances and small chamber ensembles. The four concerts in 1911 consisted of solo performances and music for chamber music ensembles, but Suzuki Yonejirō and Iwasaki Koyata started conversations about creating an orchestra, in order to spread orchestral music and to raise musicians capable of playing in an orchestra. The concerts of the Tokyo Philharmonic in 1912 and 1913 continued to be chamber music concerts, until in November of 1913 a Grand Concert was announced for November 27, featuring an orchestra for the first time. The program was as follows:

The Grand Concert
of the
Tokyo Philharmonic Society
will be given at the
IMPERIAL THEATRE
TEIKOKU GEKIJŌ)
Thursday, 27th November 1913.
At 7.30 P. M.
—x—

PROGRAMME.

I.—ORCHESTRA
Overture from "Alfonso and Estrella" Schubert

—ALTO SOLI
a) *Von ewiger Liebe* Brahms
b) *Serenade* Thome
Miss NAKAJIMA.

III.—TRIO
in G minor (1, 2 and 3 movements) Haydn
Mrs. ANDO. Mr. SCHOLZ
& Mrs. WERKMEISTER.

IV.—VIOLONCELLO WITH
ORCHESTRA
Concert in A minor (2 and 3 movements) Davidoff
Mr. WERKMEISTER.

V.—PIANO WITH ORCHESTRA
Concert in F minor Weber
Mr. SCHOLZ.

VI.—VOCAL SOLI (BASS)
a) *Cavaletta from "Vespri Siciliani"* Verdi
b) *Cavatina from "Ernani"* Verdi
Mr. HIGUCHI.

VII.—VIOLIN SOLO
Prælude and Gavotte in E major Bach
Mr. KRON.

VIII.—ORCHESTRA
Introduction for the 3rd Act from "Lohengrin" Wagner

Figure 2.7 Program for a concert at the Imperial Theatre by the Tokyo Philharmonic Society.

As mentioned before, concerts were mostly paused when the Emperor Meiji passed away on July 30, and a period of mourning was issued by the Imperial Household for one year.¹²⁶ The December 1912 farewell concert

¹²⁶ *The Japan Times*, July 31, 1912, 4

for August Junker and concerts by the Academy of Music and by the Philharmonic Society in the hall of the Academy in February of 1913 seem to have taken place, so it seems this period of mourning mostly affected the park concerts.

¹²⁷ 明治音楽会
Meiji ongakukai

¹²⁸ *The Japan Times*,
November 11, 1913, 4

¹²⁹ *The Japan Times*,
November 21, 1913, 1

In 1913, the Meiji Orchestral Society¹²⁷ announced a series of concerts, “in response to numerous requests from foreign and Japanese music lovers of Tokyo”.¹²⁸ Guglielmo Wilhelm Dubravcic (1869–1925), the successor of Franz Eckert for the position of the teacher of the court musicians, which he trained from 1900 to 1925 was appointed conductor. The first concert of the 1913–14 season was given at the ballroom of the Imperial Hotel, in front of “some 500 people”.¹²⁹

In the following years, the dissemination of Western music by means of the mass media had a big influence. While this really began to have a larger effect from around 1927, record production started in this period. According to Anazawa (2014, 7), the Edison wax cylinder phonograph was introduced and marketed in Japan as early as 1896. The first records pressed in Japan were made by the Japan-American Phonograph Manufacturing Company in 1909 and in 1910, the Japan Phonograph Trading (today’s Nippon Columbia) released the first Gramophones to be produced in Japan (Anazawa 2014, 8).

2.2.3. Joining efforts, 1914–1923

The period from 1914 to 1923, roughly coinciding with the Taishō period¹³⁰, is marked by a number of attempts to form a complete orchestra, and for the first time features concerts of whole symphonies and larger works in the programs. Moreover, with the opening of the Nanki Auditorium, this period also witnessed the first public concert hall outside the academic context. It is also characterized by a large number of world-famous international artists that visited Japan and gave performances that helped to increase the interest in Western music. In this period, these concerts consisted mainly of solo recitals, while in the period after 1923, we find a number of these world-class artists performing as soloists with Japanese orchestras. In May 1918, the *Japan Times* noted a “Record Musical Season in Tokyo: The musical season this year has broken previous records in the number of concerts given in Tokyo. Over thirty concerts have been given, most of them successful”.¹³¹

The period roughly coincides with the tenure at the Academy of Music of Gustav Kron (1874–?),¹³² who taught at the Academy from 1913 to 1925 and is credited mostly for having premiered a number of symphonic works. Kron, born in Braunschweig, was an established solo performer in Germany before coming to Japan and was recommended for the position at the Aca-

¹³⁰ 大正時代
Taishō jidai,
from 1912 to 1926

¹³¹ *The Japan Times*,
May 3, 1918

¹³² according
to the municipal
archives of the city
of Braunschweig,
Kron has moved
to Switzerland in
1939, Ref. Nr. E99:73

demy by Arthur Nikisch (1855–1922) (Suchy 1992, 213). Kron described the orchestra of the Academy during his tenure in an article later published in Germany, saying that “the orchestra is largely composed of Japanese professors from the academy [...] and from advanced students; missing wind instruments were supplemented from the naval band”¹³³ (Kron 1929).

133 “Das Orchester setzt sich zum größten Teil zusammen von jap. Professoren der Akademie (sehr gute Konzertmeisterin ist eine Japanerin, die Schülerin von Joachim gewesen war) von fortgeschrittenen Schülern; fehlende Bläser wurden von der Marinekapelle ergänzt”

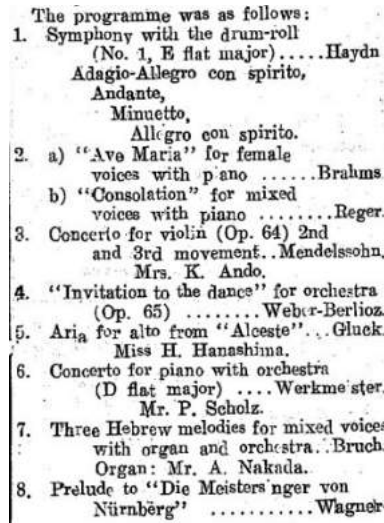


Figure 2.8 Program for a concert at the hall of the Academy of Music, on May 26, 1917 under Gustav Kron.

Kron is recognised for a number of Japanese premiere performances of orchestral works, including Beethoven’s Violin Concerto (at least the first movement) and the Tokyo premiere of the Symphony No. 9.

Department stores opening in this period were one symbol of the “Taishō culture” and these department stores hired bands which contributed to the development of the concert life in the city. The Mitsukoshi boys band¹³⁴, which was formed in 1909, is particularly noteworthy in this regard. The Echigoya, that existed since the Edo period (from 1673) was renamed by Mitsui Takatoshi¹³⁵ (1622–1694) to Mitsukoshi Department Store. When it opened its new building at Nihonbashi¹³⁶ bridge in 1914, it was pointed out, that “the greatest department store in the East is the Mitsukoshi. It is the Harrods of Tokyo”¹³⁷. In the same article, the juvenile band was advertised: “A feature of the Mitsukoshi is its Juvenile Brass Band composed of twenty-five boys. The young artists are as much at home with classical music as with the latest comic melodies.” Hisamatsu Kōtarō of the Navy band became the instructor, and boys from the age of 11 to 15 participated. Already in April of the same year, the band gave the first concert. In the beginning, the

134 三越少年音楽隊 Mitsukoshi shōnen ongakutai

135 三井高利

136 日本橋

137 *The Japan Times*, September 27, 1914, 8

band consisted of 15 members playing wind instruments. Reactions were favourable, and therefore they soon did not only play in the department store, but also in concerts, for example with the Army and then Navy band. From February of 1913, a string department was started (Saegusa 2004). From October 1913 the Mitsukoshi boys band also appeared regularly at concerts in Hibiya park and thus became a permanent fourth institution of the concert life in Tokyo, besides the court orchestra, the Army and the Navy bands and the orchestra of the Academy of Music.

Up to this point, the orchestras were conducted by foreign conductors and played mostly works by foreign composers. Both changed with the return of Yamada Kōsaku, who came back from studying abroad in Berlin in 1914. Yamada Kōsaku¹³⁸ (1886–1965) born in Tokyo on June 9, 1886, studied at the Tokyo Academy of Music with Heinrich Werkmeister (1883–1936) (Gotō 2016). He continued his studies abroad at the “Staatliche Akademische Hochschule für Musik” in Berlin from April 1910 to January 18, 1913 under Leopold Carl Wolff. His diploma, issued on February 1, 1913 states composition as the main subject and history of music, piano, elementary singing and conducting practice as minor subjects.¹³⁹

The first concert in Tokyo, that featured Yamada after his return to Japan was the fourteenth concert of the Tokyo Philharmonic Society, which took place on December 6, 1914 at the Imperial Theatre. It was a noteworthy event in many respects. Yamada had managed to bring together musicians from the court orchestra, the Army and the Navy bands, the Mitsukoshi boys band and the Academy of Music, which in total provided him with an orchestra of 80 musicians. All musicians in the orchestra were Japanese, a feature that was still unique at the time, and the program featured a symphony of Yamada himself, his “Symphonie in F-Dur ‘Triumph and Peace’”¹⁴⁰ completed in Germany in 1912.

As a result of the success of this concert, and with the financial support of Iwasaki Koyata, the orchestral department of the Tokyo Philharmonic Society¹⁴¹ was created, starting with approximately 40 members, and it was decided to give one concert per month (Tōkyō Fīruhāmonī kokyō gakudan 1991). The first concert took place at the Imperial Theatre on Sunday, May 23, 1915 and was announced as “Public Rehearsal of Tokyo Philharmonic Orchestra.”¹⁴² Another concert took place on June 27, 1915 at the Imperial Theatre. Concerts took place again in July, and from September to December four more concerts followed, but the concert in December, which was the sixth one in total, was the last one.

The opening of the Nanki Auditorium¹⁴³ in October of 1918, represents a hitherto neglected event in the history of Western music in Japan before the Second World War. Tokugawa Yorisada intended to open a concert hall

138 山田耕筈、
or 山田耕作
(he changed the
second Kanji of his
first name to the latter
one, meaning “make,
produce or create”)

139 Universität
der Künste Berlin,
Universitätsarchiv,
Bestand 1,
Nr. 617, Blatt 6

140 かちどきと平和
Kachidoki to heiwa

141 東京フィルハー
モニー会管弦楽部
Tōkyō fīruhāmonīkai
kangengakubu

142 公開試演
Kōkai shien,
Yomiuri Shimbun
May 24, 1915, M.E. 5

143 南葵楽堂
Nanki gakudō

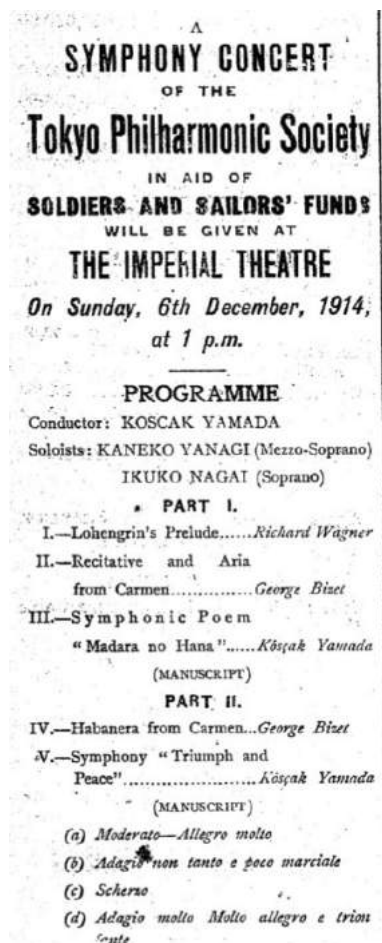


Figure 2.9 Program for a concert of the Tokyo Philharmonic Society at the Imperial Theatre on December 6, 1914.

144 真面目な少数の人
Majimena shōsū no
hito

for a small group of serious listeners¹⁴⁴ who would listen to serious music (see Section 3.1.8). Until the destruction of the building in the Kantō earthquake, at least 25 orchestral concerts were held by orchestras consisting of musicians from the Academy of Music and from the Yokohama Orchestral Society (Tō bungakukai 1957).

The events surrounding the Russian Revolution made many high-ranking Russian musicians leave their country. Many of them were heading for America and stopped over in Tokyo on their way. In the case of Sergei Prokofiev (1891–1953), he felt that the opportunities for a flourishing career as a musician in Russia declined and hoped for better conditions in America (Prokofiev 1960, 49). Travelling to the United States he played two

concerts at the Imperial Theatre, on July 6 and 7, 1918. In his autobiography, he mentioned:

I was given the Imperial Theatre in Tokyo for my concerts. The Japanese did not understand much about European music, but they listened quietly and attentively and applauded the technical passages. The audiences, however, were small and I earned very few (Prokofiev 1960, 49).

¹⁴⁵ *The Japan Times & Mail*, January 26, 1921, 1

A totally different situation awaited “the greatest living violinist”¹⁴⁵ Mischa Elman (1891–1967), who visited Tokyo in 1921. He gave a series of concerts on five consecutive days starting on Wednesday, February 16, 1921 at the Imperial Theatre. Concerning the first of these concerts, the Japan Times wrote, that “the warmth of reception accorded him indicated an attendance highly sensitized in the moods and fancies of music”.¹⁴⁶ Efreim Zimbalist (1889–1985) gave his first concert in Tokyo on May 1, 1922 and visited Japan many times after this first concert.

¹⁴⁶ *The Japan Times & Mail*, February 17, 1921, 1

These musicians, were brought to Japan by Avary Strok. According to Roy Malan, the biographer of Efreim Zimbalist, Strok was “by any account a colorful character. A Russian Jew who spoke ten languages and was barely understood in any of them.” He apparently knew Zimbalist from the opera in St. Petersburg and “before long, given his gambler’s instincts and with the growing clamor in the East for exposure to Western arts, Strok became a powerful impresario” (Malan 2004, 183).

The Imperial Hotel had installed a permanent orchestra for entertainment around 1922, and after this was established, the possibility to form a professional symphony orchestra was discussed in a meeting at the Imperial Hotel in January of 1923. Some of the members of this meeting had the opinion that “the time for the formation of a Symphony Orchestra in Tokyo was hardly ripe, others maintained that the attempt should be made because a conductor had appeared in Tokyo in the person of Mr. Gershkovitch”¹⁴⁷.

¹⁴⁷ *The Japan Times & Mail*, April 17, 1923, 4

The Director of the Imperial Hotel at the time, Mr. Yamaguchi consented to use all musicians from the orchestra of the hotel, and so other professional musicians had to be found and could eventually be recruited from the Academy of Music, the Imperial Theatre orchestra, the Hatano Orchestra, and the Grand Hotel in Yokohama. Rehearsals started in March of 1923 at the Imperial Hotel and a new orchestra, called the Tokyo Symphony Orchestra¹⁴⁸ started giving concerts at the ballroom of the Imperial Hotel, the first one on April 12, 1923. In the Japan Times, this concert was praised as a groundbreaking event, in which “Tokyo music lovers will have their first opportunity of hearing in Japan a full symphony orchestra led by a highly trained, professional symphony conductor”.¹⁴⁹

¹⁴⁸ the *Asahi Shimbun* uses both 東京シンフォニー管弦団 and 東京シンフォニーオーケストラ, *Asahi Shimbun*, April 15, 1923, 10

¹⁴⁹ *The Japan Times*, March 24, 1923, 1



Figure 2.10 Program for the first concert of the Tokyo Symphony Orchestra, which took place on April 5, 1923, at the banquet hall of the Imperial Hotel.

This highly professional conductor was Jacques Gershkovitch (1884–1953), born in Irkutsk, Siberia, who was another Russians emigré that left Russia after the Revolution, and found the opportunity to perform in Japan. Gershkovitch had studied under Nikolai Rimsky-Korsakov (1844–1908) at the Petrograd conservatory and had continued his studies in Berlin under Arthur Nikisch (1855–1922) (Slonimsky et al. 1958, 552). He came to Japan “most enthusiastic about Japan’s musical development”.¹⁵⁰ The first concert of this new orchestra was repeated a week later, on April 22, at the Imperial Theatre. The orchestra at these first concerts consisted of the following musicians:

¹⁵⁰ *The Japan Times & Mail*, March 31, 1923

Table 2.5 Composition of the orchestra, at the concert of the Tokyo Symphony orchestra at the Imperial Hotel.

Strings					Woodwinds				Brass			Other			
Vn1	Vn2	Va	Vc	Cb	Fl	Ob	Cl	Bn	Hn	Tp	Tbn	Tba	Hp	Tmp	Prc
7	7	2	6	2	3	2	2	2	4	2	3		1	2	

The undertaking was supported financially by Ōkura Kishichirō¹⁵¹ (1882–1963) with the support of Tokugawa Yorisada¹⁵² (1892–1954) and others. Despite the support of these well known persons, the orchestra was struggling financially from the start. It was stated, that “the wealthy classes

¹⁵¹ 大倉喜七郎

¹⁵² 徳川頼貞

[...] [in Europe] contribute generously as patrons, considering that a Symphony Orchestra or an Opera Company is one of the best advertising agents for the city and one of the most striking influence on the cultural and educational life of the city. Tokyo, if it hopes to take its rightful place in musical circles, must do likewise”.¹⁵³ A third concert took place on May 17. The program of this concert included the Unfinished Symphony by Schubert, the Coriolan overture by Beethoven, Tchaikovsky’s *Elegie* and the *Capriccio Espagnol* by Rimsky-Korsakov.¹⁵⁴ Despite the financial problems, the orchestra was increased to 60 musicians,¹⁵⁵ but notwithstanding all these efforts, it seemed that those who questioned Tokyo’s preparedness for a symphony orchestra should be proven right. The Japan Times urged its readers to support the orchestra, by writing that “despite poor attendance at its past performances, the organization is not discouraged and is making its last bid for popular favor tomorrow evening at the Imperial Hotel, the decision rest with the music lovers of this city”.¹⁵⁶ A fifth concert (counting the second performance of the first concert at the Imperial Theatre) took place at the hall of the Y.M.C.A in Kanda “at popular prices”,¹⁵⁷ but this seems to have been the last concert. It is unclear if a fall concert season was planned, but on September 1, 1923, the Kantō earthquake caused the final dissolution of this orchestra, after Gershkovitch had departed to the United States.

The Kantō earthquake was a devastating disaster, and it also affected the concert life in the city. Many musicians left the country or sought employment in the Kansai region. Gershkovitch, who had invested much energy in starting the Tokyo Symphony Orchestra, left Japan for the United States and established himself in Portland, Oregon where he became permanent conductor of the Portland Junior Symphony Orchestra.¹⁵⁸ The Austrian musician Joseph Laska was scheduled to arrive in Tokyo on the day of the earthquake, but changed his route and instead became a substantial part of forming the first regular concert series in the Kansai region. With the earthquake, many of the available venues in Tokyo disappeared. The Yūroku-za theatre, the Nanki Auditorium, the Kanda YMCA and the Hibiya park bandstand were destroyed and not rebuilt. A new Hibiya park bandstand had already been completed at a new location in the park, and was used from that point on. The Imperial Theatre was quickly renovated but the interior was changed significantly, and not used as concert hall anymore. The wooden hall of the Academy of Music survived the earthquake almost undamaged, the just completed Imperial Hotel designed by Frank Lloyd Wright and the Hōchi Shinbun auditorium survived as well and were therefore the available locations for concerts just after the earthquake.

¹⁵³ *The Japan Times & Mail*, April 20, 1923, 1

¹⁵⁴ *The Japan Times & Mail*, May 8, 1923 1

¹⁵⁵ *The Japan Times & Mail*, May 15, 1923, 8

¹⁵⁶ *The Japan Times & Mail*, May 16, 1923, 4

¹⁵⁷ *The Japan Times & Mail*, May 23, 1923, 8

¹⁵⁸ Gershkovitch is mentioned at the website of the Portland Youth Philharmonic, accessed April 16, 2022, <https://portlandyouthphil.org/about/>

2.2.4. Breakthrough years, 1923–1937

After the devastating earthquake, the number of available concert venues was, of course, considerably reduced. In addition, a number of international musicians such as Jaques Gershkovitch left Japan to continue their travels to the United States. Others sought employment in the Kansai region (see page 67). At that time, the new bandstand in Hibiya park, which had survived the earthquake contrary to the first one, was an important place for the slowly recovering musical life. On April 12, 1924 it was announced, that the first concert since the earthquake would be given at the Hibiya bandstand the following day, and that regular concerts would be resumed.¹⁵⁹ However, only about two years after the earthquake from 1925, a series of events took place that brought the symphonic concert life in Tokyo to a new level. New rooms, built in response to the earthquake's repercussions, played an important role in this context.

An equally large influence had the beginning of the radio broadcasting in Tokyo. It was announced that transmissions would begin on March 1, 1925, but it took some time for it to be properly implemented. The newspapers gave recommendations on how people should locate their receivers at home and where to place their speakers for the best possible listening experience.¹⁶⁰ The number of radio listeners grew rapidly from approximately 2,000 in 1925 to approximately 6 million in 1941 (Borris 1967, 44). While the new medium quickly established itself, there was great concern within the recording industry that record sales would collapse, but the opposite was the case, and “contrary to expectations, the sale of records increased due to the public interest aroused by Western and Japanese music broadcast over the ether.”¹⁶¹ As already described, records were already produced in Japan from 1909, but it was from around 1927, that phonograph records were produced on a larger scale. It was pointed out, that “the influence that the phonograph record had on ‘Western Music Enlightenment’ seems to have been immeasurably large.”¹⁶² (Kurata 1976, 116). Western classical music in particular gained in popularity and the most popular recordings achieved remarkable sales figures. A recording of Beethoven's Symphony No. 5 under Toscanini was sold more than 50,000 times in the year 1939 (Mehl 2014, 128), and already in 1937, Japan was the largest market for Western classical music worldwide (Borris 1967, 203).

About the same time as the start of radio broadcasting in Tokyo, a series of influential concerts took place on four consecutive days from 26 to 29 April 1925 in the newly opened Kabuki-za. The great significance of this concert series stems from the fact that although a number of outstanding Western musicians had given concerts in Japan up to that point, a Japan-

¹⁵⁹ *The Japan Times*, April 12, 1924, 1

¹⁶⁰ *The Japan Times & Mail*, March 8, 1925, 9

¹⁶¹ *The Japan Times & Mail*, December 11, 1933, 2

¹⁶² 洋楽開眼に果たしたレコードの役割は、計り知れないほど大きいといえそうだ

ese audience had not yet had the opportunity to listen to symphonic works performed by a professional guest orchestra. Yamada Kōsaku expressed the hope that these concerts, with the participation of professional Russian musicians, would have a stimulating effect on orchestral musicians in Japan (see Appendix E.3.¹⁶³). When the Russian musicians, including members of the “Moskow Marynsky Theatre, the Leningrad Symphony, the Kieff Orchestra and others” arrived in Tokyo, they were greeted by a large party including musicians, actors and actresses, who then escorted these musicians to the Kabuki-za.¹⁶⁴ The concerts were on the Japanese side hosted by the Japan Philharmonic Association Orchestra¹⁶⁵, which was organized by Yamada in April 1924. When Konoe Hidemaro returned from studying in Berlin, he also joined this organization. There were 38 Japanese musicians and about 35 musicians from Russia, in total about 70 members in this group. The reactions were as exuberant as Yamada had hoped:

Never before has a Tokyo audience been offered the musical feast that was given it last night at the Kabuki theater when the Russo-Japanese Symphonic Orchestra, under the conductorship of Mr. Koscak Yamada and Mr. Hidemaro Konoye, presented Beethoven, Goldmark, Rimsky-Korsakoff and Koscak Yamada with an assembly of seventy musical artists of unusual merit.¹⁶⁶

After the four concerts at the Kabuki-za, the orchestra performed in 11 others cities in Japan, a total of 27 times. The concerts were financially supported by Ōtani Takejiro from the Shōchiku theatre company. Yamada and Konoe both conducted. After this tour, the orchestra returned to Tokyo for two more concert at the Hibiya park bandstand on May 15 and 17.¹⁶⁷

Konoe Hidemaro¹⁶⁸ (1898–1973) was one of the most important promoters of symphonic music in the pre-war period in Tokyo. Hidemaro and his brother Fumimaro were descendants of prince Konoe Atsumaro from the Fujiwara clan, an influential family in the history of Japan. While Fumimaro became a politician and served as prime minister several times, Hidemaro decided to continue the family tradition that had always produced musicians.¹⁶⁹ Konoe first came into contact with Western classical music after his father brought home a gramophone from a journey to Germany. During his studies in Germany he was especially focussed on instrumentation, supported by Karl Muck, in whose house he was a guest often, and he also made a number of excursions to Leipzig to see concerts of the Gewandhausorchester, which at the time was under the direction of Wilhelm Furtwängler (1886–1954).¹⁷⁰ The connection between Yamada Kōsaku and Konoe

¹⁶³ *Yomiuri Shimbun*, April 23, 1925, M.E., 7

¹⁶⁴ *The Japan Times*, April 21, 1925, 1

¹⁶⁵ 日本交響楽協会管弦楽団, *Nippon kōkyōgaku kyōkai kangengakudan*

¹⁶⁶ *The Japan Times*, April 27, 1925, 1

¹⁶⁷ *The Japan Times*, May 15, 1925, 2

¹⁶⁸ 近衛秀麿, in the English media of the time spelled “Konoye”

¹⁶⁹ *Leipziger Neueste Nachrichten*, January 1, 1941, 5 (see Appendix E.4)

¹⁷⁰ *Königsberger Allgemeine Zeitung*, 23. April, 1942, BArch, R 64-IV 82, Blatt 202

Hidemaro began in 1916 when Konoe took composition lessons with Yamada. Konoe had gained experience conducting the orchestra of the Tokyo Imperial University¹⁷¹ and was on tour with this orchestra in northern Japan in 1922 (Ota 1964). In 1923 he went abroad to study in Berlin at the Sternsche Konservatorium. On January 18, 1924 he succeeded to conducted the Berlin Philharmonic Orchestra with his own works (Mehl 2014, 154).

The short history of the Japan Symphony Association ended in October 1926, “due to an altercation arising over the loss of ¥ 5,400 from the Association’s treasury”.¹⁷² Konoe resigned, took 40 musicians with him and formed a new orchestra called the New Symphony Orchestra.¹⁷³ Apart from the musicians that left the Japan Symphony Association together with Konoe, eight new members joined the new orchestra.¹⁷⁴ A series of subscription concerts taking place twice a month started in February of the next year. The program of these subscription concerts now started to featured three complete symphonic works. The program of the first concert at the Nihon Seinenkan¹⁷⁵ consisted of Mendelssohn’s concert overture *The Hebrides*, Op. 26, Mozart’s *Idomeneo*, ballet music, K. 367, and Schubert’s *Symphony No. 7 in C major* “the Great”¹⁷⁶.

171 東京帝國大學
Tōkyō teikoku daigaku,
today’s University of
Tokyo

172 *The Japan Times
& Mail*, September 9,
1926, 1

173 新交響楽団
Shin kōkyō gakudan,
abbreviated 新響
Shinkyō

174 *The Japan Times*,
October 6, 1926

175 日本青年館 at the
time in the English
media referred to as
Sei Nen Kwan

176 *The Japan Times
& Mail*, February 22,
1927, 3



Figure 2.11 Program of a concert of the New Symphony Orchestra featuring Artur Rubinstein as the soloist.

In the following years until the second half of the 1930s, several world-class musicians visited Japan and performed with Japanese orchestras. Figure 2.11 shows the program of a concert in 1935 with Artur Rubinstein (1887–1982) as the soloist, and Konoe Hidemaro as the conductor. The concert took place at the Hibiya Public Hall, which had been opened in 1929 (see Section 3.2.4). In his autobiography Rubinstein mentioned: “The orchestra was made up entirely of Japanese musicians with the exception of a German concertmaster. It was not of the very first rank but could stand comparison with quite a few provincial orchestras I had played with. The Vis-

count [Konoe] proved to be an expert conductor” (Rubinstein 1980, 367). Efrem Zimbalist, who had first come to Japan for a series of solo recitals in 1922 was now featured in a concert of the New Symphony Orchestra, again conducted by Konoe Hidemaro, which featured Mozart’s Violin concerto in A Major and Mendelssohn’s Violin Concerto in E minor, among other pieces.¹⁷⁷ Wilhelm Kempff (1895–1991) came to Japan for a series of concerts in 1936. He played Beethoven’s Piano Concerto No. 4 and Mozart’s Piano Concerto No. 21, KV. 467 with the New Symphony Orchestra under Kōichi Kishi (1909–1937). Upon his arrival at Yokohama harbor, he was greeted by a crowd of people familiar with his music through the study of recordings (Linsenmeyer 2006, 67).

Sparked by these events, a large number of orchestras was established in the late 1920s and early 1930s. The People’s Symphony Orchestra¹⁷⁸ was started by Komatsu Heigorō¹⁷⁹ (1897–1953). The first concert took place on February 19, 1928 at the Nihon Seinenkan.¹⁸⁰ It seems, that he later relocated to the city of Sendai, as in 1934, the establishment of the Sendai Symphony orchestra was announced, with Komastu Heigoro conducting.¹⁸¹ Another orchestra, which started giving concerts in 1928, was called Tokyo Symphony Orchestra¹⁸². This orchestra was organized by Uchida Gen¹⁸³, the first concert took place at Nihon Seinenkan on April 1.¹⁸⁴ In 1931 Klaus Pringsheim was employed as a teacher at the Music Academy. During his tenure, a number of works were premiered in Japan, including Mahler’s Symphonies 2,3,5,6 and 7 (Hayasaki 2011, 256). From around the 1930s the music societies of the major universities, which had been set up starting around 1900, now started to give orchestra concerts. The Waseda University orchestra was praised as “one of the best student’s orchestra in Tokyo”¹⁸⁵. These concerts most frequently took place at the Nihon Seinenkan. Looking at the number of concerts which took place at the Nihon Seinenkan in the late 1920s and 1930s, it would be fair to call this era the “Nihon Seinenkan Era”. In September of 1932, the New Symphony Orchestra moved its regular concerts from the Nihon Seinenkan to the Hibiya Public Hall. The motivation seems to have been the larger capacity and the more central location in Hibiya park (see Section 3.2.4).

While the historical considerations of symphonic music in Japan often focused very much on activities in Tokyo, some works have been completed in recent years that point out the importance of the developments in the Kansai region. Therefore, a short side note on the case of the Takarazuka Symphony Orchestra in the Kansai region will be provided, as these events are linked to those in Tokyo and fall in the period of time presented in this section. The development of the Takarazuka Symphony Orchestra and the involvement of Joseph Laska (1886–1964) have been described by Negishi

177 *The Japan Times & Mail*, May 24, 1935, 3

178 国民交響楽団
Kokumin kōkyō gakudan

179 小松平五郎

180 *The Japan Times & Mail*, February 13, 1928, 2

181 *The Japan Times*, October 15, 1934, 4

182 東京シンフォニー・オーケストラ

183 内田元

184 *The Japan Times & Mail*, January 28, 1928, 3

185 *The Japan Times & Mail*, January 20, 1931, 6

(2014, 49–58). Laska, born in Linz, came to Japan in 1923. He had a major influence on the development of symphonic music in the Kansai region, and this fact is also related to the Great Kantō earthquake. Laska was intending to take on a vocation in Tokyo, but but this never materialized, because the Kantō earthquake struck shortly before his arrival. For this reason he changed his plans and travelled on to the Kansai region where he was offered a job as a piano teacher Negishi (2014, 33). Shortly after he put most of his efforts on the establishment of a professional symphony orchestra. A first Takarazuka Symphony concert¹⁸⁶ took place on February 8, 1924. Another interesting view was presented by Ueno (2013). Although it is frequently mentioned that Yamada Kōsaku “founded the first philharmonic orchestra in Tokyo and introduced regular subscription concerts.” (Gotō 2016), the story of the Takarazuka Symphony orchestra shows that a comparable orchestra was formed around the same time in the Kansai region (see also Tokita 2012, 423).

As this chapter has shown, things fell into place after the Kantō earthquake. The mass media stimulated each other and contributed to making Western music known. Record sales and Western music on the radio increased the popularity of the music performed in the public halls and thus stimulated the establishment of the concert life in the city. The situation after the earthquake had created the need for new performance venues. These new venues provided the spatial infrastructure for the growing concert life. This period brought forth a number of public halls, such as the Nihon Seinenkan and the Hibiya Public Hall. These were modelled after the modern auditorium buildings that were in fashion at the time in the United States, designed for the new age of mass media and amplified sound (see Chapter 5).

2.2.5. Symphony orchestras in wartime, 1937–1945

In the late 1930s and early 1940s, Tokyo had four larger symphony orchestras. As the names of these orchestras were changed in these years to conform to the political direction of the new organisation, they will be listed once for an overview before describing their history in the following. The four orchestras were:

1. The New Symphony Orchestra, directed most of the time by Joseph Rosenstock, which played mostly at the Hibiya Public Hall. From 1942, the name was changed to Nippon Symphony Orchestra.
2. The Chūō Symphony Orchestra, directed by Manfred Gurlitt, which played most concerts at the Hibiya Public Hall, but also at the Kabuki-

186 寶塚シンフォニー
演奏会
(in a pamphlet announcing the concert,
the Kanji 寶塚 were
used, not the later
known 宝塚)

za. The name was later changed to Tokyo Symphony Orchestra.

3. The Shōchiku Symphony Orchestra, under the direction of August Junker, which played at the Tokyo Gekijō and the Kyoritsu Hall. The name was later changed to Dai-Tōa Symphony Orchestra.
4. The Nippon Gekijō Symphony orchestra, under the direction of Joseph Rosenstock, which gave most concerts at the Nippon Gekijō. The name was later changed to Tōhō Symphony Orchestra.

The symphonic concert life in Tokyo in the late 1930s and early 1940s developed under the influence of the increasingly ultra-nationalist and totalitarian political climate and the growing war efforts of Japan. After Japan invaded mainland China at the end of 1937 and conquered Shanghai and the Chinese capital Nanjing, Japan's appeal as a place for visiting artists essentially ceased to exist:

The present Oriental conflict has naturally restricted import commodities, and this has effected a complete ban on visiting foreign artists. The days like those when the late Chaliapin jammed the spacious Hibiya Hall are over for a while, at least as far as visiting artists are concerned.¹⁸⁷

¹⁸⁷ *The Japan Times*,
January 1, 1939, 3

Efforts were made to compensate for this lack of musical highlights by foreign musicians living in Tokyo, such as Leonid Kreutzer (1884–1953) or Leo Sirota (1885–1965), as well as Japanese musicians returning from Europe after their studies, such as Hara Chieko¹⁸⁸ (1914–2001). In the year 1940, political developments took place effecting the concert life in Tokyo. In November, a “Musical World New Structure Promotion League”¹⁸⁹ was formed. Orchestras included in the new League were the New Symphony Orchestra, the Chūō Symphony Orchestra, the Tōhō Symphony Orchestra, the Takarazuka Orchestra, the Shōchiku Orchestra, the Tokyo Broadcasting Orchestra, and the Osaka Broadcasting Orchestra.

¹⁸⁸ 原智恵子

¹⁸⁹ 楽壇新体制促進同盟
Gakudan shin taisei sokushin dōmei, Asahi Shimbum, November 25, 1940, M.E., 3

However, while the orchestras now had to subjugate to the constraints formulated by this new organisation, the orchestras were apparently able to maintain their occupations, in contrast to other forms of entertainment such as theatres and dance halls which were increasingly being shut down. It was noted, that “otherwise, however, the musical life has undergone little change and felt but few restrictions under the new trend of the time which has had much more far-reaching effects in other fields of the national cultural life, and on the whole, musical activities in Japan have been continuing just in the same ways as before, if under changed forms of organization”¹⁹⁰

¹⁹⁰ *The Japan Times*,
January 6, 1941, 2

A large number of events were planned all over the country to commemorate the 26th centenary of the founding of the Japanese Empire (celebrating the 2,600th anniversary of the enthronement of emperor Jimmu,¹⁹¹ who according to legend was the first emperor of Japan). Orchestral compositions by four European composers, especially written for the occasion were received throughout the year and rehearsed by an orchestra consisting of 164 musicians, selected from “the Imperial Household Orchestra, the Tokyo Academy of Music Orchestra, the New Symphony Orchestra, the Chuo Symphony Orchestra, the Seio Brassband, and the Tokyo Broadcasting Orchestra,” which was described as a “general mobilization of the Japanese musical world”¹⁹². The orchestra included the following instruments, displayed in Table 2.6.

191 神武天皇

192 *The Japan Times*, May 12, 1940, 3

Table 2.6 Composition of the orchestra, at the concert to commemorate the 26th centenary of the founding of the Japanese Empire, in addition to the instruments displayed, one organ is mentioned.

Strings					Woodwinds				Brass			Other			
Vn1	Vn2	Va	Vc	Cb	Fl	Ob	Cl	Bn	Hn	Tp	Tbn	Tba	Hp	Tmp	Prc
24	22	18	16	12	5	3	7	6	16	8	8	2	3	0	12

The compositions were first presented to a selected audience in Tokyo in a special premiere concert, attended by members of the Imperial family, politicians and foreign dignitaries. This concert was held at the Kabukiza, on Saturday, December 7, 1940. The concert was repeated on the next day, in front of a general audience. It consisted of a composition by the french composer Jaques Ibert (1890–1962) conducted by Yamada Kōsaku, a work by Swiss-Hungarian composer Sandor Veress (1907–1992) conducted by Hashimoto Kunihiko¹⁹³ (1904–1949), and a work by Ildebrando Pizzetti (1880–1968) conducted by Gaetano Comelli (1894–1977), who was at the time conductor of the Imperial Household Orchestra. The program was concluded with a composition by Richard Strauss (1864–1949), conducted by Helmut Fellmer (1902–1977), from the Academy of Music.¹⁹⁴

193 橋本國彦

The year ended with a concert of Beethoven’s Ninth Symphony, which could also be heard on the radio. Hans Erik Pringsheim, in a special article in the Japan Times noted, that this was done “following the example of the Volksbuehne (Theater of the People) of Berlin” and expressed the hope, that “this first year-end broadcast of the Ninth Symhony will have been the beginning of a tradition in Japan, too.”¹⁹⁵ Today we know, that his hopes have been more than fulfilled. There has been some debate about the origin and

194 The score provided by Strauss is archived at JACAR, A10110061300 <https://www.digital.archives.go.jp/das/image-j/M0000000000000015054>

195 *The Japan Times*, January 5, 1941, 4

the starting point of this tradition. The origin suggested here would present another possibility (cf. Hirschfeld 2005, 106–108).

Joseph Rosenstock (1895–1985), born in Krakow, arrived in Japan in 1936. During his career, he was employed in Darmstadt and Wiesbaden, and from 1928 at the Metropolitan Opera in New York. After his return to Germany, supposedly due to bad reviews in New York, he found employment in Mannheim and finally until his emigration to Japan in 1936 as musical director of the “Kulturbund deutscher Juden” in Berlin. Rosenstock became the permanent conductor of the New Symphony Orchestra from September of 1936. German representatives in Tokyo tried to provide a different conductor for the post, the orchestra however, decided for Rosenstock (Schauwecker 1994, 243). A welcome party in his honour, organized by the New Symphony Orchestra was held at the Seiyoken Restaurant on September 2, 1936. This was followed by a reception concert on September 21, where Rosenstock conducted Beethoven’s Symphonies 3 and 4 and the Leonore overture, No. 3.¹⁹⁶ Starting from September 1940, and opening its “15th Philharmonic Concert Season”¹⁹⁷, the New Symphony orchestra started to repeat the monthly program on the following day, Thursdays and Fridays. Rosenstock’s contract was extended in the spring of 1940 (Bieber 2014, 761). On January 22, 1941 Rosenstock conducted the Japanese premiere of Mahlers Song of the Earth.¹⁹⁸ In May of 1942, the name of the New Symphony Orchestra was changed to Nippon Symphony Orchestra¹⁹⁹ and “for the first time, a symphony orchestra officially supervised by the Government through the Board of Information has thus been created, with the cooperation of the Japan Broadcasting Corporation”²⁰⁰.

From September of 1942 until the end of the war, it was mandatory for all orchestras to include a composition by a Japanese composer in their program. The New Symphony Orchestra started with the orchestral arrangement of Etenraku²⁰¹, a traditional Gagaku piece arranged for the orchestra by Konoe Hidemaro. Apart from Rosenstock, the orchestra was in these years conducted by Yamada Kazuo²⁰² (1912–1991), a student of Leo Sirota (1885–1965) and Klaus Pringsheim (1883–1972) at the Academy of Music. Despite the increasingly difficult situation for foreign artists, Rosenstock was able to continue to work with the orchestra. This was possible mainly thanks to the managing director Arima Daigoro²⁰³ (1900–1980), who according to Hayasaki (2011, 264) passionately stood up for Rosenstock. The last subscription concert featuring Rosenstock took place as late as February 16 and 17, 1944 (NHK kōkyō gakudan 1977). Rosenstock had managed to transform the orchestra into a “disciplined, well integrated, and fully responsive symphonic ensemble” (Grilli 1977, 292).

The origins of the Chūō Symphony Orchestra go back to the Matsuzaka-

¹⁹⁶ *The Japan Times*,
August 25, 1936, 1

¹⁹⁷ *The Japan Times*,
September 9, 1940, 8

¹⁹⁸ *The Japan Times*,
January 22, 1941, 3

¹⁹⁹ 日本交響楽団
Nippon kōkyō gakudan

²⁰⁰ *The Japan Times*,
May 1, 1942, 2

²⁰¹ 越天楽

²⁰² 山田一雄

²⁰³ 有馬大五郎

kaya department store in Nagoya, at the time called Itō Gofukuten, which installed a Itō Gofukuten Young Boys Band²⁰⁴ in 1911. The name of the department store was changed to Matsuzakaya in 1925, the boys band developed into a serious orchestra and changed its name several times, until it moved its center of activities to Tokyo in 1938. Sources differ on when the name was changed to Chūō Symphony Orchestra²⁰⁵, but in March of 1936, it was announced that “Viscount Hidemaro Konoye, former conductor of the New Symphony Orchestra, has been received by the Chuo Symphony Orchestra as its conductor recently”²⁰⁶. In the same year, the orchestra was active in a number of concerts, accompanying international guest artists. Emanuel Feuerman (1902–1942) gave a series of five recitals in Tokyo in 1936, the last one at the Hibiya Public Hall, accompanied by the Chūō Symphony Orchestra under the baton of Konoe Hidemaro. However, the climate in this orchestra does not seem to have been particularly good during this time. Feuermann expressed in a letter (to the Hindemith’s), that “there is a big mess in Tokyo [...] Konoye and his orchestra have declared war against each other, especially the orchestra against Konoye” (Morreau 2002, 131–132). Under the direction of Robert Pollak, it was featured in Mischa Elman’s last concert in Japan on April 13, 1937, presenting Beethoven’s D Major Concerto, Op. 61 and Tchaikowsky’s D Major Concerto, Op. 35.²⁰⁷

Eventually it was decided to start over with a new composer. Manfred Gurlitt (1890–1972) arrived in Tokyo in May 1939 with his wife and started rehearsing with the Chūō Symphony Orchestra in autumn of 1939. He was a well trained composer and conductor, who had studied composition with Engelbert Humperdinck (1854–1921) and conducting with Karl Muck (1859–1940). He had gained experience as a conductor at the theatres in Augsburg and Essen. In 1914 he became first conductor at the Municipal Theatre in Bremen, where he was promoted to music director in 1924. From 1927 he returned to Berlin and was guest conductor at the Berlin State Opera, and had a successful period, which ended with the Nazi’s coming into power in 1933. His opera compositions, especially the opera *Nana* were being rejected because of alleged social-critical tendencies (Suchy 1992, 195). In order to be able to continue performing his works he joined the NSDAP in 1933, but was expelled in 1937, for being a Jew of “Mixed Race of the 2nd Order”(Götz 1996, 118). Not seeing any future in Germany, he left in 1939 hoping for employment at the Academy of Music in Tokyo, which was prevented by German officials. But Gurlitt decided to embark for Japan nevertheless, after a travel permit for a “study trip” had been issued (Galiano 2006). He was appointed conductor of the Chūō Symphony Orchestra, which was restructured and placed under administration of the Tokyo Electric Corporation, which also owned the recording companies Nippon

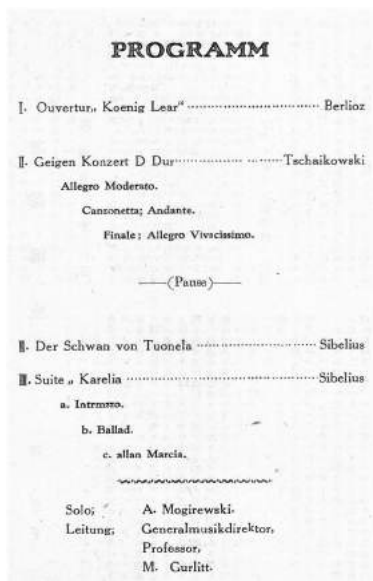
204 とう呉服店少年
音楽隊 Itō gofukuten
shōnen ongakutai

205 中央交響楽団
Chūō kōkyō gakudan

206 *The Japan Times*,
March 24, 1936, 3

207 *The Japan Times*,
April 15, 1937, 2

Victor and Nipponphone. Three orchestral concerts were given, one in the Kabuki-za, and two in the Hibiya Public Hall, before a regular concert series was initiated. Figure 2.12 shows the program of the orchestra's 12th regular concerts at the Hibiya Public Hall. At that time, the orchestra consisted of 69 musicians.



208 東京交響楽団
Tōkyō kōkyō gakudan

209 *The Japan Times*,
June 21, 1941, 5

210 *Nippon Times*,
March 8, 1944, 3

211 *Das Konzert
mit Gurlitt wurde
dann, einmal noch,
ein wirklich durch-
schlagender Erfolg vor
breitestem Publikum*

212 *Nippon Times*,
January 24, 1945, 3

213 松竹交響楽団
Shōchiku
kōkyō gakudan

214 *The Japan Times*,
February 2, 1942, 2

Figure 2.12 Program of the 12th regular concerts of the Chūō Symphony Orchestra, under the direction of Manfred Gurlitt.

The name was changed from Chūō Symphony Orchestra to Tokyo Symphony Orchestra²⁰⁸ from the 13th subscription which was given at the Hibiya Public Hall under the direction of Manfred Gurlitt on June 21, 1941.²⁰⁹ The 25th subscription concert, which took place on January 18, 1944, featured Gurlitt conducting Eta Harich-Schneider on the piano playing Mozart's piano concert KV 488.²¹⁰ Harich-Schneider herself described it as a "a truly triumphant success in front of the widest audience."²¹¹ (Harich-Schneider 1978, 248)

A third orchestra started to give concerts from 1942, described in the *Japan Times* as the "youngest among the three large concert orchestras of the metropolis."²¹² The Shōchiku Symphony Orchestra²¹³ gave its first periodical concert at the Kyōritsu Hall on January 31, 1942²¹⁴. The orchestra was conducted by August Junker, who "has been successful in working out performances of a satisfactory standard with the enlarged Shōchiku Symphony Orchestra, most of whose members certainly have not had much experience

in the playing of symphonies.” From 1943 onward, the name was changed from Shōchiku Symphony Orchestra to Dai-Tōa Symphony Orchestra²¹⁵, or “Greater East Asia Symphony Orchestra” (see page 23). It was under this name conducted by Joseph Rosenstock among others and gave concerts at the Kabuki-za and at the Tokyo Gekijō. The last concert, which can be found in the Japan Times has taken place on January 20, 1945, at the Hibiya Public Hall with Saitō Hideo conducting. In December of 1945, the name Shōchiku Symphony Orchestra appears again under different circumstances, in a “Grand Stage Show for the Allied Forces”.

The large Nippon Gekijō also featured an orchestra, called the Nichigeki Symphony Orchestra²¹⁶ which launched a “series of popular orchestra concerts”²¹⁷ starting on Thursday, February 29, 1940, with a program that would be repeated for an entire week. The proclaimed goal was to “acquaint movie goers with serious music.”²¹⁸ The orchestra consisted of about 50 players at this time, conducted by Klaus Pringsheim. In May, it was announced that the size of the orchestra was increased to 60 musicians. In August, starting from the 9th series of regular symphonic concerts, the name was changed to Tōhō Symphony Orchestra. This series was started with a guest appearance by Rudolf Fetsch (1900–1974), who at the time acted as conductor for the Takarazuka Symphony Orchestra.²¹⁹ The last time an announcement for a concert by the Tōhō Symphony Orchestra appeared in the Japan Times, was for a series of concerts from May 5 to May 10, 1943, for an operatic program at the Imperial Theatre.²²⁰

Apart from these orchestras, there were a number of amateur orchestras that also aspired to perform larger symphonic works. With the goal to “promote symphonic music among the public,” the Concert Populaire²²¹ was founded in April of 1937 by graduates of the Tokyo Academy of Music and other young Japanese musicians. The first concert was held on April 20, 1937 at the Nihon Seinenkan.²²² The young orchestra was joined by Leo Sirota as soloist in a concert on June 30, 1938 at the Nihon Seinenkan Hall, playing Beethoven’s Emperor concerto.²²³ The orchestra grew in size and had “more than 60 members” in a concert on October 21, where Mendelssohn’s Italian Symphony was given, among other pieces.²²⁴ In Autumn of 1939, Maxim Shapiro, at the time teacher at the Academy of Music, appeared as the soloist in a number of concerts with the orchestra playing Beethoven’s piano Concerto No. 4 on October 4 and No. 1 on November 12. Hans Erik Pringsheim, describing the performance on November 12, mentions that “the players of this group widely differ in the degree of technical facilities and musical capabilities. Some of the members, especially among the first players, are very earnest, thoroughly educated young musicians, others are half amateurs” and goes on to suggest that “this orchestra could learn

215 大東亜交響楽団
Dai tōa kōkyō gakudan

216 日劇交響楽団
Nichigeki kōkyō
gakudan

217 日劇名曲
オーケストラ
Nichigeki meikyoku
ōkesutora, Yomiuri
Shimbun, February 28,
1940, E.E., 4

218 *The Japan Times*,
March 3, 1940, 4

219 *The Japan Times*,
August 1, 1940, 4

220 *The Japan Times*,
May 5, 1943, 4

221 コンセル
ポピュレール

222 *The Japan Times*,
April 7, 1937, 4

223 *The Japan Times*,
June 15, 1938, 8

224 *The Japan Times*,
September 9, 1938, 8

²²⁵ *The Japan Times*,
October 27, 1939, 4

something from the spirit of its elder brother, the New Symphony Orchestra, which is a shining model in point of strict coordination and subordination of private interests for the sake of the common cause.”²²⁵ A milestone for the orchestra was to give its first concert in “Tokyo’s main concert hall”, the Hibiya Public Hall on December 21, 1939. The orchestra played Schubert’s Unfinished Symphony, in b minor, about which Hans Erik Pringsheim remarked in his critique, that this piece was “according to statistics the most popular, most frequently played symphonic composition in Japan.”²²⁶ Starting on November 4, 1940, the name was changed from Concert Populaire to Japanese Youth Symphony Orchestra,²²⁷ and a new series of subscription concerts was started.²²⁸ On March 15, 1941, the promenade concerts at the new Yūraku-za theatre were revived, and the Japanese Youth Symphony Orchestra played Beethoven’s Fifth Symphony, with an orchestra of about 45 musicians. Another promenade concert was announced for March 22, with Grieg’s Peer Gynt Suite on the program.²²⁹ The last concert announced in the Japan Times, is the 17th periodical concert on June 15, 1942.

²²⁶ *The Japan Times*,
December 22, 1939, 4

²²⁷ 青年日本交響楽団
*Seinen nippon
kōkyō gakudan*

²²⁸ *The Japan Times*,
November 4, 1940, 2

²²⁹ *The Japan Times*,
March 16, 1941, 3

Air raids on Tokyo commenced on April 18, 1942. The most victims among the Tokyo population occurred during air raids from 10 February 1945 to 29 May 1945 (see page 42). The larger orchestras presented in this chapter continued their subscription concert series all through 1944, and also in the early month of 1945. All of them were led by Japanese composers from 1944. The Nippon Symphony Orchestra continued its subscription concerts throughout the whole time, conducted by various Japanese conductors between March 1944 and August 1945.

Chapter 3.

Concert Venues in Tokyo

In this chapter, the rooms identified in the previous chapter as performance venues for symphonic music are described in detail. The venues for the performance of symphonic music included school auditoria, theatres, hotels, multi-purpose halls and open-air bandstands as well as a first small concert hall built for symphonic music. For all rooms presented here at least one large orchestral performance was found in the literature, which is documented in the database (see Chapter 2.1). Only venues are included where performances of symphonic music were performed in an orchestral setting, while venues where primarily chamber music or solo recitals were performed are not included. During the Shōwa period, a large number of different school auditoria and classrooms were used for occasional orchestral performances. These are not included in this sample. This chapter will also argue that the rooms can be clearly divided into two groups separated by the Kantō earthquake, which marks an essential turning-point for the history of these performance venues.

3.1. Concert venues before Kantō earthquake

The venues which were used for symphonic concerts before 1923, consisted of the hall of the Music Research Institute (1880), the ballroom of the Rokumeikan (1883), the hall of the Academy of Music (1890), the first Imperial Hotel (1890), the hall of the Y.M.C.A. in Kanda (1894), the bandstand in Hibiya park (1905), the Imperial Theatre (1911), the Nanki Auditorium (1918), and the Imperial Hotel (1923). These rooms are described in more detail in the following chapter in regard to their construction history, the people involved, their appearance and the characteristics of the interior.

As a supplement to the information presented in this chapter, a dataset, which provides a drawing of all the rooms shown in this chapter, to enable an comparison on a graphical level, can be accessed at the research repository “deposit once” of the Institute of Technology Berlin. This dataset can be accessed at the following doi:

<http://dx.doi.org/10.14279/depositonce-15543>

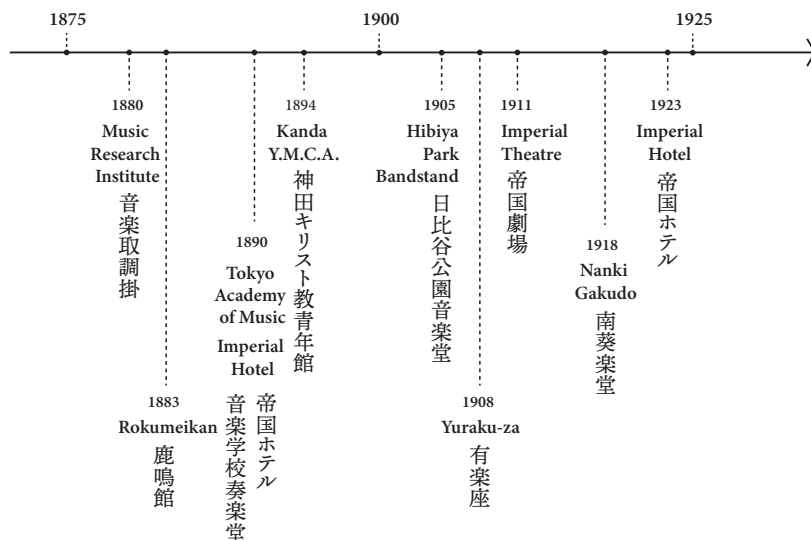


Figure 3.1 Timeline, showing the rooms identified as venues for symphonic concerts in Tokyo in the first half of the period under investigation — the time between 1868 and the Great Kantō earthquake in 1923.

3.1.1. The Music Research Institute

The Music Research Institute²³⁰ was created in October 1879, and since 1880 found a home at the official residence of the former educator David Murry (1830–1905), in the Hongō district (Watabe-Gross 2007, 96). The address specified in the details of the photo shown in figure 3.2 was “Ministry of Education, Land No. 16, Teacher Hall.”²³¹ In the short period of its existence, until it was transformed into the Tokyo Academy of Music, 17 official concerts were organized by the Music Research Institute. Most of the concerts took place on the premises of the Institute itself (Watabe-Gross 2007, 138). The one-storey building included a music room, as well as practice and lecture rooms. Looking at these available rooms, it is assumed that the concerts took place in the large music room, which had a floor area of approximately 60 m² (see Figure 3.10). At a concert on February 19, 1887, at which parts of Beethoven’s Symphony No. 1 were also performed, about 500 people are said to have been present. Considering the floor space of the music room, these guests could only have been standing. It is not known when the building was destroyed or demolished, but at the place where the building was situated, today is the University of Tokyo, Faculty of Law, Building No.1.²³²

²³⁰ 音楽取調掛
Ongaku torishirabe gakari

²³¹ 本郷文部省用地
内第十六番教師館
*Hongō monbushō
yōchinai dai-
jūrokuban kyōshikan*

²³² 東京大学
法文1号館



Figure 3.2 Building of the Ministry of Education in Hongō district, Building No. 16, specified as “Teacher Hall”. The building was used by the Music Research Institute from 1880.



Figure 3.3 Interior view of the large music room of the Music Research Institute in 1880, displaying instruments available at the institute at the time.

3.1.2. The Rokumeikan

In the last two decades of the nineteenth century, concert activities in Tokyo were promoted primarily by the Japan Music Society²³³. Before the auditorium of the Music Academy and the ballroom of the Imperial Hotel were opened in 1890, concerts of this society took place mostly at the ballroom of the Rokumeikan²³⁴ (see page 46). The plan to build the Rokumeikan was instigated by Inoue Kaoru²³⁵ (1836–1915), who considered this building necessary as a place for foreigners to witness a developed Japan on the way to the revision of the unequal treaties (Finn 2006; T. Watanabe 1996). The design for the building was provided by Josiah Conder. On November 28, 1883 guests gathered “to inaugurate the new Reception Hall near the Hi-biya Parade Ground in Tokiyo”²³⁶ The speech given by the architect of the building at the opening event was printed in the Japan Times and illustrates how Tokyo’s urban development was assessed from the point of view of a foreign architect in those years. An excerpt of this speech will therefore be reproduced here:

There is a certain amount of satisfaction in assisting, be it in ever so humble a way, in the conversion of this large wooden Capital into a permanent city by the erection here and there of solid and enduring buildings within its precincts. [...] Tokiyo must some day become a city of brick and stone; and the time is not far distant, let us hope, when no wooden huts will be built within its precincts²³⁷

The original floor plans by Josiah Conder are lost, but a small drawing can be found in a book edited by Fujimori (1995, 26). Another drawing of the first floor can be found in a publication by Suzuki et al. (2009, 75). In the review of a concert of the Japan Music Society on February 27, 1890, which featured the Army and the Navy bands, and the “Shikibushoku band”, no numbers were given with regard to the occupancy of the concert, but it was mentioned that “the rooms were crowded.”²³⁸ That the plural was used in this article indicates that the audience was most likely situated in the ballroom on the first floor, as well as the adjacent rooms during concerts at the Rokumeikan. Looking at the available floor space in the ballroom and assuming that the orchestras that played there would not have occupied more than one-third of the space, the orchestras at the time could not have consisted of more than approximately 15 musicians.

²³³ 日本音楽会
Nihon ongakukai

²³⁴ 鹿鳴館 liter-
ally translating to
“Deer Cry Pavilion”

²³⁵ 井上馨

²³⁶ *The Japan
Weekly Mail*, De-
cember 1, 1883, 744

²³⁷ *The Japan
Weekly Mail*, De-
cember 1, 1883, 745

²³⁸ *The Japan
Weekly Mail*,
March 1, 1890, 205



Figure 3.4 Façade of the Rokumeikan, the architectural style is described by the architect of the building, Josiah Conder, as a “Renaissance Villa”. Concerts took place in the middle room on the first floor.



Figure 3.5 Interior of the Rokumeikan. It is assumed that this room is the left side room (looking at the building’s façade) of the ballroom on the first floor, as there is another door visible in the rear of the adjacent room.

3.1.3. The Hall of the Academy of Music

After the opening of the auditorium of the Tokyo Academy of Music, it became an essential location for the upcoming performances of symphonic music at the end of the nineteenth century in Tokyo. While the military was placed under the leadership of Japanese conductors quite early on, the music school continued to rely on foreign teachers for a long time, who contributed to the fact that the symphonic repertoire was increasingly performed. The auditorium was referred to in the English media of the time as the “hall of the Academy of Music”. Today the building is known as Sōgakudō²³⁹

²³⁹ 奏楽堂
which literally trans-
lates to “concert hall”

²⁴⁰ 山口半六

The new school building was designed by the architects Yamaguchi Hanroku and Kuru Masamichi. Yamaguchi Hanroku²⁴⁰ (1858–1900), in 1876 and only 18 years old, was granted the opportunity to study abroad, at the École Polytechnique in Paris. After graduating he stayed in Paris for two more years to gain work experience. Upon his return to Japan, he worked in the Ministry of Education and was responsible for a large number of educational buildings. The new building of the Academy of Music, which contained the auditorium on the first floor was one of these projects. Kuru Masamichi²⁴¹ (1855–1914), a student of Josiah Conder, is nowadays mostly remembered for the Japanese pavilion, which was presented at the World’s Columbian Exposition in Chicago in 1893 (Coaldrake 1996, 241).

²⁴¹ 久留正道

Rudolf Dittrich became artistic director of the Academy on November 1, 1888. According to the “Official Gazette No. 2060” quoted by Maeno (1984, 2695) and dated May 15, 1890, the construction of the new school building began in October of the year 1889. The official opening of the building took place on May 12, 1890. Dittrich’s influence on the planning of the auditorium is not substantiated, but looking at this chronological order of events one can assume that his opinion must have been considered during the planning process. In addition, it is frequently mentioned that Uehara Rokushirō²⁴² (1848–1913) was the acoustic consultant for the project (Finn 1995, 112). Uehara is not mentioned in any of the official documents as the acoustician of the building, but it can be assumed that he was involved in the planning of the building since the measures implemented in the building correspond to those propagated by Uehara in magazines of the time Maeno (1984, 2695). When the new building was opened in May 1890, it was located where the Tokyo University of the Arts concert hall is located today. Figure 3.10 compares the floor space of the building of the Academy of Music with the building where its predecessor, the Music Research Institute was accommodated before.

²⁴² 上原六四郎



Figure 3.6 Facade of the main building of the Tokyo Academy of Music, shortly after completion in May, 1890. The auditorium was located on the first floor of the central part of the building.



Figure 3.7 Interior of the auditorium of the Tokyo Academy of Music. The photo shows the auditorium in 1930, with the enlarged stage and free standing wooden chairs with only the seats upholstered with leather.

The building designed by Yamaguchi was a hybrid structure combining Western and Japanese elements. The outer appearance and the general layout of the building was of Western influence. The architectural style is described by architectural historians with expressions like “Classical Revival” or “romantic classicism” with Baroque influences and a Palladian Portico (see Coaldrake 1996, 240; Finn 1995, 111). The structural framework of the building however, was made of timber and used the traditional Japanese system of joinery using no nails, but a system of joints and connecting splices (Seike 1977).

The Auditorium still exists today. A recent renovation for seismological reasons was completed in autumn of 2018, but the original dimensions of the auditorium have been preserved. The hall is 16.4 m wide and 26.4 m long. It features an inclined staircase, a ceiling with a raised vault at the center, and plastered walls curved at the corners (Tōkyō shinbun shuppan kyoku 1987, 126). The stage size was increased several times, indicating the change in size of the orchestras that had to be accommodated: from a stage area of approximately 34 m² in 1899 to approximately 105 m² in 1905. An additional alteration took place in 1932 (see Figure 3.9).

After the renovation and relocation to Ueno park, the hall featured 330 fixed seats but photos of the interior during the early years show free standing wooden chairs, lightly upholstered with leather. Concerning the capacity of the hall, in a concert on October 29, 1905 one visitor witnessed approximately 600 people in the audience, an orchestra of about 50 people and a choir of 90 people.²⁴³ This figure must be understood as an estimate and could have varied due to the free standing chairs, but it can be assumed that about twice as many people attended the concerts during the period under investigation compared to concerts after the move to Ueno Park.

During the Kantō earthquake, the school building was partially damaged but not completely destroyed. The roof of the building had to be replaced and the lighting in the building renewed, but compared to many other buildings the damage was rather small (Tōkyō shinbun shuppan kyoku 1987, 146). Over the following years however, the wooden structure slowly deteriorated, and discussions about the future of the building began. Plans were made in the early 1970s to relocate the building to the Meiji-village,²⁴⁴ an open air museum located in Inuyama, Aichi prefecture, where a number of other buildings of cultural significance, such as the entrance lobby of Frank Lloyd Wright’s Imperial Hotel (see Section 3.1.10), are being preserved.

²⁴³ “Gegen 600 Personen waren zugegen [...] Ein gutes Orchester von 50 Mann, das sich mit manchem deutschen Orchester messen kann, ein Chor von 90 Stimmen”.
Deutsche Japan-Post,
November 2, 1905

²⁴⁴ 明治村
Meiji mura

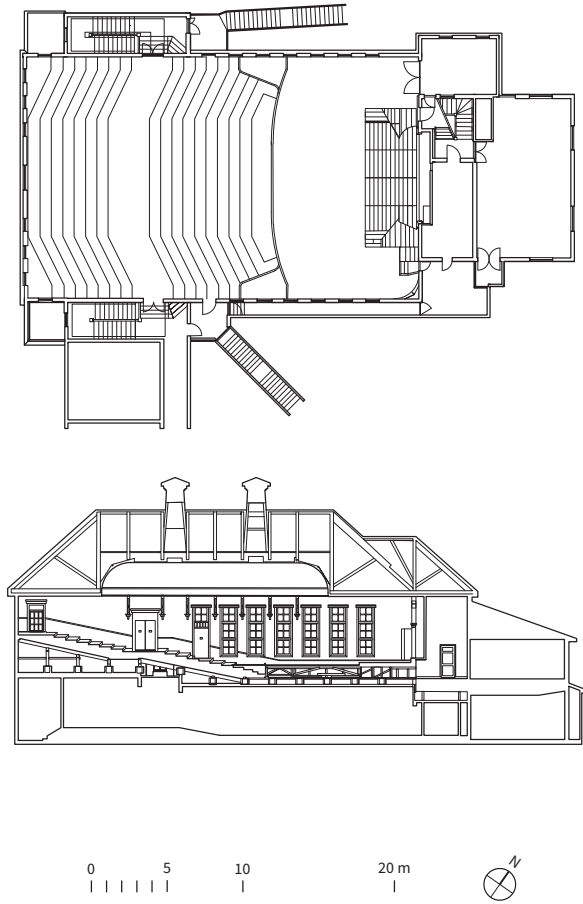


Figure 3.8 Longitudinal section (top) and floor plan (bottom) of the Hall of the Academy of Music, Scale = 1:500, The drawing depicts the situation at the time of the relocation to Ueno park.

The party in favour of preserving the building was supported by the Architectural Institute of Japan, which issued a statement highlighting the significance of the building from the point of acoustics and building history (see Appendix E.7). With the support of the Taito ward, it was ultimately decided to remove the side wings of the building and dismantle the core of the building including the auditorium on the second floor and rebuild it in the adjacent Ueno Park. About 70% of the materials from the original structure were reused and the pipe organ repaired (Bunkazai kenzōbutsu hozon gijutsu kyōkai 1987). The reopening at the present location in Ueno park took place on March 27, 1987. (Tōkyō shinbun shuppan kyoku 1987, 8) In commemoration of the 100th anniversary of the university in the same year (counting from the establishment of the Tokyo Academy of Music), concerts were held at the hall.²⁴⁵

²⁴⁵ *The Japan Times*,
October 22, 1987, 14

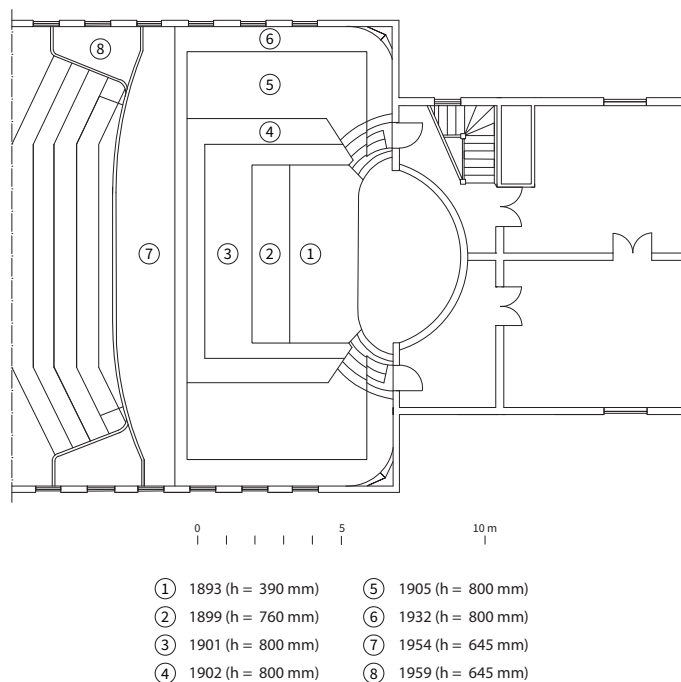


Figure 3.9 Drawing depicting the history of the gradual enlargement of the hall of the Academy of Music stage between 1893 and 1959

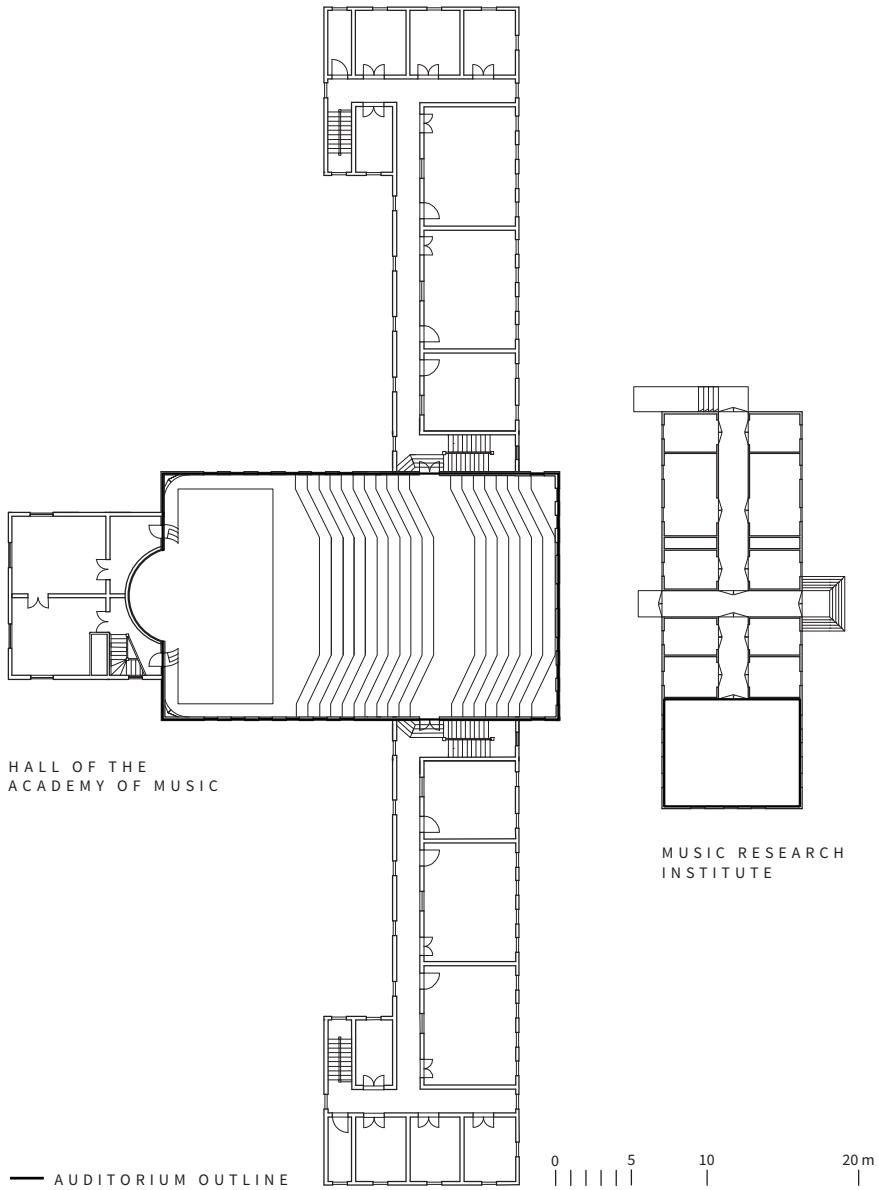


Figure 3.10 Floor plan comparing the main building of the Tokyo Academy of Music (left), opened in 1890 with a floor plan of about 410 m² with the building where the Music Research institute was accommodated from 1880 (right), with a floor space of about 60 m², Scale = 1:500.

3.1.4. The first Imperial Hotel

²⁴⁶ 帝国ホテル,
Teikoku hōteru

The history of the Imperial Hotel²⁴⁶ is made up of three different buildings, all located on the same site east of Hibiya Park, where the third version of the building is currently located. The architecture of all of these three versions is characteristic for the historical period in which they were built. The first Imperial Hotel, opened in 1890, was realized based on the efforts of Inoue Kaoru, who had already been the driving force behind the Rokumeikan project. The hotel was another attempt to further establish Japan's reputation in the world as advanced nation. He convinced Shibusawa Ei-ichi²⁴⁷ (1840–1931) and Ōkura Kihachirō²⁴⁸ (1837–1928) to found the Imperial Hotel holding (Tōkyō-Teikoku-Hōteru 1990). The Berlin based architectural firm Böckmann & Ende was hired to provide the design of the building, but it seems that the proposed design did not suit the available soil. Josiah Conder, who already had the chance to gain experience in this respect during the construction of the Rokumeikan on the adjacent property, was called in as a consultant. Conder mentioned, that “considering the very unreliable nature of the soil with which I was familiar [...] I did not hesitate to recommend the employment of the lightest possible structure consistent with stability and durability, and suggested the adoption of a strong timber and iron framework filled in with brick and cemented, in order to render it fireproof”²⁴⁹. Watanabe Yuzuru²⁵⁰ (1855–1930), who after having studied under Josiah Conder had furthered his studies in Berlin took over after the German architects were dismissed from the project, and supervised the completion of the building. Concerning the question how much of the design of the building can be credited to either Böckmann & Ende or Watanabe, Conder stated in a newspaper of the time, that “finding foundations almost completed when he assumed charge of the work, the architect, Mr. Watanabe, followed to a great extent the original ground plans”. Figure 3.13 shows a comparison of the floor plans of the Imperial Hotel and the Rokumeikan.

²⁴⁹ *The Japan
Weekly Mail*, Septem-
ber 20, 1890, 283

²⁵⁰ 渡辺謙

²⁵¹ *The Japan Times*,
November 21, 1913, 1

²⁵² *The Japan Times
& Mail*, Decem-
ber 29, 1919, 10

The Meiji Music Society, under Dubravcich gave an orchestral concert at the ballroom in 1913, with an attendance of “more than 500.”²⁵¹ In 1906 the capacities of the hotel were no longer sufficient, and a two-storey annex with additional 40 rooms was built. This annex burned down completely on December 27, 1919.²⁵² Three years later, the main building burned down on April 16, 1922. A fire was started by a cigarette of a hotel worker. The new hotel building, still under construction at the time, as well as the annex, where not harmed (see Chapter 3.1.10).

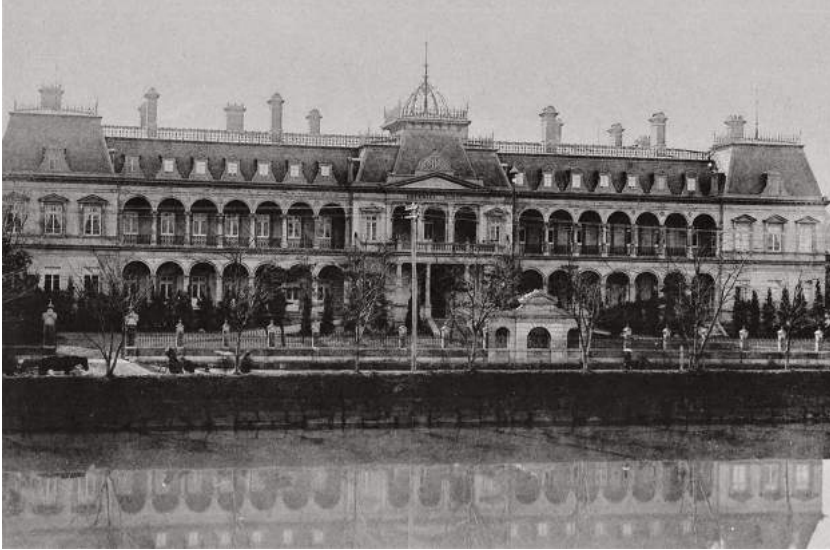


Figure 3.11 Façade of the Imperial Hotel, which opened in 1890. The moat seen in front of the hotel later disappeared and a street took its place. The architectural style was described as a “three storey timber construction in a German meets French Second Empire Beaux Arts style” (Lloyd Jones 2017).

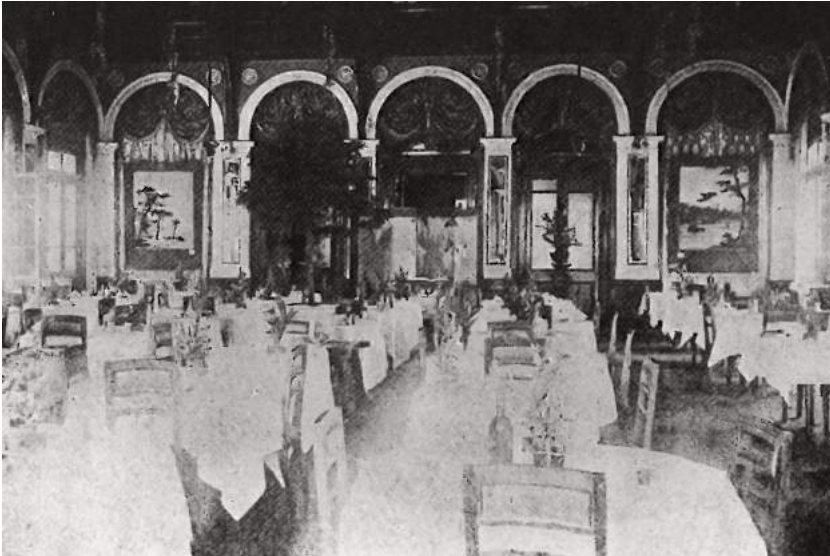


Figure 3.12 Ballroom and dining room of the Imperial Theatre in the year 1906, concerts with an attendance of around 500 people are said to have taken place in this ballroom.

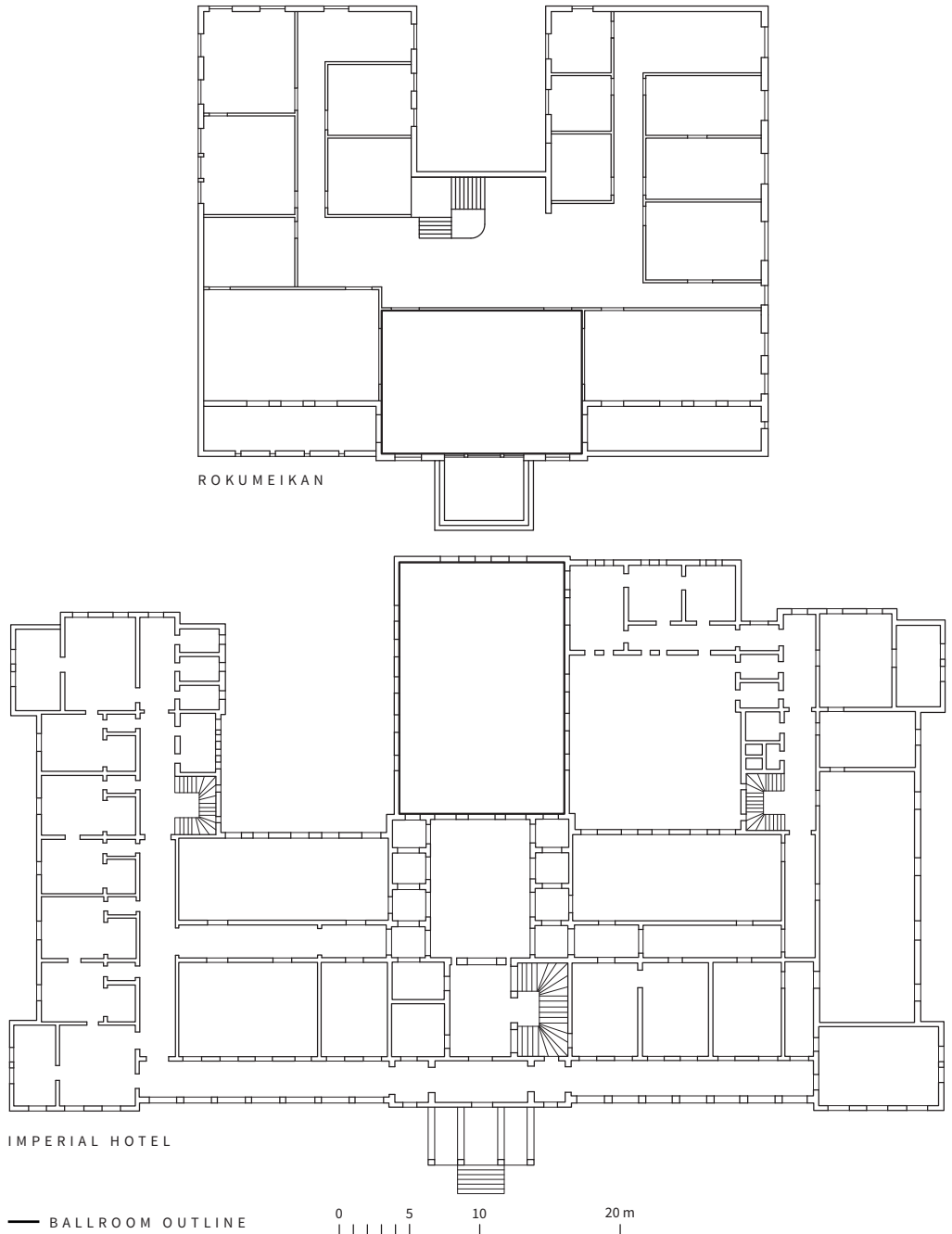


Figure 3.13 Comparison of the floor plan of the Rokumeikan, opened in 1883 and the Imperial Hotel, opened in 1890 on two adjacent premises next to Hibiya Park. The outline of the ballrooms in both venues is highlighted.

3.1.5. The Kanda Y.M.C.A

Apart from the auditorium of the Academy, the hall of the Tokyo Young Men's Christian Association (Y.M.C.A)²⁵³, which was opened about three years later in March 1893, was also used regularly for concerts at the end of the 19th century. The Tokyo Y.M.C.A. was founded in 1880. The American John T. Swift (1861–1928) came to Japan in 1889 and the Y.M.C.A. building was realized to a large extent thanks to the commitment of Swift and also partly financed by him personally (Davidann 1998, 48). Swift succeeded in obtaining a premise in the Kanda Mitoshirochō district and Josiah Conder was hired as the architect.

The first plans were completed in July of 1892 and it was decided that the Shimizu corporation would be in charge of construction. The construction was completed on March 13, 1894, and the opening ceremony held on May 5 (Katō 1980, 61–63). The building was made up of red brick and the floor plan was organized as two squares, a three-story main building facing the street with a steeple, and a two-storey auditorium attached to the back. The main building shows some resemblance to the “Tower House”, by William Burges (1827–1881), who was Conder's teacher. Especially the distinctive cylindrical tower and the location of this tower show some similarity, so Conder might have been inspired by his teacher.

Looking at the preserved drawings, the auditorium had a floor space of roughly 288 m², and the audience was seated on wooden pews on both floors (Katō 1980). The drawings indicate a stage with a width of around 5 m, but looking at photos of performances in this hall, the stage seems to have been enlarged later compared to the stage shown in Conder's drawings (Kashiwai En 1907). The main purpose of the auditorium was to serve for speeches and religious lectures. However, as it was one of the largest in Tokyo at the time, it was rented out to generate income and cover the costs of the building. An example of a concert at the Y.M.C.A was the concert by the Tokyo Symphony Orchestra, directed by Jaques M. Gershkovitch, on Thursday, May 31, 1923.²⁵⁴

The building was destroyed during the Great Kantō earthquake in 1923. A new building was opened in 1929, and a formal opening ceremony for the new building was announced to take place on Saturday, January 18, 1930.²⁵⁵

²⁵³ 東京キリスト教青年会館 *Tōkyō kirisuto kyō seinen kaikan*

²⁵⁴ *The Japan Times & Mail*, May 31, 1923, 8

²⁵⁵ *The Japan Times & Mail*, January 13, 1930, 3

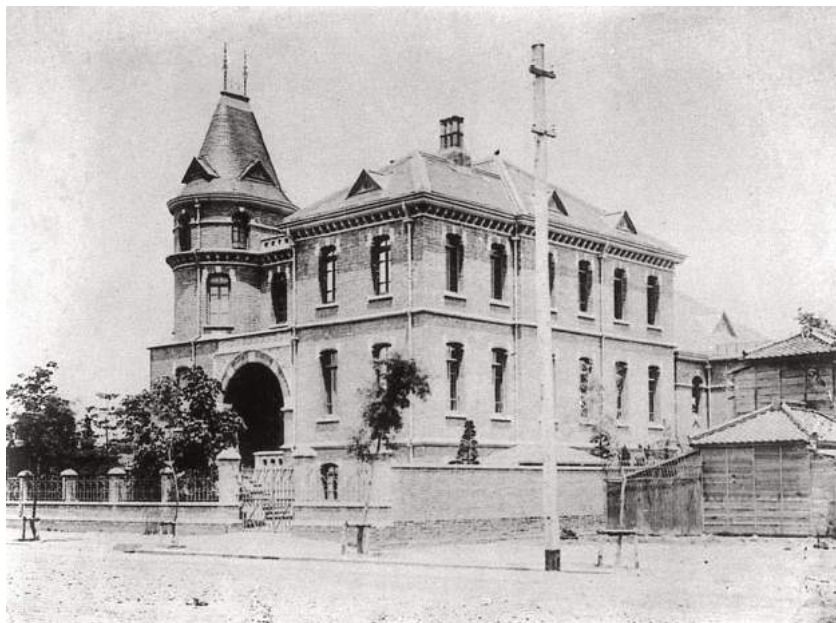


Figure 3.14 The Tokyo Young Men's Christian Association exterior, opened in 1893, the hall used for concerts was located behind the part of the building seen here.

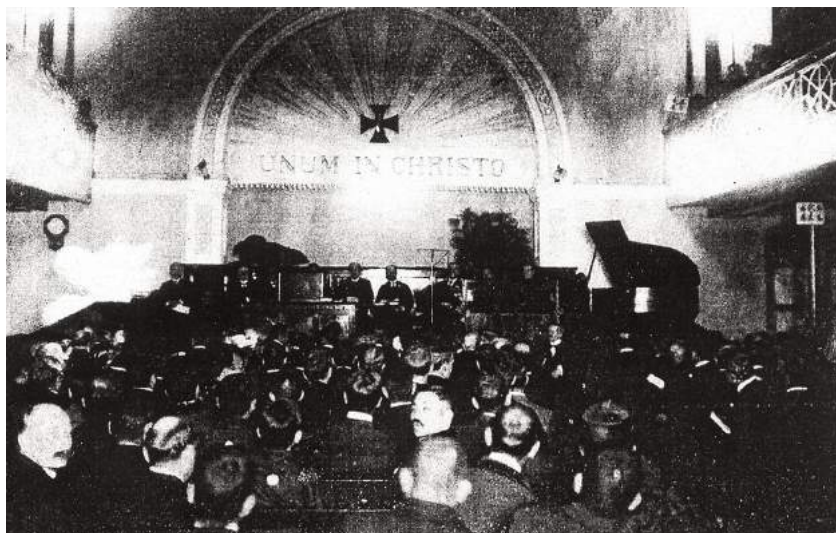


Figure 3.15 Interior the hall of the Tokyo Young Men's Christian Association, during a meeting in 1905.

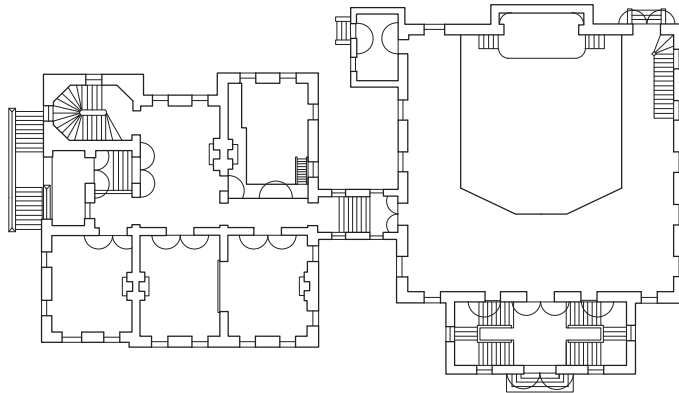
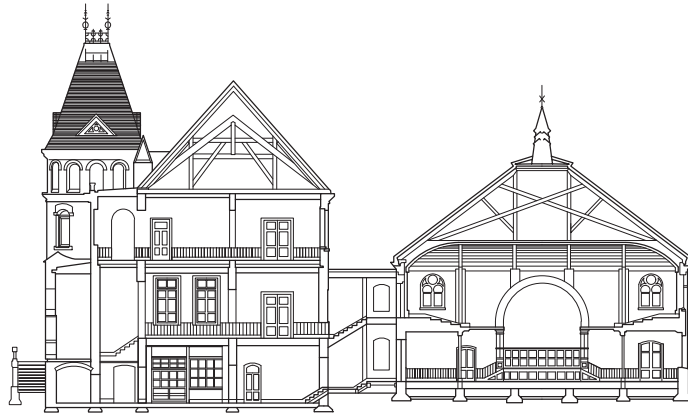


Figure 3.16 Section (top) and floor plan (bottom) of the Kanda Y.M.C.A, Scale = 1:500, the hall used for concerts was located in the rectangular part displayed here on the right side.

3.1.6. The Hibiya Park Bandstand

Because of its privileged location right next to the shogun's castle, Hibiya, once a fishing village, was inhabited by influential *daimyō* during the Edo period. From 1868, the government requisitioned the land and used it as a parade ground (Havens 2011, 40). In 1903 it was transformed into a public park and became the “central park of the city” (Seidensticker 1983, 122). The park was opened with a formal ceremony on Wednesday, June 1, 1903. The bandstand was not yet finished at this time. The opening included invited guests such as Shibusawa Eiichi and Ōkura Kihachirō. After an official address in the morning, the park was opened to the general public from 1 p.m.²⁵⁶ Bandstands were a prominent part of the park culture that was imported from Europe in the Meiji era (The situation in England was summarized by Rabbitts (2011)). The bandstand was opened roughly two years after the opening of the park, on Tuesday, August 1, 1905. An opening ceremony took place from 5 p.m. followed by music performances that “were mainly from European operas and were well rendered by the military band from the Toyama college, including some 50 performers.”²⁵⁷

This bandstand was located in the north-east of the park, close to the street facing the Imperial Hotel and the Rokumeikan (see Figure 3.24). A second bandstand would be opened in the east of the park, next to where the Hibiya Public Hall would be opened in 1929. The dimensions of the bandstand were summarized in an article in the *Yomiuri Shimbun*.²⁵⁸ The bandstand was octagonal in shape with a total floor space of 66 m², and featured a low baluster panel and an octagonal roof, rising about 1.9 m from the ground. After the first concert season, the bandstand was immediately renovated to improve listening conditions. At first no seats were available but later photos show benches arranged around the bandstand. It was used regularly by the Army and the Navy bands from the time of the opening in 1905 (Tanimura 2010). Concerning the question of how many people attended these concerts, it was mentioned in an article in the *Japan Times* that “at least 5,000 people, mostly of the younger generation, assembled to hear the concert at the Hibiya Park bandstand last night”²⁵⁹. A raised pavilion exists until today at the location of the first bandstand, but the original structure was destroyed in the Kantō earthquake. At that time, a new bandstand was already being built and a new location in the south west of the park (see Section 3.1.9).

²⁵⁶ *The Japan Times*,
June 2, 1903, 2

²⁵⁷ *The Japan Times*,
August 2, 1905, 6

²⁵⁸ *Yomiuri Shimbun*,
August 1, 1905, M.E, 3

²⁵⁹ *Japan Times*,
August 24, 1913, 4



Figure 3.17 The bandstand in Hibiya Park, opened in 1905. Photo from 1909.

3.1.7. The Imperial Theatre

The opening of the Imperial Theatre²⁶⁰ on March 1, 1911 can undoubtedly be described as a sensation for the cultural landscape in Tokyo at the time. The current third version of the Imperial Theatre is located at the east end of Hibiya Park, at Marunochi 3-1-1, Chiyoda, Tokyo, at the same location where the original Imperial Theatre opened its doors to the public on March 1, 1911. Plans to build a new theatre were first discussed in 1906 in talks instigated by former Prime Minister Ito Hirobumi²⁶¹ (1891–1909), and on March 9, 1907, a company to manage the theatre was founded, centred around the same men that were involved in the erection of the Rokumeikan and the Imperial Hotel, with Shibusawa Eiichi as chairman and Ōkura Kihachirō as director (Mine 1996).

The theatre was designed by Yokogawa Tamisuke (1864–1945)²⁶², a graduate of the department of architecture of the Tokyo Imperial University who had studied under Josiah Conder and Tatsuno Kingo²⁶³ (1854–1919). He had proven that he was capable of planning a Western-style theatre, with the design of the Yūroku-za theatre (Mine 1996, 149). Yokogawa was also responsible for the design of the Mitsukoshi department store which opened in 1915 at Nihonbashi. Both the Imperial Theatre and the Mitsukoshi department store became landmarks of the Taishō era. Later, Yokogawa founded an “electric meter research institute” which eventually resulted in the establishment of the Yokogawa Electric Corporation a company with some 20,000 employees today.

Yokogawa’s first sketches for the theatre date back to January of 1907, he presented a finished draft in June of the same year. Permission for the construction was granted a month later, and in March of 1908, Yokokawa, accompanied by Matsui Yasuo who had studied at the University of California and served as translator, departed for the USA and Europe to further study Western theatres (Kobayashi et al. 1997, 454).

In an article in the *New York Times*, dating back to this travel, he noted, that it was intended to present both traditional Japanese drama as well as European plays at the new theatre²⁶⁴. Contrary to what the name suggests, the theatre was not under direct patronage of the Emperor. Therefore, the *Japan Times* in the first months after its opening suggested to use the name “Empire theater”, a suggestion that did not hold up long.²⁶⁵

²⁶⁰ 帝国劇場
Teikoku Gekijō

²⁶¹ 伊藤博文

²⁶² 横河民輔

²⁶³ 辰野金吾

²⁶⁴ “Japanese are Here to Study Theatres,” *New York Times*, May 3, 1908

²⁶⁵ *The Japan Times*, February 11, 1911, 3



Figure 3.18 Facade of the Imperial Theatre, opened in 1911.

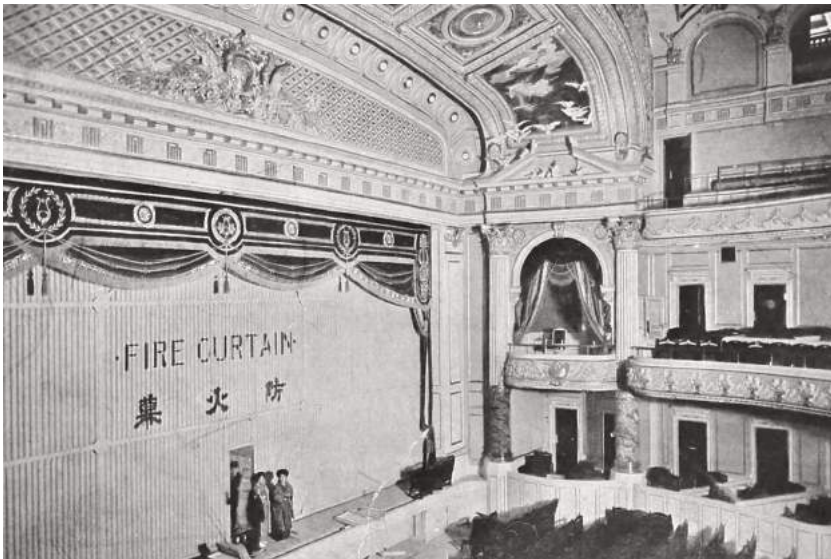


Figure 3.19]

The interior of the Imperial Theatre, showing the royal boxes in the back and the stage with the closed fire curtain.

The four-storey building in “French Renaissance style” was approximately 45.7 m wide along the front elevation, and had a height of 15.8 m in the front, while it extended to a height of 20.1 m at the stage-house. The façade was decorated with white painted bricks. The roof top featured a statue of a character, famous from a Nō play (Waseda daigaku engeki hakubutsukan 2002).

The request from the officials was to make the Imperial Theatre a sort of multi-purpose theatre providing the possibility to stage Japanese and Western theatre, but also music recitals and other genres. Yokogawa was not happy about these requirements and expressed his worries about the difficulty of the task to accommodate all the requirements (Mine 1996, 155).

The inside of the theatre was laid out as a symmetrical, horseshoe-shaped auditorium with a capacity to accommodate 1,700 people featuring upholstered chairs in the stalls and the first floor balconies and wooden benches on the second and third floor balconies. On the first floor on both sides of the 14.5 m wide proscenium, private royal boxes were available, reserved for members of the Imperial family. Open public boxes were available on the first and second floor. The visual impression was dominated by walls and pillars painted in gold and the upholstered chairs covered with dark red velvet. In an article in the Japan Times it was remarked that “old theatre goers of Tokyo who have been used to sitting on hard matting and in narrow boxes will surely enjoy the change to soft chairs and plenty of room.”²⁶⁶ Inspired by the Opera Garnier, the ceiling featured a painting depicting a sky scene by Wada Eisaku (1874–1959)²⁶⁷, a famous painter at the time who later, from 1932 to 1936 became director of the Tokyo Fine Arts School²⁶⁸. In his “present day impressions of Japan”, Morton Cameron described the interior and saw “many fine points” (Morton-Cameron et al. 1919, 407)

As mentioned previously, the auditorium was required to enable both Western and traditional Japanese plays, so some sacrifices had to be made for the sake of this flexibility. Typical Kabuki theatres provide a walkway²⁶⁹, which is indispensable for the plot of classical Kabuki plays. A walkway that could be installed if necessary for such a play was provided, which had a length of approximately 7 m, roughly half the length of a *hanamichi* found in traditional Kabuki theatres (Büttner et al. 2019). Apart from that, it featured a revolving stage with a diameter of 14.5 m, and an orchestra pit. The orchestra pit was the first one in a theatre in Japan, located in front of the stage at floor level of the stalls (Mine 1996, 27).

²⁶⁶ *The Japan Times*,
February 11, 1911, 3

²⁶⁷ 和田英作

²⁶⁸ 東京美術学校
Tōkyō Bijutsu Gakkō

²⁶⁹ 花道
hanamichi

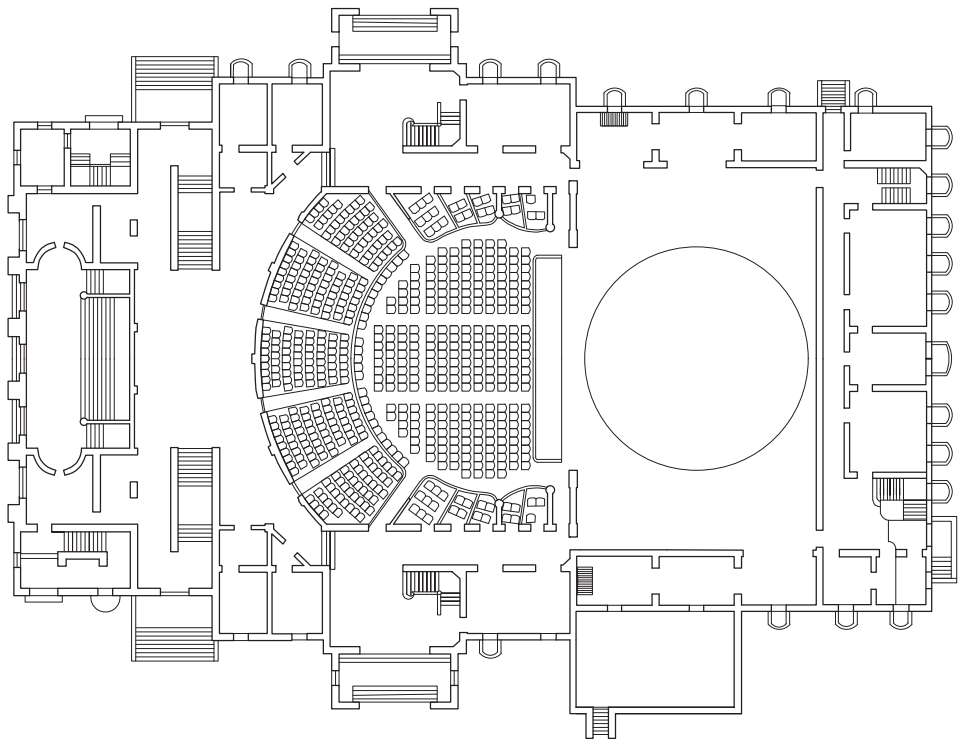
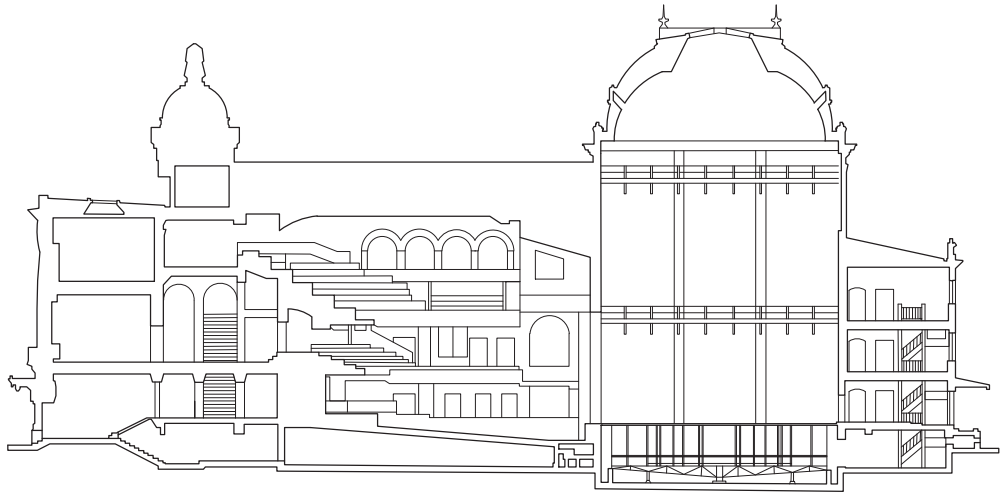


Figure 3.20 Longitudinal section (top) and floor plan of the ground floor (bottom) of the Imperial Theatre, Scale = 1:500.

An orchestral department attached to the theatre was established under the direction of August Junker and Heinrich Werkmeister. The department began rehearsing on September 1, 1910, one year before the opening of the theatre. At the outset it had 24 students, some of them being complete beginners (Mine 1996, 238). Orchestral music was performed regularly at the theatre, most notably by the orchestral department of the Tokyo Philharmonic Society under Yamada Kōsaku (see page 143).

When the Great Kantō Earthquake struck Tokyo on Saturday, September 1, 1923, the theatre survived the initial quakes but suffered considerable damage through fires spreading from adjacent buildings. Renovations were started shortly after, overlooked by Yokokawa Tamisuke himself, and the *taishō teigeki*²⁷⁰ was opened again on October 25, 1924. This second version was mostly used for theatre plays and more and more for films, but not for concerts. It was closed in January of 1964, and two and a half years later, a completely new 9-storey structure, opened with a performance a Kabuki play on September 21, 1966.²⁷¹ This third version of the theatre, designed by Taniguchi Yoshiro²⁷² (1904–1979), professor emeritus of the Tokyo Institute of Technology is open until today.

²⁷⁰ 大正帝劇,
the Taishō period
Imperial Theatre

²⁷¹ *The Japan Times*,
September 20, 1966, 8

²⁷² 谷口吉郎

3.1.8. The Nanki Auditorium

The story of the Nanki Auditorium²⁷³ is an interesting if short case, it existed from 1918 to 1923. It is interesting because in the period of investigation it is the first hall in the private sector built primarily for symphonic concerts. It is also interesting because it was built with the involvement of the Tokugawa family, which de facto ruled Japan from 1603 to 1868. The story begins with Tokugawa Yorimichi²⁷⁴ (1872–1925), of the Kishū-Tokugawa family²⁷⁵ one of the three Tokugawa family branches, descended from the youngest sons of Tokugawa Ieyasu and therefore equipped with certain privileges. Yorimichi had travelled to Europe and the United States and had studied at Cambridge University for two years. After his return to Japan, he commissioned the construction of a library, which was completed in 1908 on his property in Tokyo's Azabu district.

The library was called the “Nanki Library²⁷⁶”. The two characters of the word “Nanki” reflected the connection to the Tokugawa family. The character *nan* or south (南) referred to the southern province of Kii, today's Wakayama Prefecture, the former dominion of this branch of the family. The character *ki* or hollyhock (葵) expressed the connection to the Tokugawa family through the hollyhock leave, which is part of the Tokugawa family crest. With this library, a large collection of books in possession of the house of the Tokugawa, all together around 80,000 volumes were made accessible to the public.²⁷⁷

His son, Tokugawa Yorisada²⁷⁸ (1892–1954) also studied at Cambridge University. He studied music and it is said that during his time at Cambridge University, his desire to build a concert hall emerged. Yorisada is quoted as saying that:

The music to be performed in my hall should not be popular music. You can hear popular music everywhere, but you cannot listen to elegant music. I would like a few people who are serious about music to listen to music of the highest quality.²⁷⁹
(Murakami 2012, 95)

During his stay in England in 1914, he engaged the London born architect Sir Alfred Brumwell Thomas (1868–1948) to provide a first draft. Yorisada received these plans back in Japan in 1917, which were then revised by the American missionary and architect William Merrel Vories (1880–1964), to adapt these first drafts to the climatic and seismic conditions in Japan.

²⁷³ 南葵学堂

²⁷⁴ 徳川頼倫

²⁷⁵ 紀州徳川家

²⁷⁶ 南葵文庫

²⁷⁷ *The Japan Times*,
October 9, 1908, 6

²⁷⁸ 徳川頼貞

²⁷⁹ 私のホールで演奏する音楽は通俗的なものではなくしたい、通俗的の音楽はいくらも他で聞くことはできるし、それでは立派な音楽はできない、なるべく高級シュミの音楽を極めて熱心な真面目な少数の人に聞いてもらいたいと思う

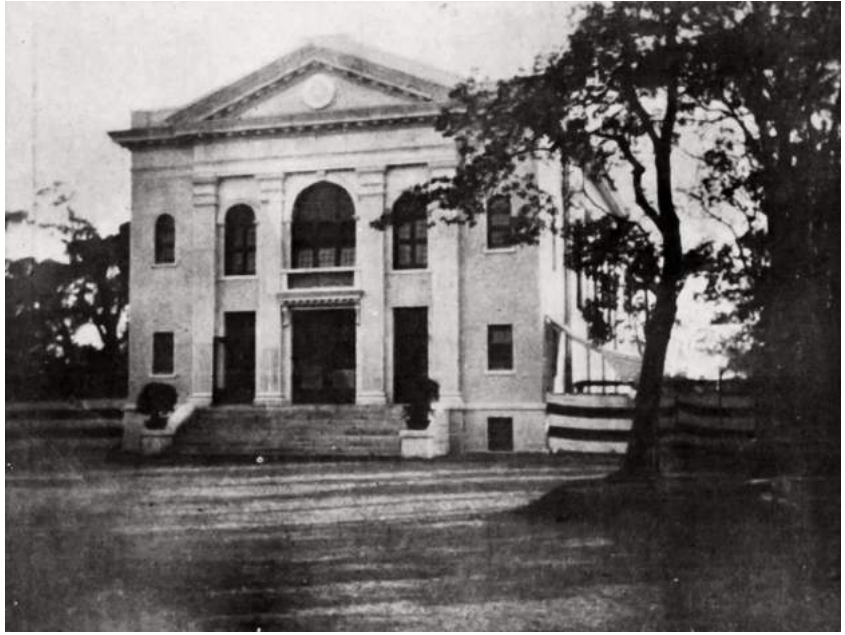


Figure 3.21 Façade of the Nanki auditorium, opened in 1918 on the premise of the Tokugawa family in Azabu.



Figure 3.22 Interior of the Nanki auditorium

William Merrell Vories was born in Kansas in the United States. He came to Japan in 1905 as a English teacher, and engaged himself in missionary work. In 1918 he founded the Omi Mission in Omihachiman, Shiga prefecture, and a year later he married Hitotsuyanagi Makiko²⁸⁰ (1884–1969) (Lyon 2003, 37). In 1908 he started his architecture practice and opened “Vories & Co.” which still exists today. Concerning the engagement in the design of the concert hall he wrote: “With the dedication of Marquis Tokugawa’s Music and Lecture Hall, in Tokyo, our architectural department achieved a phenomenal success that is likely to mean a great increase in its patronage”. The hall was also located on the property of Tokugawa Yorimichi and opened with the name Nanki Auditorium²⁸¹ in October of 1918, with a performance by the the Naval band, and members of the Academy of Music (Tō bungakukai 1957).

280 柳満喜子

281 南葵学堂

The auditorium was rectangular in shape when looking at the floor plan with a small gallery at the rear end, and covered a floor space of approximately 270 m². The whole ceiling was however not rectangular but curved with a wide semi-elliptical shape. Looking at Vories biography, he did not receive any professional training in architecture or acoustics but he seemed to have been curious about the topic, noting that “nothing is of greater importance in such an auditorium than good acoustics. Nothing is more of a problem, either, than good acoustics in a concrete shell” (Vories 1918, 173–74). The basic structure of the building was made of concrete, but the inside wall were all finished with absorbing materials of different kind. The interior ceiling was made of a Hy-Rib structure finished with felt. Vories also noted that “the papers of Japan have been heralding our solution of the echo-problem as a great discovery”. According to Vories himself, the auditorium had 350 upholstered seats and a platform for an orchestra of 70 musicians.

In its short time of existence from 1918 to 1923 the hall was used regularly for symphonic concerts. At least 25 orchestral concerts were carried out by mixed orchestras consisting of musicians of the Academy of Music as well as musicians from the Yokohama Orchestral Society (Tō bungakukai 1957). A projector can be found in the longitudinal section of the building and the description of the building mentions film projection devices so use as lecture hall or film theatre seemed to have been desired as well.

The Nanki auditorium was severely damaged in the Great Kantō earthquake of 1923. It was not rebuilt afterwards, but demolished in 1931. The pipe-organ was donated to the Tokyo Academy of Music and installed in the auditorium of the Academy in 1928 (Azabu Regional City Office 2018, 3).

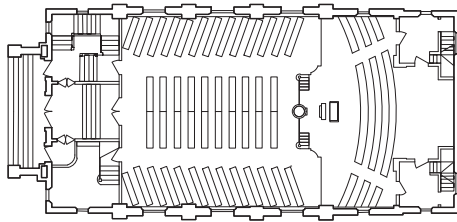
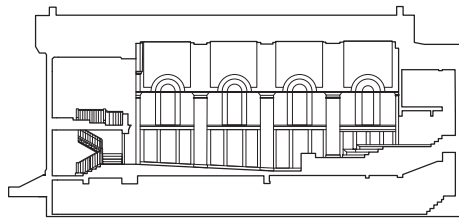


Figure 3.23 Longitudinal section (top) and floor plan (bottom) of the Nanki Auditorium, opened in 1918, Scale = 1:500.

3.1.9. The Hibiya Park Bandstand

A new bandstand was opened at the east of the park in 1923. This auditorium was a new approach to the open-air bandstand and resembled open-air stages like the Hollywood Bowl, which itself was opened on July 11, 1922. The raised stage was surrounded by a large “orchestra shell”, and wooden benches were provided for the audience extending outwards in an upwards sloped shape. The opening concert took place on Saturday, July 7, 1923 (just 8 weeks before the Kantō earthquake struck Tokyo) and was repeated on the following day. It featured a concert by a mixed orchestra of the Army, Navy and Mitsukoshi boys bands. The concert ended with a performance of the overture of *Tannhäuser* by Richard Wagner, performed by the members of all bands in one orchestra.²⁸² The new bandstand is described in detail in the *Journal of the Institute of Japanese Architects*, including photos and drawings.²⁸³ The orchestra shell was made of reinforced concrete, and had a height of 11.2 m and a width of 27.2 m. The structure was referred to as the “New Hibiya Park Bandstand”.²⁸⁴ The bandstand was used frequently by the Army and Navy bands (Tanimura 2010). Later it was also used for the promenade concerts of the New Symphony orchestra during the summer break.

²⁸² *The Japan Times & Mail*, July 9, 1923, 8

²⁸³ *Journal of the Institute of Japanese Architects*, 445, July 25, 1923, 63

²⁸⁴ 日比谷公園新音楽堂 *Hibiya kōen shin ongakudō*

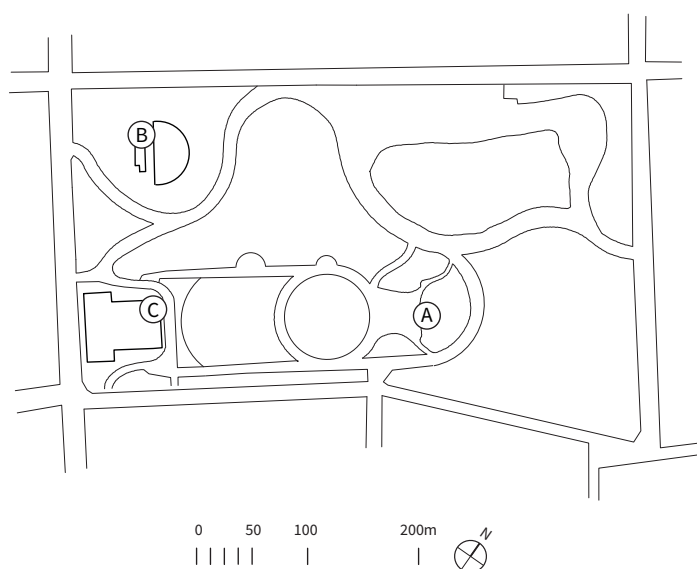


Figure 3.24 Drawing of the Hibiya Park from 1934, showing the location of the first bandstand opened in 1905 (A), the second bandstand opened in 1922 (B) and the Hibiya Public Hall, opened in 1929 (C).

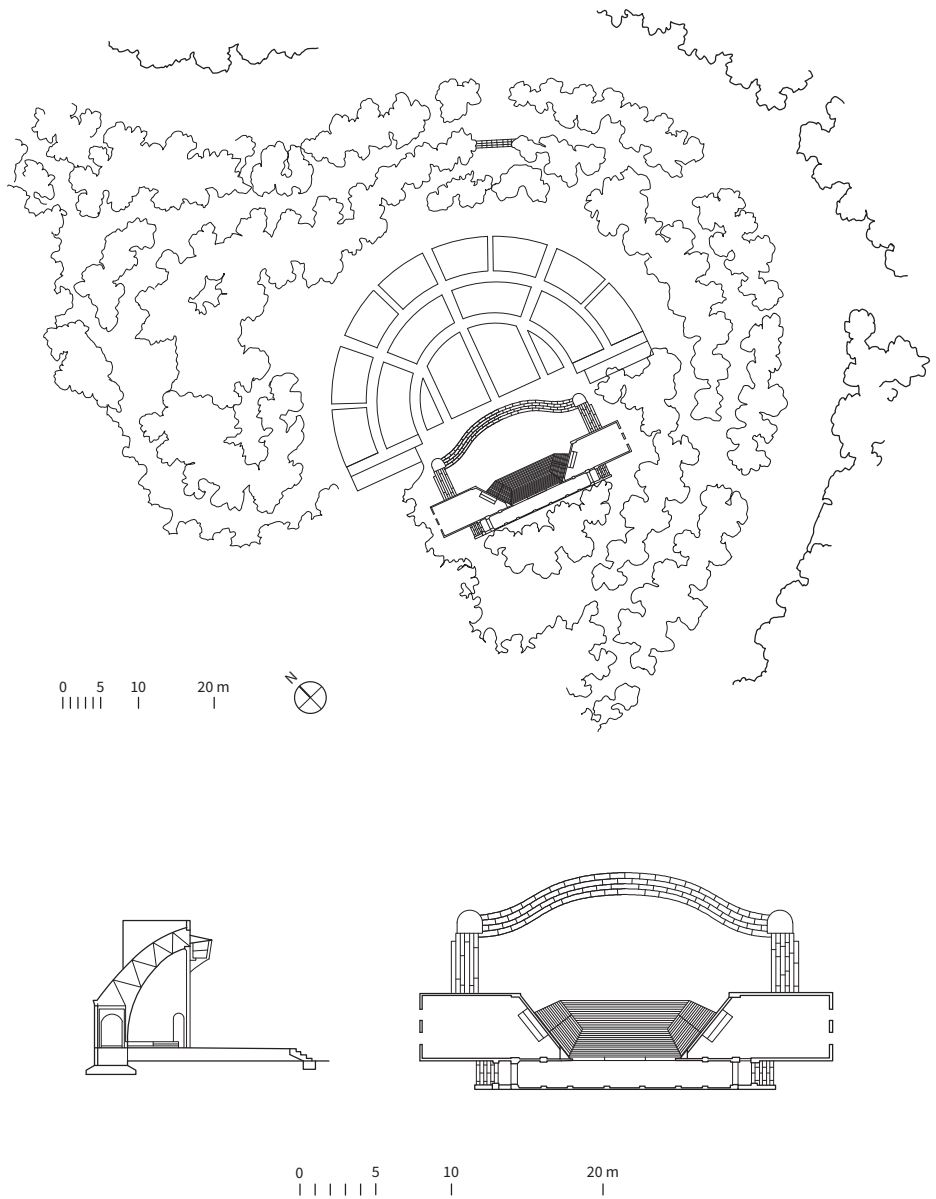


Figure 3.25 Drawings of the new bandstand at the Hibiya Park, opened in 1922. Scale (top) = 1:1000, Scale (bottom) = 1:500

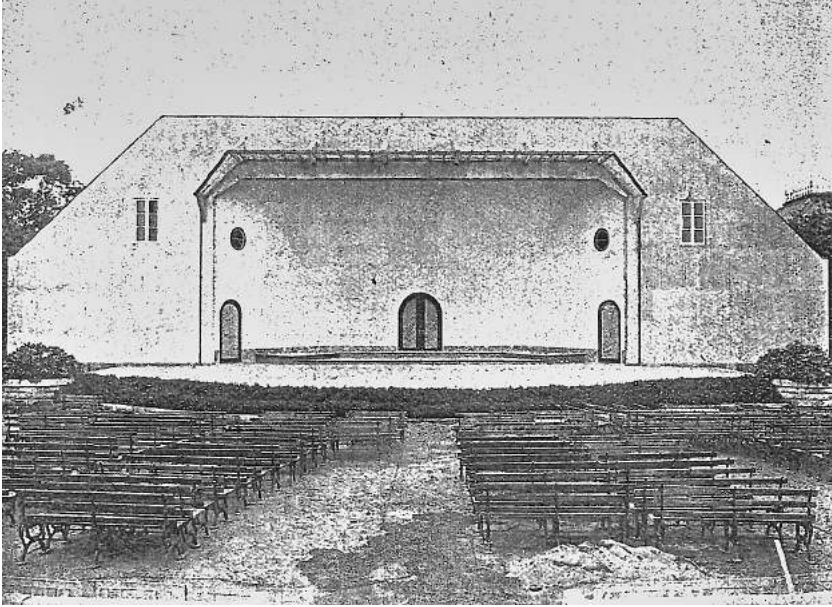


Figure 3.26 Orchestra shell of the bandstand in Hibiya park, opened in 1922.



Figure 3.27 Wooden benches of the bandstand in Hibiya park, opened in 1922.

3.1.10. The second Imperial Hotel

When the first Imperial Hotel building burned down on April 16, 1922, a new hotel was already under construction on the same premise to the east of the first building, based on plans by Frank Lloyd Wright (1867–1959), which introduced a completely new appearance to the hotel. The main entrance was now facing Hibiya park. The opening of the new hotel was originally planned for 1920, but was postponed several times. With the old building gone, the pressure to complete the new hotel was even greater.²⁸⁵

²⁸⁵ *The Japan Times & Mail*, April 17, 1922, 1

Wright was recommended for the task by the Chicago art critic and collector of Japanese prints Frederick William Gookin (1853–1936), who knew Wright as an accomplished architect and Japanese art lover (“Frank Lloyd Wright and the Imperial Hotel: A Postscript” 1985). His first visit to Japan took place in 1905 at the age of 38. In 1913, he returned to Japan to negotiate the details of his commission for the new Imperial Hotel and conduct an on-site inspection. After that he left Japan to work on the plans in the United States. When the drafts got accepted in 1918, he returned to Tokyo and brought Czech American architect Antonin Raymond (1888–1976) and the engineer Paul F.P. Mueller (1864–1934) as the engineering supervisor (Kirishiki 1968, 135). Wright and Mueller knew each other from a shared time at the office of the Chicago architectural firm of Adler & Sullivan, where they worked together on the “Auditorium building”. Since then, Wright had relied on Mueller as structural engineer in multiple projects (Saint 2003, 159). The day the Great Kantō earthquake struck, on September 1, 1923, was the day scheduled for the opening of the new Imperial Hotel. On September 13, Wright, who had left for the United States in July of 1922 after the north wing of the building had been completed, received a telegraph by Ōkura Kihachirō²⁸⁶ (1837–1928), with the now famous message that the building had survived the earthquake.

²⁸⁶ 大倉喜八郎

The building was made up of a combination of different materials. The core construction consisted of steel and reinforced concrete. The concrete was covered with yellow-ochre tiles scratched vertically, while a soft lava stone called Ōya stone²⁸⁷ was used for details and decorations. The interior of the building was abundantly decorated so that the interior planes seldom formed a flat surface (Akashi 1972). The entire building rested on a free-floating foundation conceived for earthquake safety (James 1968, 18–19). The appearance of the building was described by Wright as follows: “This building — the new Imperial Hotel of Tokyo — is not designed to be a Japanese building: it is an artist’s tribute to Japan, modern and universal in character” (as cited in Pfeiffer 1992, 162).

²⁸⁷ 大谷石 Ōya ishi



Figure 3.28 Photo of the Imperial Hotel, which opened in 1923, designed by Frank Lloyd Wright.



Figure 3.29 Interior of the ball room on the third floor of the Imperial Hotel, opened in 1923.

The hotel quickly became the favoured destination for artists and other celebrities from the West. Since many performance spaces such as the Hi-biya Public Hall and a number of theatres were located in the immediate vicinity of the hotel, it became the starting point for the cultural life of pre-war Tokyo. Write himself wrote: “The Imperial Hotel [...] is not designed as a profitable undertaking in the ordinary commercial sense, but it is so as a distinguished center of social entertainment for the life of the capital” (as cited in Pfeiffer 1992, 176).

While the auditorium extending from the first to the second floor of the building was used mainly for solo recitals or smaller ensembles, the banquet hall on the third and fourth floor was used for orchestral performances, most notably the first concert of the Tokyo Symphony Orchestra²⁸⁸, formed in 1923 by the Russian conductor Jaques M. Gershkovitch (see Section 2.2.3). During diner events, a smaller orchestra played on the orchestra gallery available in the banquet hall, but for special concerts, the orchestra was located on the floor. In the Japan Times it was written that “the beautiful ballroom lent itself admirably to the occasion. The lighting, the coloring, the seating arrangements and the acoustics could hardly have been better”. A capacity of the ball-room is not specified but the Japan Times wrote about “more than one thousand music lovers of Tokyo, who completely filled the beautiful and spacious ball-room of the Imperial Hotel”²⁸⁹

In the air raids of May 25, 1945, the Imperial Hotel was severely damaged. The central part of the main building, the south wing guest rooms, the banquet hall and the complete annex was destroyed (Tōkyō-Teikoku-Hoteru 1990, 164). The occupation forces requisitioned the hotel in September of 1945. The American corps of Engineers renovated the banquet hall, which was finished in June 1946 (Tōkyō-Teikoku-Hoteru 1990, 184). The hotel was returned in April of 1952. Plans to build a new hotel started in 1959. A discussion followed what to do with the Wright building, and it was eventually decided to preserve the entrance lobby of the building at the open-air architecture museum Meiji Mura in Inuyama, Aichi prefecture.²⁹⁰ Despite protests it was closed and torn down in 1967. The auditorium and the banquet hall were not preserved. A new 17-storey building was opened in the location of the former Wright hotel, on March 10, 1970. While the Wright hotel had 280 rooms, the new hotel now featured 772 rooms in the main building plus 361 in an additional building.

²⁸⁸ in the Asahi Shimbun it was called the 東京シンフォニーオーケストラ, *Asahi Shimbun*, April 15, 1923, M.E., 6

²⁸⁹ *The Japan Times & Mail*, April 13, 1923, 3

²⁹⁰ *The Japan Times*, February 6, 1968, 3

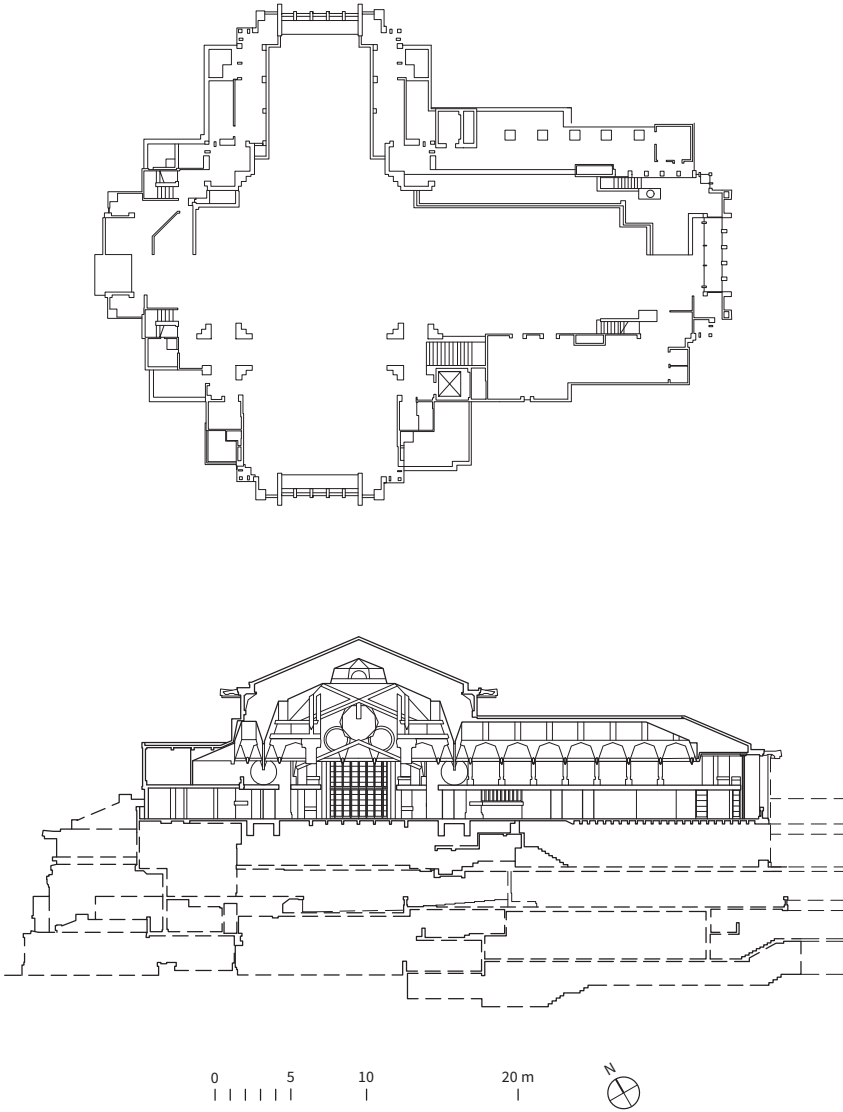


Figure 3.30 Floor plan (top) and longitudinal section (bottom) of the second Imperial Theatre designed by Frank Lloyd Wright, Scale = 1:500.

3.2. Concert venues after Kantō Earthquake

The repercussions of the earthquake led to an almost complete abandonment of brick construction in Japan, which was representative of the buildings of the Meiji period. Reinforced concrete, in particular, became the most commonly used material (Meid 1977, 319–20). As this construction period coincided with the rise of mass media and electro-acoustic amplification, the new auditoria had to meet new requirements. While this shift to new buildings also took place in other cities, this transition was especially drastic in Tokyo due to the Kantō earthquake. The buildings that were used for symphonic concerts after 1923 can be categorized as theatres, public halls, auditoria in company buildings, school auditoria, and open air auditoria. A large number of theatres were built in the period after the Earthquake. Ōtani Takejirō's Shōchiku enterprise was responsible for the more traditional Kabuki centred theatres, while Kobayashi Ichizō's Takarazuka enterprise was responsible for the erection of more modern theatres. Many universities and schools built new auditoria in this time, many of them were used for music performances but most of them not at all or not frequently for symphonic concerts.

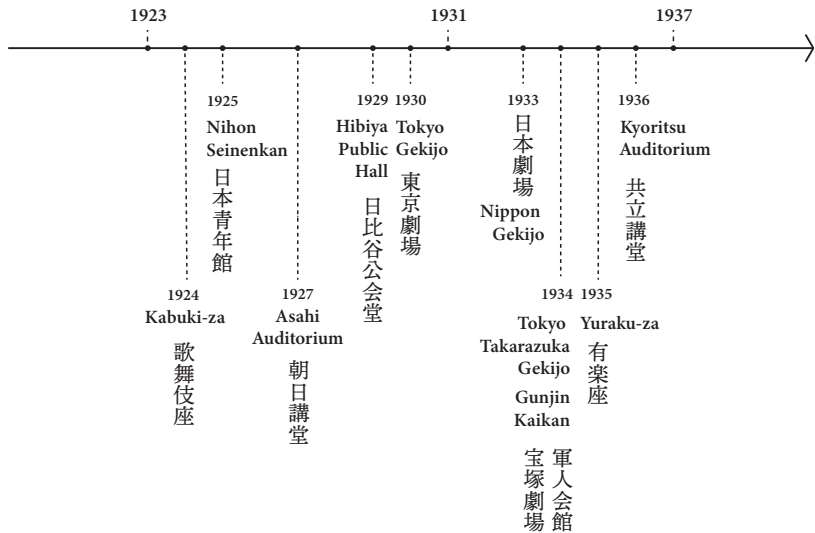


Figure 3.31 Timeline, showing the rooms identified as venues for symphonic concerts in Tokyo between the Great Kantō earthquake in 1923 and the end of the Second World War in 1945

3.2.1. The Kabuki-za

The history of the Kabuki-za involves five different buildings, which all existed on the same site in what is today the Ginza district (during the Meiji period called Kobiki-chō). The fifth version of the building today still occupies the same location.

The first building, opened in 1889 was built due to the initiative of theatre reformer Fukuchi Gen'ichirō²⁹¹ (1841–1906) and featured a Western façade, while the interior was furnished like a traditional Kabuki playhouse. Fukuchi was a member of the “Theater Improvement Society”²⁹², which was established under the guidance of the government. The two-storey brick building was about twice the size of the three big Edo theatres (see page 18) with a capacity of approximately 2,000 people (Ishiyama 2013, 2–4).

In 1911 the original building was replaced by a new structure. To distinguish it from the Imperial Theatre, which was opened the previous year in a completely Western style, the Kabuki-za was built with a Japanese style façade. From this second building the gable roofs that can still be found in today's façade, were applied. Ōtani Takejirō²⁹³ (1877–1969) of the Shōchiku enterprise came to Tokyo in 1910 and purchased the Shintomi-za. In 1914 he also appropriated the Kabuki-za. Seven years later, this second building burned down completely in 1921, in a fire caused by a short-circuit.

Ōtani intended a speedy reconstruction. The design was provided by Okada Shinichirō²⁹⁴ (1883–1932), the construction was carried out by the Ōbayashi construction company of Osaka, and the construction of the new building started in June 1922. Based on the experience gained from the last fire, reinforced concrete was now used to make the building fireproof (Kawamura 1936, 210). The building was almost ready to be opened when the Kantō earthquake struck on Saturday, September 1, 1923 (Ishiyama 2013, 96–97). The reconstruction began in February of 1924 and the opening of the new building took place on December 15, 1924. The new Kabuki-za was heralded as “a revelation to theater-goers who enter it for the first time” and as “the most modern theater building in Japan”.²⁹⁵ Despite the use of reinforced concrete for this third version of the building, the distinctive Japanese appearance was retained. Inside the reinforced concrete shell, the auditorium was covered with cypress wood and a coffered ceiling was introduced, supposedly inspired by the ceiling in the Mitsukoshi department store (Ishiyama 2013, 97).

²⁹¹ 福地源一郎

²⁹² 演劇改良会
Engeki kairyōkai

²⁹³ 大谷竹次郎

²⁹⁴ 岡田信一郎

²⁹⁵ *The Japan Times & Mail*, February 17, 1925, 2



Figure 3.32 Façade of the third version of the Kabuki-za, which was opened in December of 1924 and existed until it was destroyed in the air raids on Tokyo in 1945.

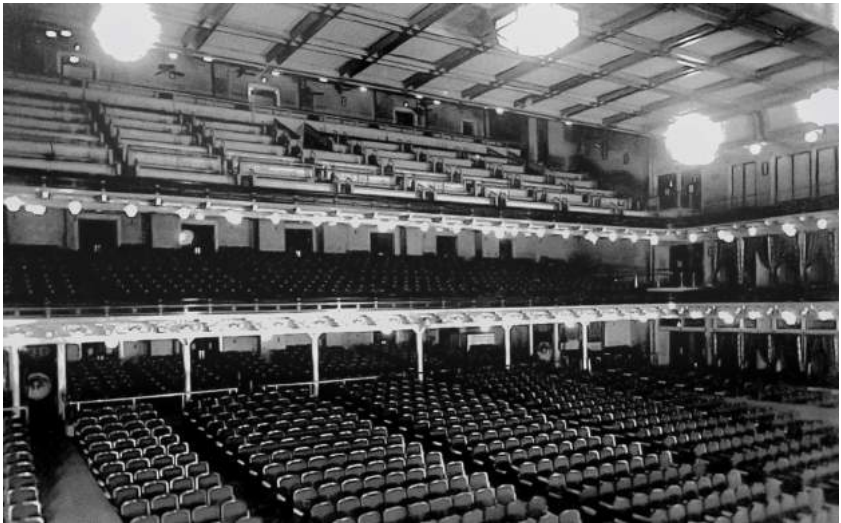


Figure 3.33 Interior of the Kabuki-za, showing the upholstered seats, which were introduced for the first time in this third version, the typical Kabuki playhouse pathway can be seen on the right side of the photo.

This third version of the building had a capacity of 2,474 seats. The interior of the theatre in principal followed the layout of a traditional Kabuki playhouse (Suwa 1999) including a main pathway²⁹⁶ on stage right and a secondary pathway²⁹⁷ on stage left, a rotating stage and boxes along the side of the stalls. These boxes were furnished with seating mats²⁹⁸. Different from the layout of a traditional Kabuki playhouse, the stalls and the area opposite to the stage of the first floor balcony were equipped with upholstered chairs.²⁹⁹ Therefore the Kabuki-za was equipped with everything necessary for the production of Kabuki plays, but also made it flexible enough to function as a multi-purpose venue, hosting orchestral concerts and other large events.

As a venue for symphonic concerts, especially this third version of the building, opened in 1924 was used. While orchestral concerts at the Kabuki-za were far less frequent than for example at the Nihon Seinekan or the Hi-biya Public Hall, it was used between 1923 and 1945 for special occasions when a larger venue was required. The famous Russo-Japanese concerts, a series of concerts on four successive days from April 26 to 29, 1925, took place at the newly opened Kabuki-za (see page 163). In 1940, a large number of events were planned all over the country to commemorate the 26th centenary of the founding of the Japanese Empire. On this occasion a concert took place at the Kabuki-za, on December 7 and 8, 1940 (see page 193). This shows that the Kabuki-za fulfilled the function of a national theatre during these years.

The third version of the building that is of interest here, was destroyed in the air raids on Tokyo in 1945. It was reopened again on January 3, 1951.³⁰⁰ While the dimensions were roughly kept the same, a new ceiling shape was introduced. The change of the flat coffered ceiling of the third version, to an elliptically shaped ceiling of the fourth version is said to have had a positive effect on the quality of acoustics, most likely speech intelligibility (Hayashi 2011). The post-war Kabuki-za closed its doors on Friday, April 30, 2010,³⁰¹ and the building was subsequently demolished to make space for a new fifth version of the building. It was reopened yet again three years later, in April of 2013. The current structure was designed by Kuma Kengo³⁰² (1951–), which essentially rebuilt the 1951 façade with a 29-storey skyscraper behind.

²⁹⁶ 本花道 *Hon hanamichi*

²⁹⁷ 仮花道 *Kari hanamichi*

²⁹⁸ 畳 *Tatami*

²⁹⁹ *The Japan Times & Mail*, February 17, 1925, 2

³⁰⁰ *Nippon Times*, January 1, 1951, 3

³⁰¹ *The Japan Times*, April 30, 2010, 3

³⁰² 隈研吾

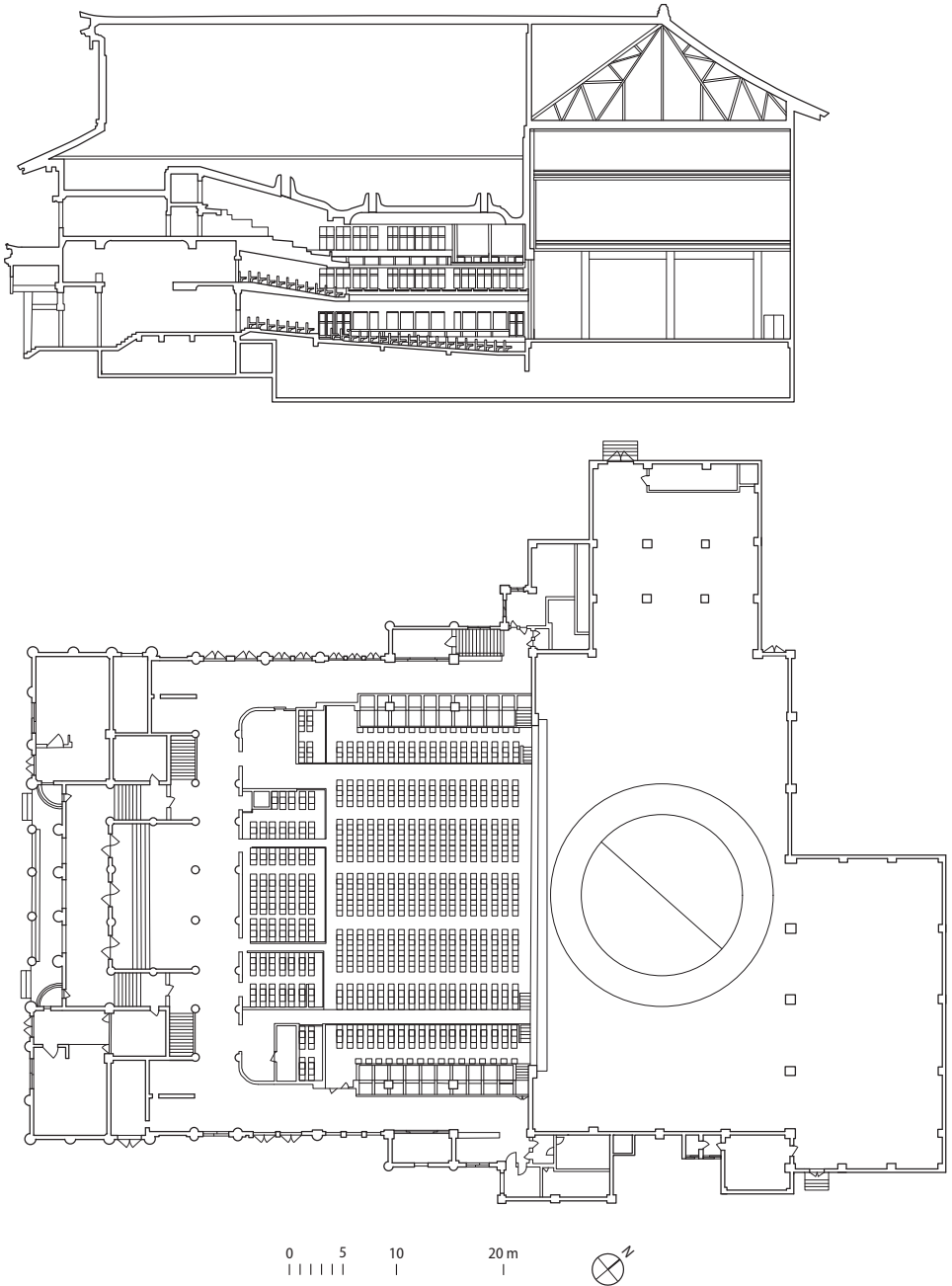


Figure 3.34 Longitudinal section (top) and ground floor plan (bottom) of the Kabuki-za in its third version from 1924, Scale = 1:700.

3.2.2. The Nihon Seinenkan

The opening of the Nihon Seinenkan in 1925³⁰³ must be understood in connection with the construction of the Meiji Shrine. The construction of the Meiji shrine³⁰⁴ started in May of 1915 and was completed in 1920. About 110,000 citizens from all over Japan voluntarily took part in the construction. In November 1920, the Crown Prince honoured the youth groups, that had participated in the construction by issuing a decree. This decree is considered to be the starting point for the decision to build a youth centre near the new shrine.³⁰⁵ The financial foundation for the building was secured by a donation of one yen from each member of all youth organizations throughout the country, which provided a substantial budget of 1,940,000 yen in total (Nihon seinenkan kanshi hensan iinkai 1991). The planning was supervised by Sano Toshikata (1880–1956)³⁰⁶ and Kobayashi Masaichi³⁰⁷ (1891–1973).

In the years following its opening, the Nihon Seinenkan auditorium was the central performance venue for symphonic music in Tokyo. This only changed when the New Symphony Orchestra moved its subscription concerts to the Hibiya Public Hall in 1932. From the foundation of the orchestra until the 112th concert on June 15, 1932, all subscription concerts had taken place at the Nihon Seinenkan. After this, other orchestras continued to use this hall frequently for symphonic concerts (see Section 2.2.4). The original building was praised for its good acoustics for music performances³⁰⁸ (see Appendix E.5), and the atmosphere was remembered as especially noteworthy (Konoe 1999, 228–229).

The building has been renovated and rebuilt several times. In the original state of construction, the auditorium featured two balconies at the rear end and had a capacity of 1,500 seats. Photos from the interior show permanently installed and slightly upholstered chairs with wooden armrests (Kimura 1925). No longitudinal section seems to have survived documenting the first stage of construction. The building did survive the air-raids on Tokyo in 1945. From 1945 to 1953 it was requisitioned by the occupying forces. On February 2, 1977, the old building was demolished. A new structure was completed in 1979 with a reduced seating capacity of 1,360 seats and only one balcony. In April 2015, a relocation of the Nihon Seinenkan was initiated in connection with the construction of a new stadium leading up to the Olympics in 2020. The 1979 structure was demolished and about 100 meters south, a new structure was built and opened on August 1, 2017, including a hotel and a concert hall with 1,249 seats on two floors.

303 日本青年館, lit. “Japan Youth Hall”, in the sources cited, the pronunciation “Nihon” was used, which is why it was used here. Today, the building is called “Nippon Seinenkan Hall”.

304 明治神宮
Meiji jingu

305 目的大正9年11月22日 皇太子殿下より旨を賜りたることを記念せんか為め青年館を建設し各般の施設を為し、以て修養の資に供せむとす (Kanshi hensan iinkai 1991, 6)

306 佐野利器

307 小林政一

308 *Yomiuri Shimbun*, November 14, 1935, M.E, 5



Figure 3.35 Façade of the Nihon Seinenkan at the outer gardens of the Meiji Shrine, opened in October of 1925.

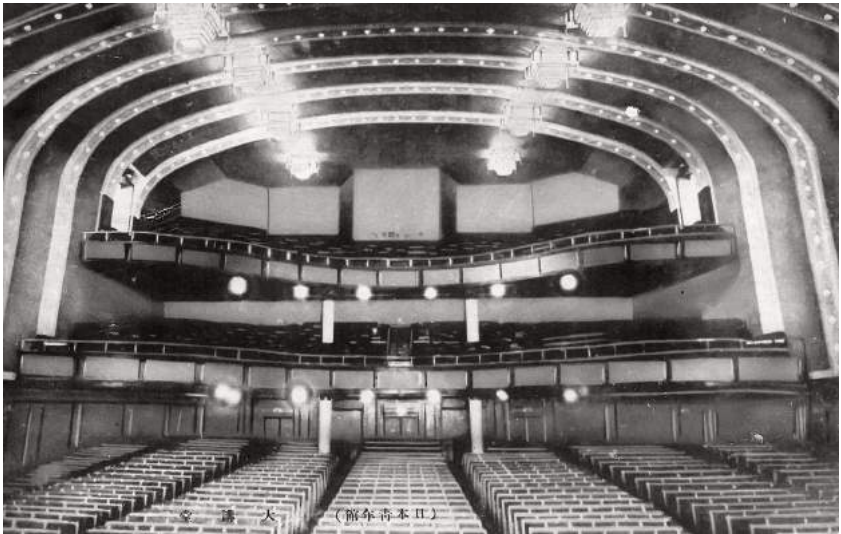


Figure 3.36 Interior of the Nihon Seinenkan, showing the two balconies at the rear of the auditorium.

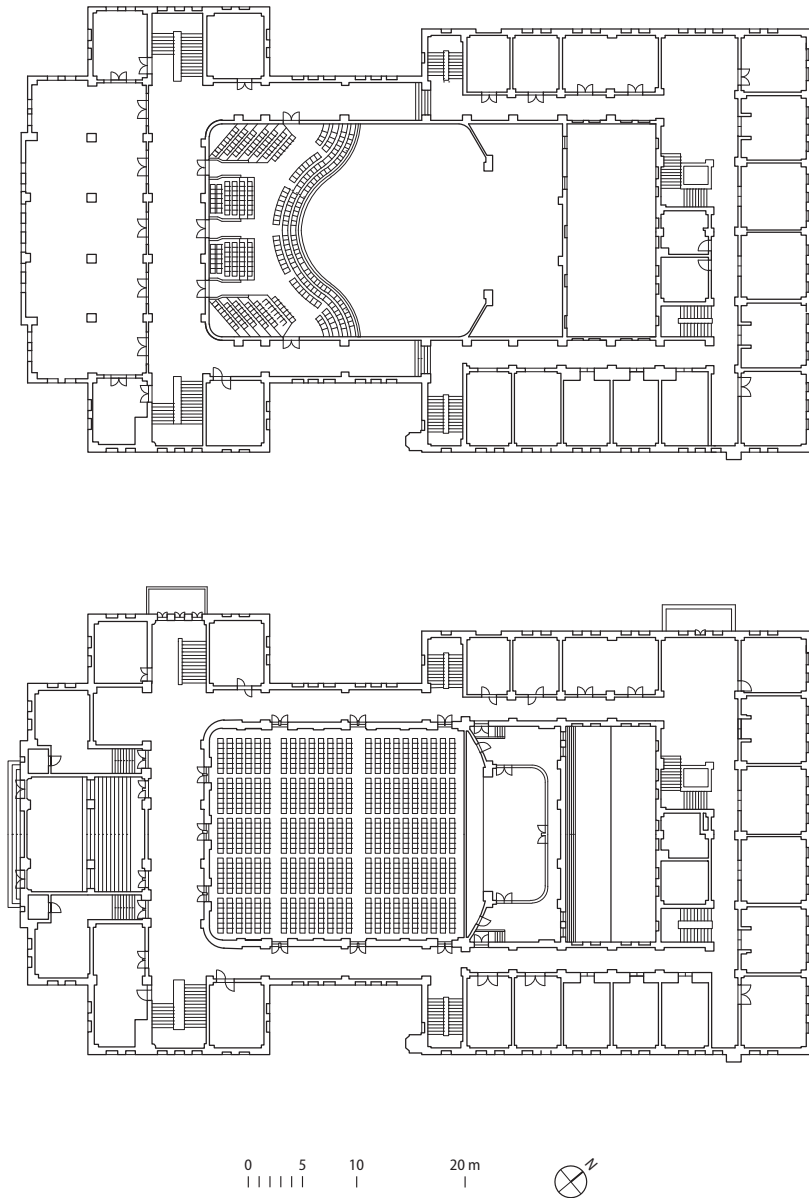


Figure 3.37 Ground floor (bottom) and first floor (top) plan of the Nihon Seinenkan, A longitudinal section of the original state of construction with two balconies could not be found. Scale = 1:700.

3.2.3. The Asahi Auditorium

The construction of the Asahi Auditorium was described in some detail in the Asahi newspaper.³⁰⁹ It was designed by Ishimoto Kikuji³¹⁰ (1894-1963). Ishimoto, during the time he was studying at the Tokyo University, was a member of the Secessionist Architect movement in the 1920s. From 1922 to 1923 he studied at the Bauhaus in Weimar. He designed the Asahi Newspaper building as an employee of the Takenaka Construction company, before starting his own practice, which exists until today.³¹¹ Construction started in March of 1925, the building was completed on March 19, 1927.

The Asahi newspaper building was located at Sukiya bridge, just south of Yūrakuchō station and together with the Nippon Gekijō, opened in 1933, formed an ensemble defining the spacial layout of “the Sukiyabashi square, or plaza, or whatever the congeries of streets and buildings may be named in the future”.³¹² The site is today occupied by the Yūrakuchō Marion³¹³, whose general layout still reflects the combination of the Nippon Gekijō and the Asahi building.

The auditorium was located on the sixth floor of the building and had a floor space of approximately 500 m². The Japan Times wrote about “an audience of approximately one thousand persons” at a concert of the New Symphony Orchestra, on Thursday, May 8, 1928 with performances of Schuberts Symphony No. 7, among other pieces.³¹⁴ In another article a seating capacity of 1,200 is specified.³¹⁵ Pictures from the interior of the building show a typical lecture room type of layout, with a rectangular floor plan and listener seats rising towards the rear part of the room. The photos also show lecture room type seats, probably slightly upholstered only at the seat part, which fold up when unoccupied. In the article in the Asahi Shimbun it is also described, that the auditorium had a stage of 10.6 m width, a height of 4.2 m and was raised 1 m from floor level.³¹⁶

The auditorium featured a variety of different programs from photo exhibitions to Nō performances, but was also used frequently by a number of orchestras for symphonic concerts. Both the Nichigeki theatre and the Tokyo Asahi Newspaper building were demolished in 1981 (Asahi Shimbunsha 1984). In the department store, which occupies its place today, a music auditorium called the Yūrakuchō Asahi Hall³¹⁷ can be found on the 11th floor.

³⁰⁹ *Asahi Shimbun*, April 4, 1927, M.E. 6

³¹⁰ 石本喜久治

³¹¹ today the “Ishimoto Architectural & Engineering Firm” is an international business with offices in all major Japanese cities as well as a United States office

³¹² *The Japan Times & Mail*, Dec. 24, 1927, 4

³¹³ 有楽町マリオン

³¹⁴ *The Japan Times & Mail*, Saturday, May 12, 1928, 3

³¹⁵ *The Japan Times & Mail*, April 27, 1927, 3

³¹⁶ *Asahi Shimbun*, April 4, 1927, M.E. 6

³¹⁷ 有楽町朝日ホール
yūrakuchō asahi hōru

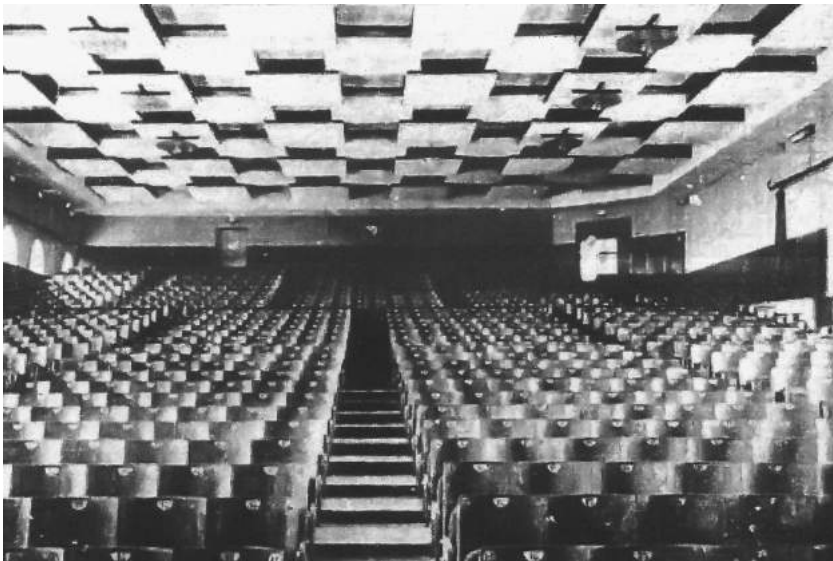


Figure 3.38 Interior of the auditorium of the Tokyo Asahi Newspaper building, opened in 1927.

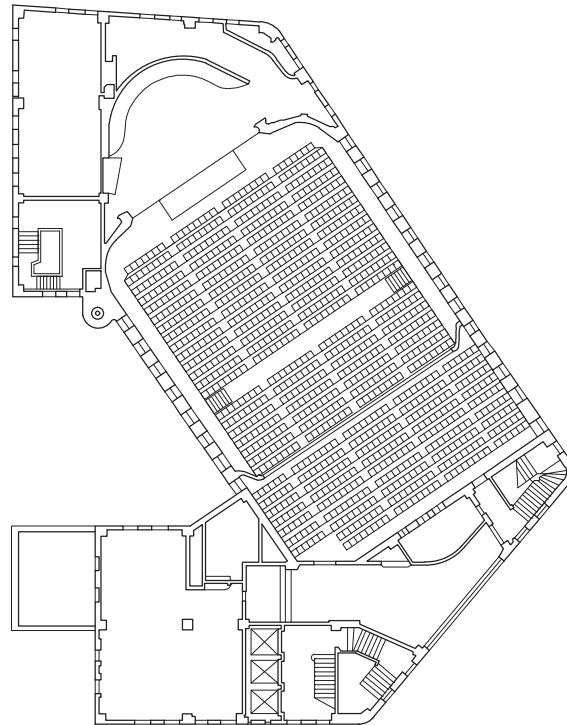


Figure 3.39 Floor plan of the auditorium of the Tokyo Asahi Newspaper building, opened in 1927. The auditorium was located on the sixth floor of the building. Scale = 1:700.

3.2.4. The Hibiya Public Hall

The necessity for the construction of a public hall in Tokyo was discussed as early as 1899. In the *Japan Times* it was lamented, that “in the Metropolis there exists at present no suitable public building that can be utilized by the citizens or even the Mayor himself for the purpose of holding assemblies or entertainments on a large scale, public and private” and it was mentioned, that “the Tokyo Municipal authorities are now contemplating [...] the erection of a large Public Hall somewhere in the middle of the Hibiya Park”.³¹⁸ On June 1, 1901, the *Japan Times* reported on the plans Hibiya park, which stated that “the north-eastern part will be reserved for a public hall capable of accommodating over 10,000 persons.”³¹⁹ Most likely due to the lack of sponsoring the plans for the public hall were put on hold, and the Hibiya park opened on June 1, 1903. The first public hall eventually opened in Japan, was the Osaka Municipal Public Hall³²⁰ for which the construction started in 1913 and the opening took place in 1918.

The construction of a public hall which would be called Hibiya Public Hall³²¹ in Tokyo ultimately became a reality with the financial supported of Yasuda Zenjirō (1838–1921),³²² one of the leading bankers at the time who had also funded the Yasuda Auditorium³²³ of the Imperial University (Itasaka 1983, 316). An architectural competition for the new building was carried out and a rectangular floor plan similar to the hall in Osaka was proposed as the starting point.

The commission for the planning of the building was awarded to two men who shared the same name but were not related. Satō Kōichi (1878–1941)³²⁴, the older of the two, was already a professor of architecture at Waseda University when Satō Takeo (1899–1972)³²⁵ enrolled there to study architecture. After graduating in 1924, he was appointed assistant professor and began working in Kōichi’s office (Yamazaki et al. 2006, 15). In 1925, Takeo published a study of the acoustics of the Takarazuka Grand theatre³²⁶ together with Kurokawa Kanezaburō³²⁷ (1893–1948). This theatre was planned by Washio Kuro³²⁸ (1893–1985) and opened in 1924. It had a capacity of 4,200 which could be extended to a size of 5,000 people, and was a novelty in Japan in that the ceiling was not flat, but extended from the stage towards the rear of the auditorium with a curved shape.

³¹⁸ *The Japan Times*, April 18, 1899, 3

³¹⁹ *The Japan Times*, June 19, 1901, 2

³²⁰ 大阪市中央公会堂
Ōsaka-shi chūō kōkaidō

³²¹ 日比谷公会堂,
Hibiya kōkaidō

³²² 安田善次郎

³²³ 安田講堂, *Yasuda kōdō*

³²⁴ 佐藤功一

³²⁵ 佐藤武夫

³²⁶ 宝塚大劇場
Takarazuka dai gekijō

³²⁷ 黒川兼三郎

³²⁸ 鷺尾九郎



Figure 3.40 Façade of the Hibiya Public Hall, opened in 1929 at the Hibiya Park. The entrance to the concert hall is at the rear of the building, looking at this image.



Figure 3.41 Interior of the Hibiya Public Hall.

After studying the Takarazuka theatre, he further developed this concept during the planning of the Waseda University Ōkuma Memorial Hall³²⁹, which was opened in 1927 on the Waseda campus in memory of the founder of the University, Ōkuma Shigenobu³³⁰ (1838–1922), who had passed away in January of 1922 (Kurokawa et al. 1925).

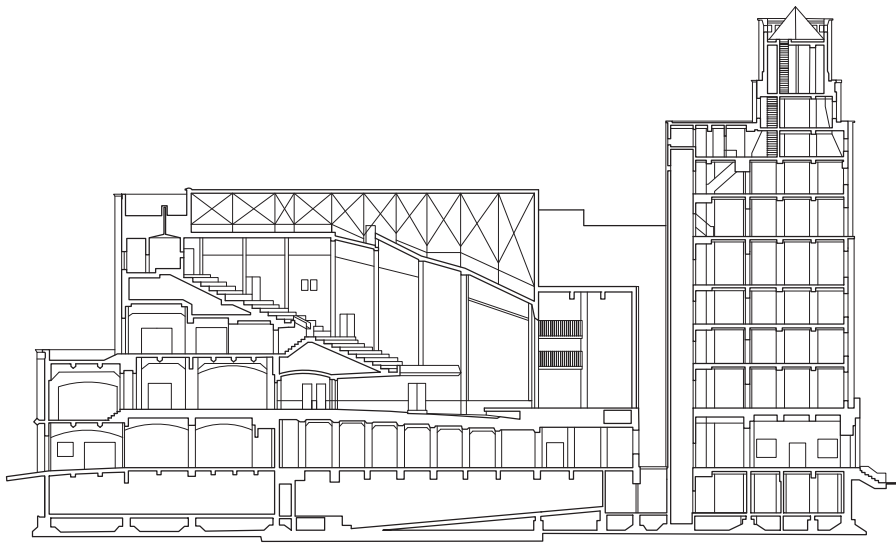
In an article in which he described the design of the Ōkuma Memorial Hall, Satō Takeo also outlined his acoustic principles. He stated three aspects as important for the planning of an auditorium, an even distribution of the sound intensity, an appropriate reverberation time for the intended purpose, and sufficient sound insulation to the outside of the auditorium. He cited the Michigan Hill Memorial Auditorium, the Salle Pleyel in Paris, the unrealised plans for the auditorium of the League of Nations building by le Corbusier and the Eastman Theater in Rochester as examples in which an even distribution of sound intensity had been achieved. For optimal reverberation times, he quoted Watson's suggestions for speech and music, but noted that one reverberation time requirement may not be suitable for all types of music. Instead, he suggested, that different types of music would require different reverberation times. However, when designing multi-purpose auditoriums that require a balance between longer reverberation times for music and shorter reverberation times for speech, he concluded, that a shorter reverberation time would be the best compromise.³³¹ (Satō 1929).

These principles were applied in the design of the Hibiya Public Hall, but Satō always emphasized that this auditorium was planned for speech. The hall does not have an orchestra pit but a stage tower, which may be taken as an indication that the theatrical performances should be made possible. Both the side walls and the ceiling above the audience are vaulted from the stage to the back of the audience area. The back of the stage is also angled at the sides. While the proposal for the competition included windows on the side walls, these were removed and an additional corridor was added, so that the side walls of the auditorium would not face the outside directly in order to enhance sound insulation. Upholstered seats were provided on the ground floor and the first floor balcony. The following materials were used in the room. The stage proscenium was made of marble. Black terracotta, insulating panels and various types of upholstery were used for the wall. The ceiling was covered with insulation boards and plaster. In areas with wood panelling, teak or cypress wood was used and painted with oil paint. Reflective surfaces on the walls and ceiling were provided with patterned plaster (Satō 1930).

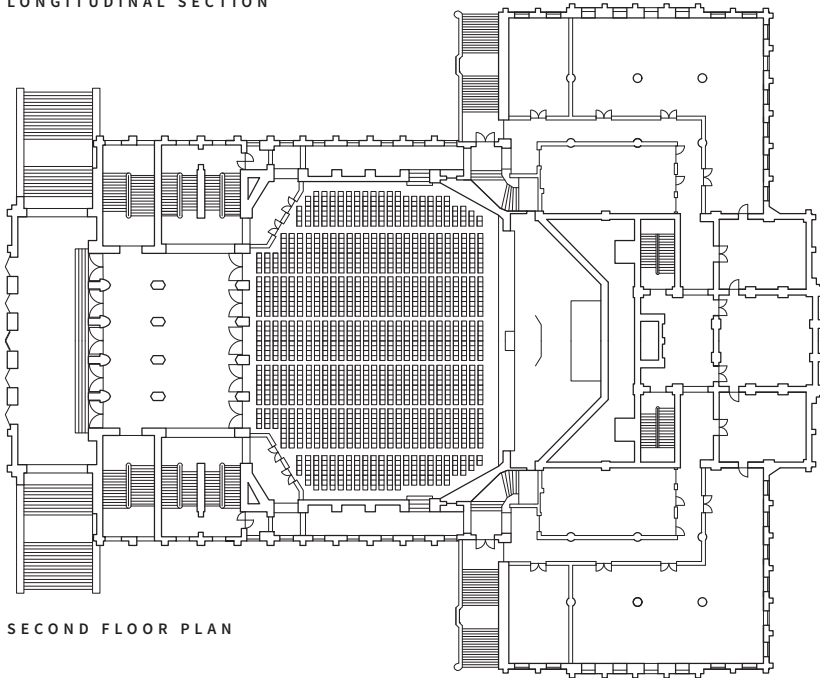
329 早稲田大学大隈記念講堂 Waseda daigaku Ōkuma kinen kōdō

330 大隈重信

331 概して演説に対して僅少なる余響を、音楽に対して大いなる余響を適当とすることは周知の事実であるが、この両者を兼用する場合にあっては、寧ろ小なる余響時間を採用するを以て安全なりと信ずる。



LONGITUDINAL SECTION



SECOND FLOOR PLAN



Figure 3.42 Longitudinal section (top) and floor plan (bottom) of the Hi-biya Public Hall, later versions of drawings show that the size of the stage tower was increased. Drawing from the time of the opening in 1929, Scale = 1:700.

Still located at the southern corner of Hibiya park, the Hibiya Public Hall is part of an 11-story structure with a total height of approximately 42 meters covering an area of 16.142 m². The building can be entered from two sides, giving access to the public hall when entered from the park side and to a public library when entered from the street side.

The opening of the hall was celebrated on Saturday, October 19, 1929. An article published two days later described the opening ceremony.³³² Considering that this hall was to become the most important concert venue in Tokyo in the 1930s and 1940s, one could have expected an opening ceremony with a performance by a symphony orchestra, possibly the New Symphony Orchestra (which three days earlier, on October 16 held its 55th subscription concert at the Nihon Seinenkan). This was not the case. The article mentions speeches by Satō Kōichi and other dignitaries, but no musical performance. It seems that the hall was not used for concerts in the early years and that it needed the initiative of the halls staff to change this. Shindō (2014, 172) has quoted Fujiwara Yoshie³³³ (1898–1976) saying that “the most attractive and tasteful music concerts were still performed in Nihon Seinenkan,” and that “at the time there was a person called Mr. Kumazawa [...] who visited various musicians to persuade them trying to use the Hibiya Public Hall”³³⁴

It took roughly three years until the New Symphony Orchestra was convinced to relocate from the Nihon Seinenkan to the Hibiya Public Hall. The reasons given to the public for the move from the Nihon Seinenkan to the Hibiya Public Hall were of practical and economic nature. One advantage of the Hibiya Public hall over the Nihon Seinenkan was certainly its more prominent and accessible location in Hibiya Park, but at the same time Shindō (2014, 174) compared the rent prices of the Kabuki-za and the Hibiya Public Hall during these years and found out, that it was about 10 times more expensive to rent the Kabuki-za, which can be seen as a further indication that the incentive to use the Hibiya Public Hall for concerts was mainly an economic one. The Japan Times announced, that “when the New Symphony Orchestra gives its first concert next season it will be in the Hibiya Public Hall. The Kokaido is much bigger than the Nihon Seinenkan where the concerts have always been given before, and because of the larger seating capacity, it has been decided that a reduction in rates will be possible. The monthly fee will be ¥1 instead of ¥2 and it is hoped that this will enable music lovers to patronize more often the concerts.”³³⁵

332 *The Japan Times*, October 21, 1

333 藤原義江

334 せっかく立派なものが出てきても、誰もそこで音楽会を開催しようとはせず、気の利いた音楽会はほとんど神宮外苑の日本青年館へもってゆかれた。そのころ東京市の公園課に熊沢さんという人がいて、楽人のあいだをぬって歩き、なんとか公会堂を使ってみないかとふれまわっていた。(as cited in Shindō 2014, 172)

335 *Japan Times*, August 9, 1932, 8

The acoustical conditions of the two buildings do not seem to have had a decisive influence on the selection as a concert venue. In a newspaper article, Satō Takeo spoke out decisively against the use of the Hibiya Public Hall as a venue for music performances.³³⁶ In the article he points out that the design of the Hibiya Public Hall was intended for lectures, and that in his opinion the Nihon Seinenkan was better suited for music performances (see Appendix E.5)

³³⁶ 日比谷公会堂は講演に向くが音楽は駄目, Yomiuri Shimbun, November 1935, M.E., 5

However, this opinion of an acoustics expert was still an individual opinion at that time and the Hibiya Public Hall became, for the reasons mentioned above, the most frequented concert hall in Tokyo until 1945. Regular symphonic concerts could be heard at the Hibiya Public Hall starting in September of 1932 (see Chapter 2.2.4). Konoe Hidemaro was conducting, and Beethovens Symphony No. 6 was the first item on the menu. When Joseph Rosenstock took over the orchestra in 1936, he expressed his discontent about the fact that the sound emanating from the orchestra would largely disappear into the stage tower and not be directed into the auditorium. He proposed the mounting of reflectors above the orchestra to improve the situation, which was applied shortly after (see Appendix E.8). His first subscription concert was the 170th, so it can be assumed that for the roughly 60 concerts before he arrived, the orchestra played without any reflecting panels above the stage.

The building has survived the Second World War and has been preserved to this day, but it was not accessible during the time working on this project, due to renovations taking place at the time.

3.2.5. The Tokyo Gekijō

Construction of “the magnificent Tokyo Theatre”, later mostly referred to in the English media as the Tokyo Gekijō³³⁷ started in the autumn of 1928 and the opening ceremony took place on March 29, 1930.³³⁸ It was the newest theatre from Ōtani Takejirō’s Shōchiku enterprise. The building was designed by Kimura Tōsaburo³³⁹ (1890–1958), who was part of the Ōbayashi construction company since 1914. When he designed the Tokyo Gekijō, he could already look back on a number of performance venues that he had designed for the Obayashi construction company, such as the Shōchiku-za, opened in 1923 in Osaka.

The characteristic feature of the Tokyo Gekijō at the time of its first opening was its raised tower and the cut-off corner facing towards the street. The five-storey building was “done in modern Spanish. In the structure, art and science are ideally combined, the best of modern architectural knowledge and experience having been concentrated to it.”³⁴⁰

The main auditorium had a capacity of 1,898 seats with upholstered chairs on the ground floor and the first floor balcony. It was equipped for a variety of different usages and featured an orchestra pit for opera productions, two pathways and an electrically-powered revolving stage with a diameter of 15.5 m for Kabuki productions, a projection room for film, and facilities for radio broadcasting (Ōbayashi gumi 1930). It was mentioned, that “careful consideration has also been given to the structure from acoustic view point. It is quiet natural that this new theatre is considered the foremost of the kind in the entire Orient in every respect.”³⁴¹

Like many other theatres (nine in total, the Kabuki-za, Tokyo Gekijō, Shinbashi Enbujo, Yūroku-za, Tokyo Takarazuka Gekijō, Teikoku Gekijō, Meiji-za, Kokusai Gekijō, and the Nihon Gekijō), the Tokyo Gekijō had to close by order of the Cabinet Information Board in March of 1944 (Okamoto 2001, 25). Most of the Shōchiku theatres, including the Kabuki-za were destroyed during the air-raids on Tokyo in 1945, but the Tokyo Gekijō survived and since it was furnished with everything that was necessary for a Kabuki production, it became an important place for Kabuki performances after 1945 until the 1952 reopening of the Kabuki-za (Okamoto 2001, 51). From then on, it was mostly used as a movie theatre, until it was replaced by a completely new skyscraper building in 1975, called the Tōgeki Building,³⁴² which is located at the same premise at the present day address at Tsukiji, 4 Chome-1-1.

337 東京劇場

338 *Japan Times & Mail*, March 24, 1930, 3

339 木村得三郎

340 *The Japan Times & Mail*, March 24, 1930, 3

341 *The Japan Times & Mail*, March 24, 1930, 3

342 東劇ビル



Figure 3.43 Façade of the Tokyo Gekijō, shortly after the opening in 1930 in Ginza. Today's version of the building is still in the same location.



Figure 3.44 Interior of the Tokyo Gekijō, showing the upholstered seats, the typical Kabuki walkway can be seen on the right side of the picture.

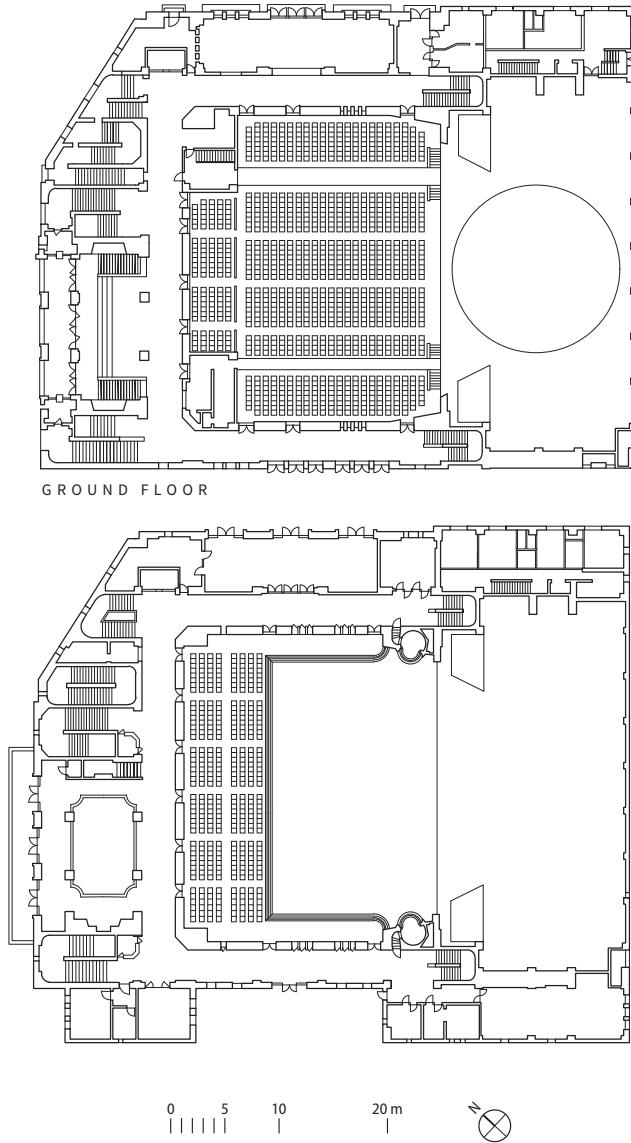


Figure 3.45 Ground floor plan (top) and first floor plan (bottom) of the Tokyo Gekijō (sections was not found), Scale = 1:700.

3.2.6. The Nippon Gekijō

³⁴³ 日本劇場

By far the largest of all venues examined here, the Nippon Gekijō³⁴³, opened on December 24, 1933, after five years of construction. The opening was reported in a special four page supplement of the Japan Times,³⁴⁴ which described the theatre as “the fourth largest theater in the world and the largest in the Orient”. The supplement also explained the long (by the standards of the time) construction period, which was caused by the effects of the world-wide depression which also influenced the Japanese economy. The theatre was eventually completed with the financial support by Ōkawa Heizaburō³⁴⁵ (1860–1936), an influential business man at the time and an innovator in the paper production business. The design of the building was provided by the architect Watanabe Jin³⁴⁶ (1887–1973), who is today mostly recognized for the Wako building still standing in Ginza or the Imperial Household museum in Ueno.

³⁴⁴ *The Japan Times & Mail*, Nippon Gekijō Supplement, January 1, 1934

³⁴⁵ 大川平三郎

³⁴⁶ 渡辺仁

In 1934, an agreement was reached between Ōkawa Heizaburō and Kobayashi Ichizō and the Nippon Gekijō was brought under the control of the Tōhō Gekijō Kaisha, founded two years earlier.³⁴⁷ As a result of this, the Tokyo Takarazuka Gekijō, the Hibiya Eiga Gekijō, the Nippon Gekijō and the Yūroku-za theatres, all located in the Yūrakuchō area were owned by Kobayashi Ichizō. Preserved photos show the Nippon Gekijō being located just next to the former Asahi Newspaper company headquarter, at the location of the current south exit of the Yūroku-chō station, at 2-Chōme-5-1, Yūrakuchō, Chiyoda-ku.

³⁴⁷ *The Japan Times & Mail*, December 2, 1934, 1 (The Japan Times speaks of Okawa Heihachiro (a Japanese film actor), but this is assumed to be a mistake)

The whole building was more an entertainment complex than just a theatre. Apart from the main large auditorium the building also contained a second small auditorium, restaurants, offices, and a large assembly hall at the top floor. The appearance of the building, extending seven storeys above the ground and three below the ground, was dominated by the semicircular and white painted reinforced concrete façade, facing towards Yūroku-chō station.³⁴⁸

³⁴⁸ *The Japan Times & Mail*, Nippon Gekijō Supplement, January 1, 1934



Figure 3.46 Façade of the Nippon Gekijō located next to Sukiwabashi bridge, opened in 1933. The building of the Asahi newspaper is visible on the right of the theatre.

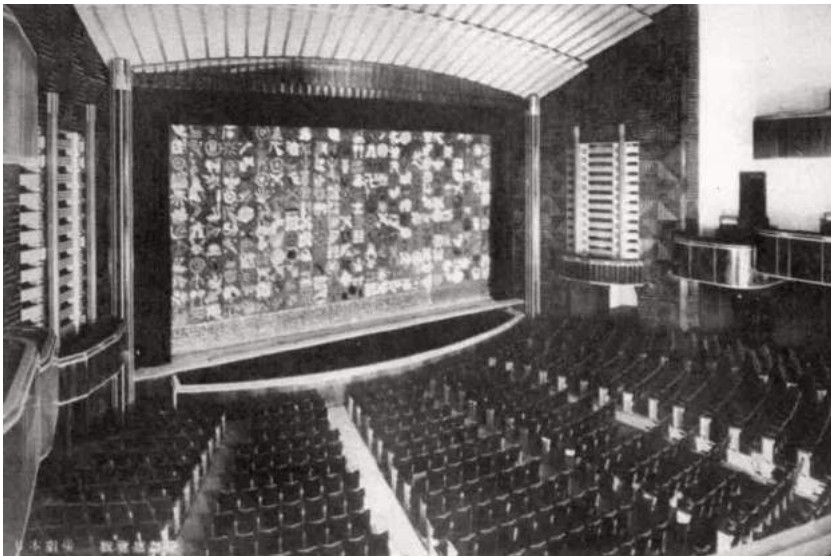


Figure 3.47 Interior of the Nippon Gekijō, showing the stage and the orchestra box in front of it.

While the floor plan of the exterior walls is organized in a U-shape, inside the auditorium this shape is transformed towards a rectangular shape, with two large balconies opposing the stage and three boxes on each side on the first floor and two boxes on each side on the second floor.

The walls were finished with different materials, the sidewalls were partly covered with veneer of “manchurian walnut”. The proscenium extended from the stage with a width of approximately 25 m to the parallel side wall, with a distance between them of roughly 35 m. The ceiling shape, when looking at the longitudinal section, was similar to the “megaphone shape” found in the Hibiya Public Hall. The large hall had a capacity of 5,000 seats (Ōbayashi gumi 1933). Regarding the materials of the seats, these were described as “green velvet upholstered chairs.”³⁴⁹ In front of the stage, an orchestra pit was located at the same height as the parquet floor, separated from the audience area by a roughly 1.5 m high partition wall. A pipe organ was to be added later.

The theatre was at the time of its opening introduced as the “most pretentious picture palace in the orient”, but it was in the following years used for a variety of different purposes. Concerts at the Nippon Gekijō were organized, among others, by Klaus Pringsheim. From February of 1940, the Nippon Gekijō presented an orchestra called the Nichigeki Orchestra³⁵⁰, consisting of 50 musicians conducted by Pringsheim, which launched a “series of popular orchestra concerts”³⁵¹ starting on Thursday, February 29, with a program that would be repeated for an entire week.

The Nichigeki³⁵² (as it was referred to in later years) was demolished in April of 1981 and has not been rebuilt or replaced by a newer theatre with the same name. A shopping mall can be found at the former location of the theatre today, at the Sukiwabashi crossing. The area that surrounded the theatre has also changed significantly, and the bridge and the canal it was crossing has today disappeared from the ground. The theatre did form an ensemble with the Asahi Newspaper building, and the general shape of these two structures is still reflected in the layout of the building occupying its place today.

³⁴⁹ *The Japan Times & Mail*, Nippon Gekijō Supplement, January 1, 1934, 2

³⁵⁰ 日劇管弦楽団

³⁵¹ 日劇名曲オーケストラ Nichigeki meikyoku ōkeshutora, Yomiuri Shimbun, February 28, 1940, E.E., 4

³⁵² 日劇

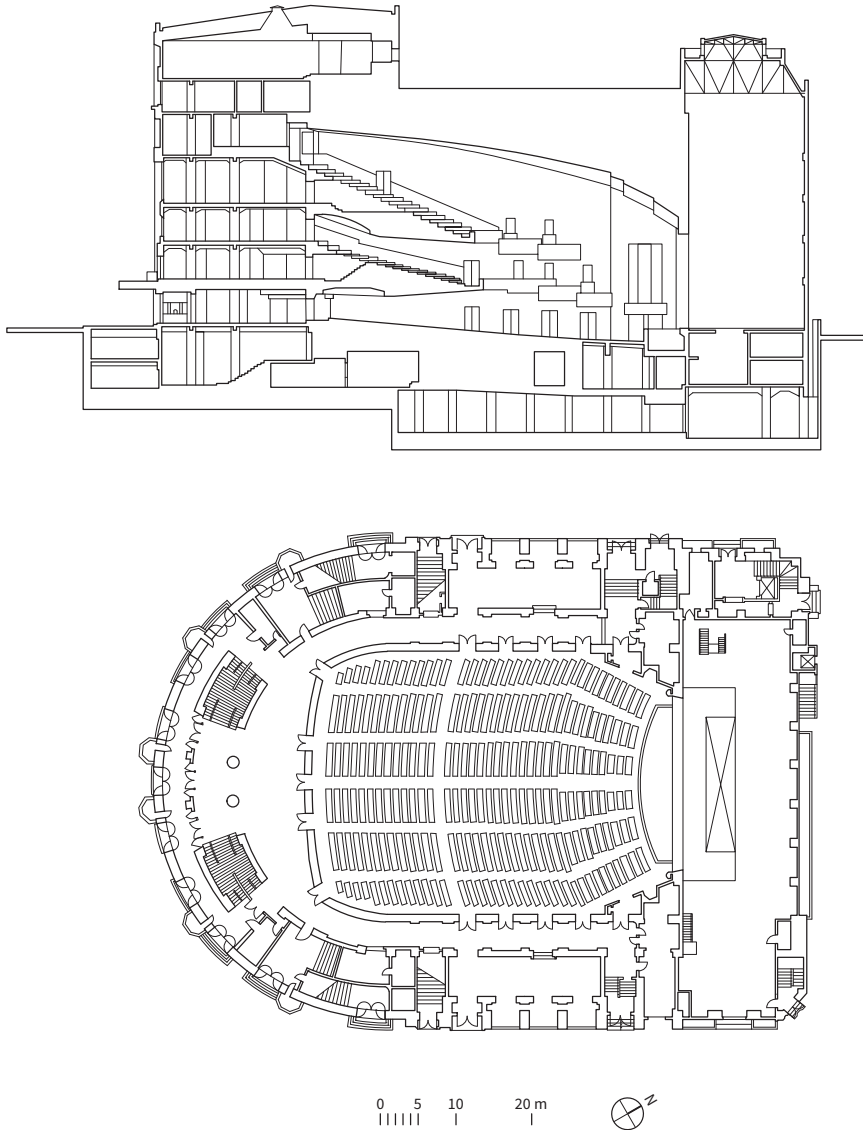


Figure 3.48 Longitudinal section (top) and floor plan (bottom) of the Nippon Gekijō, Scale = 1:1000.

3.2.7. The Gunjin Kaikan

³⁵³ 軍人会館

The “Gunjin Kaikan”,³⁵³ which can be translated as “Soldiers Public Hall”, was a public hall opened in 1934 north of the Imperial Palace. In articles published at the time in English media, the building was usually referred to as Gunjin Kaikan. The building continued to exist at the same location after the Second World War. In 1953 the name was changed to Kudan Kaikan³⁵⁴. The word Kudan describes the area, the building is located at.

³⁵⁴ 九段会館

A competition for the building was announced in 1930. The competition requested a design “imbued with national essence” (Reynolds 2001, 91). Construction began in February, 1932 and the building was completed in March 1934. The Journal of the Institute of Japanese Architects³⁵⁵ specified Kawamoto Ryōichi as the lead engineer of the project, and Itō Chūta³⁵⁶ (1867–1954) as technical supervisor. Itō Chūta was “one of the most prominent architects and architectural theorists of the first half of the twentieth century” (T. Watanabe 2006). Itō “altered between traditional and Western-style buildings, with Japanese and Asian motifs,” (Finn 1995) an element clearly visible in the outer appearance of the Gunjin Kaikan. Itō was also responsible for the Kanematsu Auditorium at Hitotsubashi University, completed in 1927 (Jackson 2015, 68–69). Although Satō Takeo is not mentioned in the official documents, he seems to have been the acoustic consultant of the building.³⁵⁷

³⁵⁵ *Journal of the Institute of Japanese Architects* 48, no. 587, July 1934, 815

³⁵⁶ 伊東忠太

³⁵⁷ 同建築の顧問であられた伊東忠太郎博士からお話がありまして、同建築の技師長川本良一氏からご依頼を受けまして、音響の設計を担当したものでございます。最初だいたいの原案が先方で出来ましてから、直ぐご相談にのりましたために、ある程度まで理想的に音響上の計画を進めることが出来ましたことは幸せでありました。

I received an unofficial request from Dr. Itō Chūta, who was adviser of this building and then I received a request from Mr. Ryōichi Kawamoto, the chief engineer of this building. Therefore I took over the acoustic design. It was fortunate for me that I could develop my ideal acoustic plan to some extent, because I had consulted the building from the beginning, since most of the original drafts were made. (Satō 1934, 756–757)

The main contractor was the Shimizu construction company. The “opening ceremony of the Gunjin Kaikan, the new building to house the Reservists Association of ex-military and naval men” took place on Sunday, March 25, 1934.³⁵⁸

³⁵⁸ *Japan Times*, March 27, 1934, 2



Figure 3.49 Façade of the Gunjin Kaikan, opened in 1934, north of the Imperial Palace.



Figure 3.50 Interior of the Gunjin Kaikan, showing the balcony extending unusually far into the room.

In the aforementioned article in the *Journal of the Institute of Japanese Architects* from the year of the opening, the architectural style of the building was described as a “modern style, based on Japanese taste”.³⁵⁹ Today the buildings of this period are associated with a style called “Imperial Crown Style”³⁶⁰. The style was described by Reynolds (2001, 92) as “putting traditional roofs on modern structures”. Another famous example of this period is the Imperial Museum, designed by Watanabe Jin³⁶¹.

The elliptical ground plan, which Satō had already used during the planning of the Hibiya Public Hall, was also applied in the Gunjin Kaikan. The auditorium featured 1,500 permanently installed seats, which were distributed over the parquet and two balconies. In contrast to most other auditoriums, in this building the upper of the two balconies protrudes much further into the room than the lower one. This peculiarity underlines the fact that Satō paid special attention to the even distribution of early reflections to all listening places when designing this room. The auditorium was designed with a multi-purpose use in mind. Although speeches would have occupied the most time, the room was also frequently used as a concert hall for solo recitals and symphonic concerts.

After the opening of the hall in March 1934, the first concert announced in the *Japan Times*, was a series of recitals by Emanuel Feuermann, starting on October 4, 1934.³⁶² The first symphonic concert at the Gunjin Kaikan, announced in the *Japan Times*, was a concert by the New Symphony Orchestra on December 9, 1938.³⁶³ This concert was entitled “Memorial Concert for the Cultural Agreement between Japan and Germany”. It was conducted by Yamada Kōsaku and featured Miyagi Michio³⁶⁴ (1894–1956) in a Koto concerto entitled *Etenraku* and Sonoko Inoue on the piano in Beethoven’s piano concerto No. 5 (Owaga 1977, 78).

When the Tōhoku earthquake struck on March 11, 2011, the ceiling of the main auditorium of the Kudan Kaikan collapsed and left 2 dead and many injured. The building has been closed since, and is currently undergoing reconstruction, which will keep the original façade but will place a 17-storey office building on top of the existing structure. It is scheduled to be finished in 2022.

³⁵⁹ 日本趣味を基調とせる近代式
Nihon shumi wo kichō to seru kindai shiki

³⁶⁰ 帝冠様式
Teikan yōshiki

³⁶¹ 渡辺仁

³⁶² *Japan Times*,
October 4, 1934, 4

³⁶³ *Japan Times*,
December 9, 1938, 5

³⁶⁴ 宮城道雄

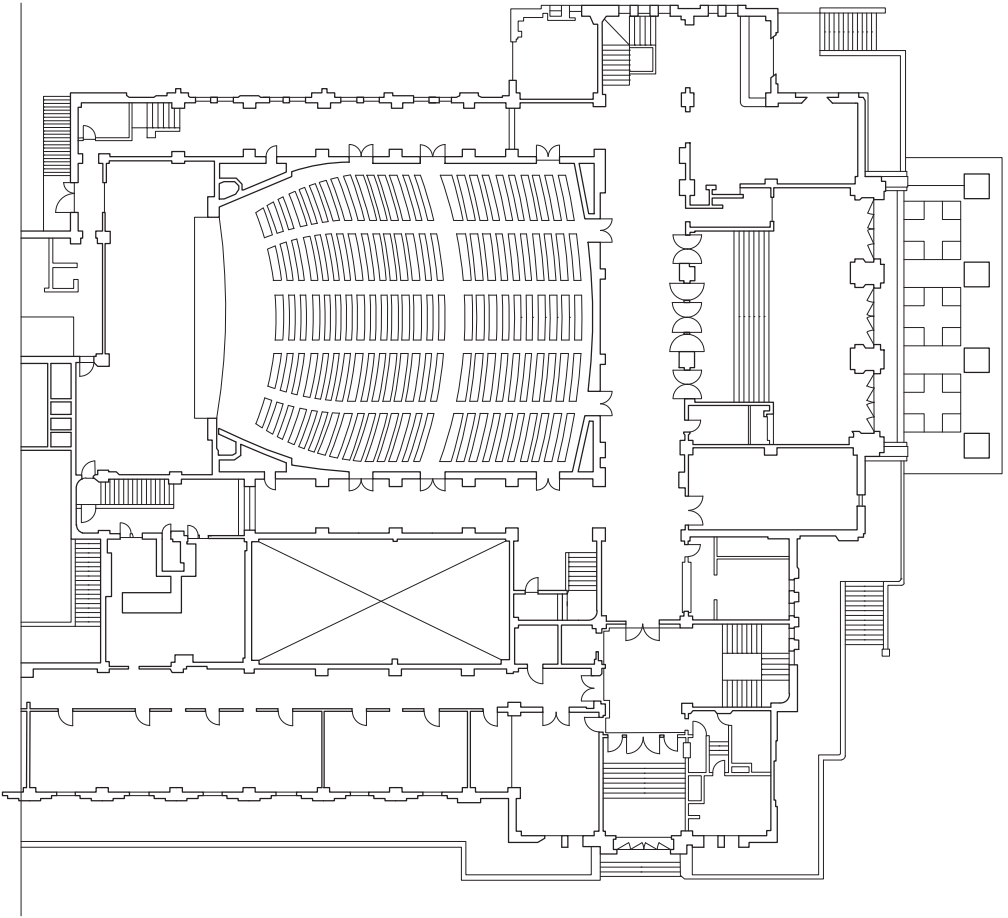


Figure 3.51 Floor plan of the Gunjin Kaikan, Scale = 1:700.

3.2.8. The Tokyo Takarazuka Theatre

A person that had a great impact on the cultural landscape of Tokyo was the multi-talented entrepreneur Kobayashi Ichizō³⁶⁵ (1873–1957). Kobayashi was born in Yamanashi, and had studied at Keiō University. After graduating, he worked at the Mitsui bank for some time, but was later employed by the Hankyu Railway Company³⁶⁶ that was founded in 1907. With the efforts of Kobayashi, a train line from Umeda station in Osaka to the small spa town of Takarazuka (approx. 25 km away) was completed in 1910, and under his leadership, this small town became an important entertainment center in western Japan.

Kobayashi was influenced greatly by the first experiments of opera applying Japanese lyrics, which he witnessed at the Imperial Theatre in Tokyo, such as a performance of the opera Yuya sung by Miura Tamaki with music by August Junker (Yamanashi 2012, 10). The performance sparked in him the idea of combining Western music with elements of Kabuki to form a new type of “peoples theatre”:

It must be Western music, which will become a base of the style of national theatre for all people [...] In my opinion a national theatre style in future consists of the combination of Kabuki plays and Western music.³⁶⁷ (Kobayashi 1935, 275–276)

³⁶⁷ 大勢の人に見せる国民劇の基礎とするには、西洋音楽でなくてはならぬ。[...] 日本の歌舞伎劇を、西洋音楽化していくところに、私は将来の国民劇があるという

³⁶⁸ 宝塚歌劇団 *Takarazuka kageidan*

The result of his visions, the Takarazuka Revue³⁶⁸ started performing in 1914, and quickly the all girls revue became the biggest attraction of Takarazuka town and beyond. In 1918, the group gave their Tokyo premiere at the Imperial Theatre, and a performance at the Kabuki-za followed in 1928. The Takarazuka Grand Theatre in Takarazuka town had already been opened in July 1924. In an article by Satō Takeo, the designer of the Hibiya Public Hall, he mentioned having studied the acoustical characteristics of the Takarazuka Grand Theatre during the time he was designing the Ōkuma Memorial Hall of the Waseda University. Ten years later, the Tokyo Takarazuka Theatre was opened in the Marunouchi district just next to the Imperial Hotel (Yamanashi 2012, 13). The opening took place on January 2, 1934, with a program consisting of dances and operatic performances by the “Takarazuka Girls’ Opera Troup”³⁶⁹ The building was designed by Washio Kuro³⁷⁰ (1893–1985), who was part of the Takenaka Construction Company, which he joined in 1917 and was a modern reinforced concrete structure (Nagai 2014, 126).

³⁶⁹ *The Japan Times & Mail*, January 1, 1934, 3

³⁷⁰ 鷲尾九郎



Figure 3.52 Façade of the Tokyo Takarazuka Theatre, located across the street to the north of the Imperial Hotel.



Figure 3.53 Interior of the Tokyo Takarazuka Theatre, showing the upholstered seats on the ground floor and the two balconies, and the orchestra box in front of the stage.

The visual impression of the interior was dominated by the red upholstered chairs and red carpet in contrast to the silver grey walls and ceiling. The auditorium could be entered through a total of eight entrances. The ground floor accommodated approximately 1,500 people, while the total capacity was almost 3,000 people. The Takarazuka Theatre was equipped with two walkways for Kabuki performances. There were two private boxes on both sides of the auditorium, each with room for 12 people.³⁷¹ The stage of the Tokyo Takarazuka was approximately 23 m wide, and had a height of approximately 10 m. Next to the stage on both sides existed additional side stages. Like the other theatres, the Tokyo Takarazuka theatre was also equipped with a revolving stage.³⁷²

³⁷¹ The Japan Times & Mail, December 15, 1933, 3

³⁷² The Japan Times & Mail, December 18, 1933, 3

The theatre was mainly used for the all girls revue that Takarazuka was famous for but it also was used for a number of concerts in the 1940s. To give an example, on October 2, the Tōhō Symphony Orchestra, conducted by Joseph Rosenstock gave a performance of Rimsky-Korsakov's ballet *Sheherazade* as well as instrumental works including the overture to *Fledermaus* by Johann Strauss.

After 1945 the theatre was used by the occupation forces and the name was changed to "Ernie Pyle Theatre", named after a journalist from the United States, who was known as a war correspondent in the Second World War, and was killed during the war on the Japanese island of Iejima. In 1955 the theatre was returned and renovated, until it was demolished in January of 1998 and replaced by a new structure in the same location, which opened on January 1, 2001 (Nagai 2014, 10). This new theatre has survived until today in its original location, at the present day address of Yurakuchō, 1-Chōme-1-3, Chiyoda City.

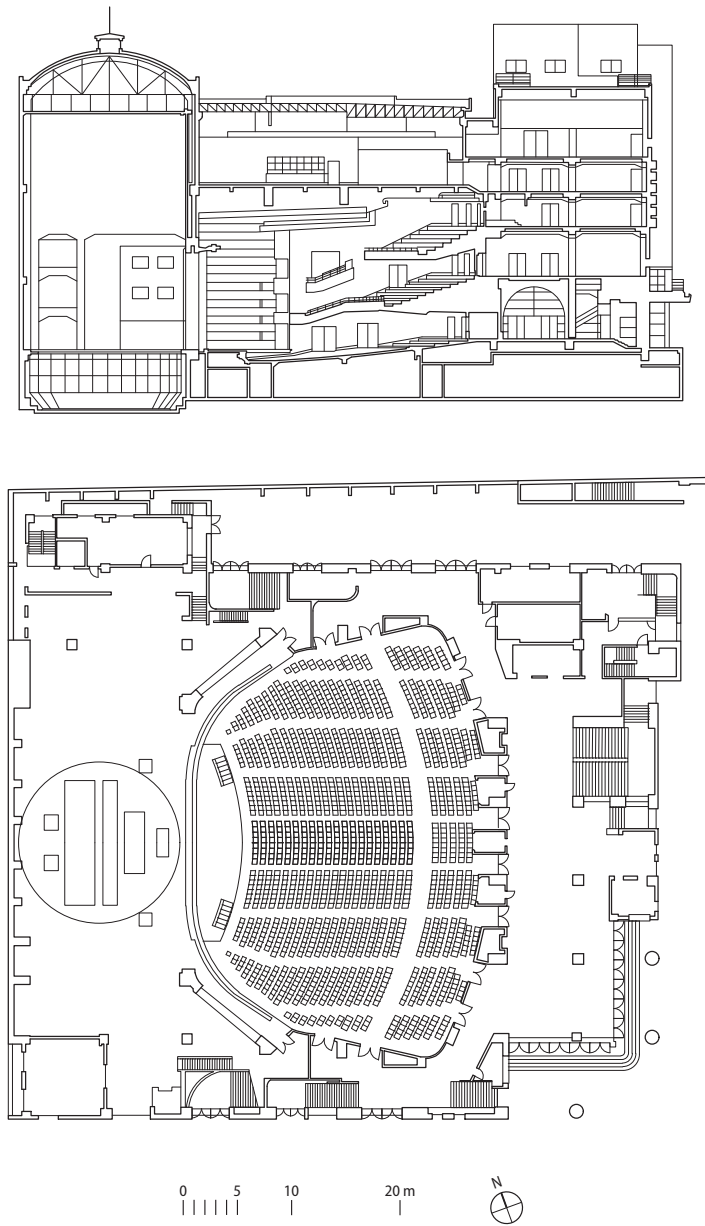


Figure 3.54 Longitudinal section (top) and floor plan (bottom) of the Takazuka theatre, Scale = 1:700.

3.2.9. The Yūroku-za

³⁷³ 有楽座

The Yūroku-za³⁷³, which was opened in 1935, was not related to the theatre with the same name, which was opened in 1905 and destroyed in the earthquake of 1923, both in terms of location and architectural style. It was the last building in the series of amusement facilities around at Yūroku-chō area by Kobayashi's Takarazuka enterprise. The building was designed by Abe Mikishi³⁷⁴ (1883–1965), who was an innovator in reinforced steel construction and was also responsible for the design of the Hibiya Movie Theatre,³⁷⁵ opened in 1934. The opening of the Yūroku-za took place on June 7, 1935.³⁷⁶

³⁷⁴ 阿部美樹志
³⁷⁵ 日比谷映画劇場
Hibiya Eiga Gekijō

³⁷⁶ *The Japan Times*
& *Mail*, June 7, 1935, 3

The façade of the building is characterized by a mix of modern materials assembled in a structure reminiscent of castle architecture from the Edo period (Meid 1977, 325) It was noted, that “the striking exterior of the Yūroku-za at once arrests attention as it is a combination of the Tokugawa style of architecture and modern ideas. The arrangement of black and white tiles and barred windows of the entrance section of the building suggests the Yedo residence of a feudal lord.³⁷⁷”

³⁷⁷ *The Japan Times*
& *Mail*, June 8, 1935, 3

³⁷⁸ *Journal of Architecture and Building Science* 49, no. 602, August 1935, 1041

The interior of the building is described in detail in an article in the *Kenchiku Zasshi*.³⁷⁸ It featured fixed seats on the ground floor and on one balcony. The interior walls had an almost circular shape, broken up into 11 elements that were bent outwards. The absorption material “Heraklith” was specified in this source, and was used as absorptive material to prevent echoes and undesirable effects due to the circular floor plan. The pathway typical for Kabuki theatres, extending the stage through the audience area at an angle of 90 degrees is missing in the Yūroku-za. Instead, a short passage was extending from the stage at an angle of 45 degrees on both sides of the stage along the side walls.

As mentioned before, although this theatre shares the name with the Yūroku-za theatre that existed in the Meiji era, the building was an entirely new structure, and located at the present day address of 1-Chōme-2-2, Yūrakuchō, Chiyoda City (between the Tokyo Takarazuka Theatre and the Toho Cinema). It survived the air-raids on Tokyo, but was used as a movie theatre from 1951 until it was closed in 1984.



Figure 3.55 Exterior of the Yuraku-za theatre, opened in 1935.



Figure 3.56 Interior of the Yuraku-za, opened in 1935.

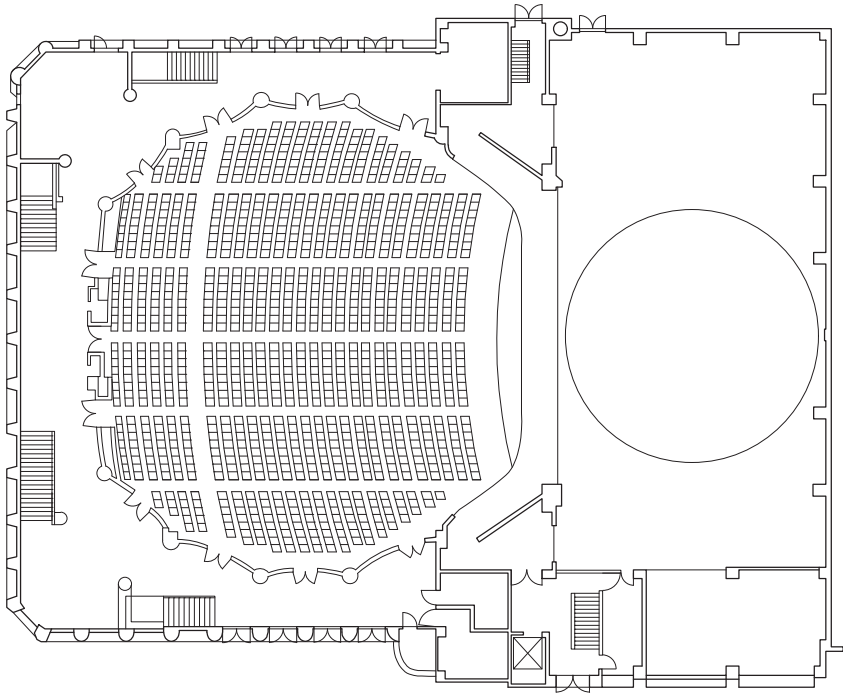
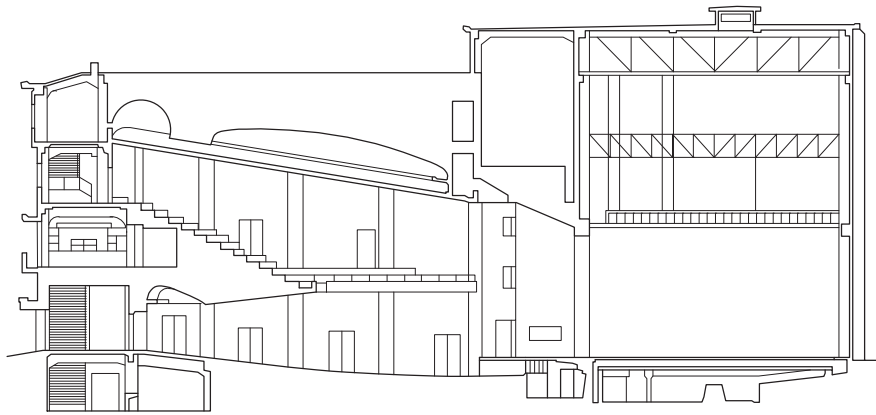


Figure 3.57 Longitudinal section (top) and floor plan (bottom) of the Yuraku-za, opened in 1935, Scale = 1:700

3.2.10. The Kyōritsu Auditorium

The the auditorium of Kyōritsu Womens University³⁷⁹ was the last larger structure of the sample investigated here, completed before the use of reinforced concrete and steel frame constructions were forbidden from 1938, due to an increasing shortage of building materials in the years of war (T. Watanabe 1996, 82). This auditorium was, in the newspapers of the time, referred to as the Kyōritsu Auditorium.³⁸⁰ In 1928 the Kyōritsu Women's Professional College was established. The construction of the auditorium began in August of 1936 and was finished in March 1938. Naitō Tachū³⁸¹ (1886–1970), architect and engineer who is nowadays famous for the construction of the Tokyo Tower (completed in 1958) was the designer of the building. Satō Takeo was involved in the acoustic design of the auditorium (Hirayama et al. 1958).

The whole building was a reinforced concrete structure. A picture of the façade from the year 1938 is included in (Takase 1956, 145). The auditorium featured approximately 2,600 seats, similar to the size of the Hibiya Public Hall, and the capacity could be extended by auxiliary seats to a capacity of 3,200. An orchestra box was part of the auditorium in front of the stage. The auditorium was used by most of the bigger orchestras in the time between 1939 and 1943, most likely because it was an alternative to the Hibiya Public Hall with a comparable size of about 2,600 seats.

After the Second World War, the Kyōritsu Auditorium was one of the few available venues available for larger scale music performances. A fire, which occurred in the night of February 23, 1956 “completely destroyed the Kyōritsu Auditorium in Kanda.”³⁸² Roughly a year later, the Japan Times reported that “the Kyōritsu Hall, popular concert and meeting hall in Tokyo, which was completely destroyed by fire in February last year, was reopened.”³⁸³ This new second version of the building exists until today at the same location of the original structure, at 2-Chōme-2 Hitotsubashi, Chiyoda City. While the old auditorium had a capacity of approximately 2,600 people, the capacity was now reduced to 2,010 seats. A paper describing the acoustic planning of the new hall mentions a reverberation time of this new version of the auditorium of approximately 1.5 s at mid-frequencies (Hirayama et al. 1958). It is assumed, that the outer dimensions, and with it the room volume has most likely not changed significantly, therefore the decrease in capacity while keeping the room volume similar must have resulted in an reduced reverberation time compared to the original condition.

³⁷⁹ 共立 *Kyōritsu*
can be translated to
“common”

³⁸⁰ 共立講堂
Kyōritsu kōdō

³⁸¹ 内藤多仲

³⁸² *Nippon Times*,
February 24, 1956, 1

³⁸³ *The Japan Times*,
March 17, 1957, 3



Figure 3.58 Façade of the Kyōritsu Auditorium before the fire in 1956, at the location where the current auditorium with the same name is also located in Hitotsubashi, Chiyoda, just next to Jimbōchō station.

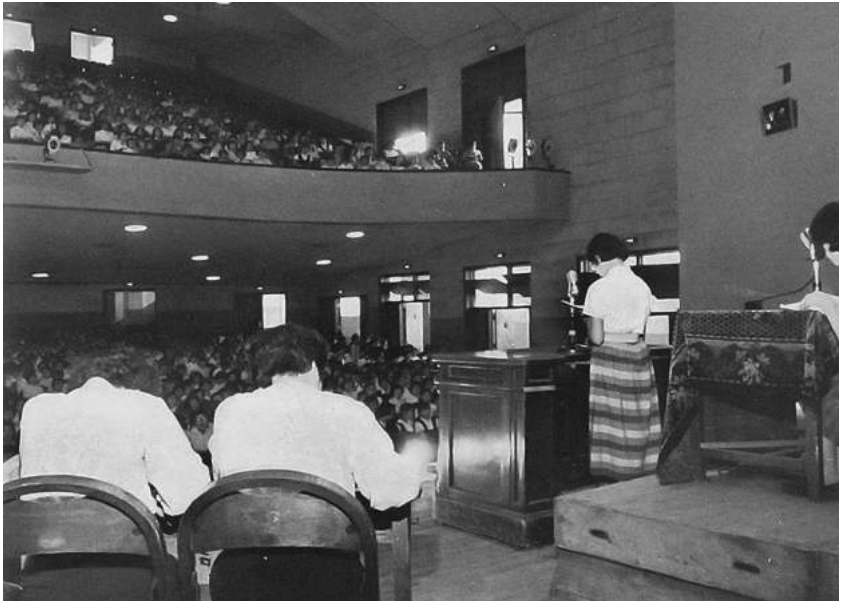


Figure 3.59 Interior of the auditorium showing a school event sometime before the fire in 1956.

Chapter 4.

Room acoustical conditions

4.1. Acoustical evaluation based on room acoustical parameters

The aim of the acoustical evaluation presented in this chapter is to identify the range of acoustical characteristics of the halls examined to allow a comparison within a cultural and historical context.

This acoustical evaluation is carried out based on objective measures obtained from impulse responses, which connect subjective attributes of music perception to physical characteristics of the room in question. The reverberation time was the first objective measure to be proposed (Sabine 1922), and continues to be fundamental when describing the acoustical characteristics of an auditorium for music performance. It is however customary today to consult a number of additional objective measures, reflecting the multidimensional nature of room acoustic perception in concert halls.

A set of parameters was standardized in ISO 3382-1 (2009), commonly used today in the design process, or to describe the acoustics of a finished building project. For example, the planners of the Elbphilharmonie recently presented the newly completed concert hall at a conference using these parameters, illustrating the degree to which these parameters are established (Oguchi et al. 2015). The objective measures and the subjective attributes used in this study, as well as their just noticeable differences are given in table 4.1.

Table 4.1 Listening aspects, the correlated acoustic quantities and their just noticeable differences (JND), as given in ISO 3382-1 (2009, 12).

Listening aspects	Acoustic quantity	JND
Subjective loudness	G in dB	1 dB
Perceived reverberance	EDT in s	Rel. 5 %
Perceived clarity of sound	C ₈₀ in dB	1 dB
Apparent source width (ASW)	J _{LF}	0.05

In the case of an existing hall, the impulse responses necessary to derive these objective quantities can be measured. For auditoria in the planning

stage (or for auditoria that, as in this case, no longer exist) acoustic scale models or computer simulations are typically used.

Of the 15 halls, only the Hibiya Public Hall and the hall of the Academy of Music still exist today in a condition close to the original. Both of these halls were, however, at the time this study was carried out under reconstruction, and could therefore not be accessed for acoustic measurements. Results of reverberation time measurements of these two halls do however exist. All other halls were either destroyed during the 1923 earthquake, by the air raids on Tokyo in 1945, have been deconstructed and replaced with newer and completely different buildings or have not been reconstructed at all. Although acoustic tests with scale models still have their value in the room acoustic planning process, such models are nowadays only used in projects of a certain prestige (e.g. Quijerez et al. 2018), whereas cheaper, faster and more easy to modify computer models are well established in consulting practice and research, and have been used in this study.

4.1.1. Computer modelling in room acoustics

When considering computer modelling in room acoustics, two fundamental concepts have to be distinguished. Wave based models like finite element method (FEM) and boundary element method (BEM) are based on the solution of the wave equation and produce very detailed results including acoustic phenomena like diffraction and modal effects. For the investigation of architectural environments, where octave band resolution is desired and modal effects can be neglected for the relevant frequency range, the level of detail achieved by these methods does not justify the computational effort needed. Therefore the application of wave based approaches is usually limited to the investigation of small rooms and low frequencies (Rindel 2000).

A different approach is presented by numerical solutions based on the concepts of geometrical acoustics. For frequencies much larger than the Schroeder frequency f_s , we have:

$$f_s = 2000 \sqrt{\frac{T}{V}}, \quad (4.1)$$

where modal effects can be neglected, and the propagation of plane sound waves can be described by rays or particles with a certain direction, energy and time travelling from a sound source to a listener.

4.1.2. The hybrid simulation model

Commercially available software packages which are used in the planning of performance spaces typically rely on the concepts of geometrical acoustics³⁸⁴. These programs all use a combination of deterministic processes, mostly the image source method to calculate early reflections, combined with stochastic models such as ray tracing or radiosity to calculate the late reverberation (Vorländer 2008, 217–221). Both of these concepts have their strengths and weaknesses but the combination of the two has established itself to deliver reliable results, when the limitations are taken into account and reasonable input data is specified (see Section 4.1.5).

³⁸⁴ Some examples are CATT, EASE and ODEON

An accurate way to calculate specular reflections of sound emitted from a sound source, is the application of the image source method. A given sound source is mirrored at all surface planes of a room to create virtual secondary sources, which are then mirrored again to construct higher order image sources. The number of image sources that have to be calculated increases with the number of surfaces N and the reflection order i , so the calculation time is defined by N^i . Only reflections that actually reach the receiver of interest have to be calculated, after an “audibility test” has determined the relevant image sources audible (Schröder 2012, 53–54). Each reflection path is stored in the resulting pulse, taking into account the travel time delay and the attenuation caused by wall and air absorption, as well as the source and receiver characteristics. While the image source method is very accurate and works well for simple rectangular rooms, the computing time required quickly becomes excessively large due to the exponential growth of necessary calculations with order of reflection. For this reason, only image sources up to a certain image source order are calculated and the image source method is usually only used to calculate early specular reflections.

Stochastic ray tracing uses a large number of particles emitted in random directions from a sound source. Each particle, or ray, is traced until it reaches a receiver represented by a detection sphere with a predefined radius, or until its energy falls below a predefined threshold. Particles that hit the detection sphere are stored in a histogram that records the time it took the particles to travel from the source to the detection sphere as well as the energy of these particles. Objective parameters such as the above mentioned reverberation time can be calculated from the energy histogram. The calculation time is influenced by the number of frequency bands, the number of particles and the number of room surfaces.

The room acoustics simulation software RAVEN, which was used in this study, was developed at the Institute of Technical Acoustics of the RWTH

Aachen (Schröder et al. 2011; Schröder 2012). Similar to the software packages mentioned above, RAVEN relies on a hybrid acoustic simulation model, in this case combining image sources and ray tracing. The software provides the ability to perform and control calculations using a Matlab interface that was used in this study to evaluate combinations of possible absorption properties. For the purpose of this study, an existing Matlab script (Böhm et al. 2016) developed at the Audio Communication Group was extended to execute all calculations and store the results for all different combinations.

4.1.3. Modelling the geometry

For this investigation, CAD models were created in the software SketchUp for all rooms where sufficient architectural data was available. The geometrical acoustics model assumes that all surfaces are large compared to the wavelength, therefore as a general guideline, it was intended to keep surface dimensions larger than 0.5 m, which corresponds to a frequency of approximately 700 Hz, and small details in the original rooms such as lamps etc. were not included in the model. Curved surfaces were approximated using plane surfaces. SketchUp materials with unique names were created and assigned to all surfaces on the side facing inside the room. The geometry created in SketchUp was exported to the RAVEN software using a plugins provided by the software package. The rooms, for which sufficient input data could be found, their room volume, and the number of faces and receivers are given in Table 4.2.

Table 4.2 Acronyms, Volume V derived from the geometric models (excluding the stagehouse), as well as number of faces and receivers per room.

Name	V in m ³	Faces	Receivers
Hall of the Academy of Music	1,885	108	6
Kanda YMCA	2,696	279	9
Imperial Theatre	5,085	460	9
Nanki Auditorium	2,010	113	6
Kabuki-za	9,923	325	12
Nihon Seinenkan	6,241	167	10
Hibiya Public Hall	12,392	259	10
Nippon Gekijō	31,140	330	12
Gunjin Kaikan	5,715	218	10

4.1.4. Modelling the audience area

The audience was modelled in all rooms as an audience box with a height of 0.8 m above the floor, corresponding roughly to the shoulder height of a sitting person. This was done for two reasons: First, in this way the reduction of the total room volume through the audience volume is taken into account, and second, masking of rays (otherwise possibly hitting reflecting surfaces) by the audience box is considered. The receivers, represented by detection spheres with a radius of 0.5 m were introduced in the model 0.5 m above the audience boxes to find a compromise between the recommended receiver height of 1.2 m according to ISO 3382-1 (2009) and a detection sphere not overlapping with the audience box. In order to get an idea of the seating density, the total audience area S_A was derived from the geometric models and divided by the seating capacity found in the literature.³⁸⁵ The calculated seat densities are shown in the Table 4.3.

³⁸⁵ All rooms except the hall of the Academy of Music and the Kanda Y.M.C.A. had fixed seats. For these two rooms all available values were averaged from the literature.

Table 4.3 Audience area S_A derived from the geometric models, seating capacity N from literature sources and area per listener.

Name	S_A in m^2	N	S_A/N in m^2
Hall of the Academy of Music	187	330	0.57
Kanda YMCA	313	300	0.96
Imperial Theater	847	1,700	0.50
Nanki Auditorium	142	350	0.41
Kabuki-za	1,300	2,470	0.53
Kanda YMCA	420	1,000	0.42
Hibiya Public Hall	1,228	2,660	0.46
Nippon Gekijō	3,071	4,000	0.77
Gunjin Kaikan	707	2,000	0.35

4.1.5. Absorption properties

The simulations are based on random-incidence absorption coefficients, measured according to ISO 354 (2003). To cope with the problem of insufficient knowledge about the absorption properties of the surfaces, rather than trying to guess the exact absorption values for each octave band, the following approach was followed:

In a first step, a range of possible absorption properties was specified for any given surface based on the existing knowledge about the rooms, available in articles in architectural magazines, official documents and photographs of the interiors of the rooms. While the available knowledge con-

Table 4.4 Name of the materials used, size of the surface covered with the material, minimum and maximum equivalent sound absorption areas, absolute value of the difference between the minimum and maximum of the equivalent absorption areas and resulting sampling value for the example of the occupied Nihon Seinenkan.

Name	S	A_{\min}	A_{\max}	$ \Delta A $	N_s
audience	970	679	873	194	3
rest	1933	155	657	503	7
floor	253	5	25	20	1
orchestra	87	74	70	4	1

cerning the different rooms obviously varies, so does the range of possible values that can be inferred from the existing sources. For instance, if from a written source it can be concluded that a given room featured a parquet floor, then the range of possible absorption values for the respective surfaces can be estimated with a small degree of uncertainty. For a different surface, the only available information might be, that it was covered with “porous absorptive material”. While we can still conclude that this surface will be characterized by absorption coefficients rising with frequency to a value close to 1 somewhere around 4–8 kHz, there is a higher level of ambiguity.

This level of ambiguity is taken into account in a second step, by modelling the range of possible absorption values by a triangular probability function, which is then sampled by a number of points representing intervals of equal likelihood. The number of points v_s is defined by the expected influence of the material with regard to the resulting total sound absorption. A certain surface is expected to have a high influence on the total sound absorption of the room, if the surface is large and or if the absorption coefficients are high. The expected influence of a given material is therefore expressed by the quotient of the two values, which is the equivalent absorption area A .

$$v_s = |A_{\max,125\text{Hz}-4\text{kHz}} - A_{\min,125\text{Hz}-4\text{kHz}}| \quad (4.2)$$

As an example, table 4.4 shows the surface materials of the occupied Nihon Seinenkan. The absolute amount of the difference between the minimum and maximum equivalent absorption areas for each frequency band are calculated to determine the number of sample points N_s for each surface.

Based on the number of sample points shown in Table 4.4, the range of

possible absorption values per surface is sampled by a triangular probability distribution, as shown in Figure 4.1. This process is done for all 31 one-third octave-bands for each material and for every room in the occupied and unoccupied state. Surfaces with a sample number of 1 are represented by a vector of absorption values representing the mean values of the specified range.

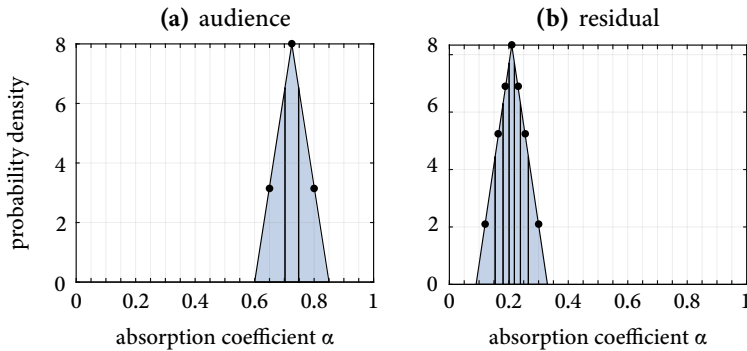


Figure 4.1 Example of the modelling of the absorption coefficients by a triangular probability distribution. The sampling points depend on the size of the equivalent absorption area. The example shows the probability density for the floor and the residual surfaces in the occupied Nihon Seinenkan.

For each of the combinations (21 in the example of Nihon Seinenkan shown above) a simulation is calculated from which a distribution of reverberation time curves of equal likelihood is derived. In the subsequent display of results for each room, these ranges are displayed using the mean value and the \bar{x} and the confidence intervals CI 95%.

4.1.6. Modelling the orchestra

Measurements with an occupied stage would be preferred in general, but are usually hard to organize. In the simulations, a simplified version of the orchestra can be introduced easily without the organizational effort that would occur during an in-situ measurement. It is to be expected, that with a large absorbing surface like the orchestra area close to the sound source, the sound strength will drop to some extent (Mike Barron 2005, 164).

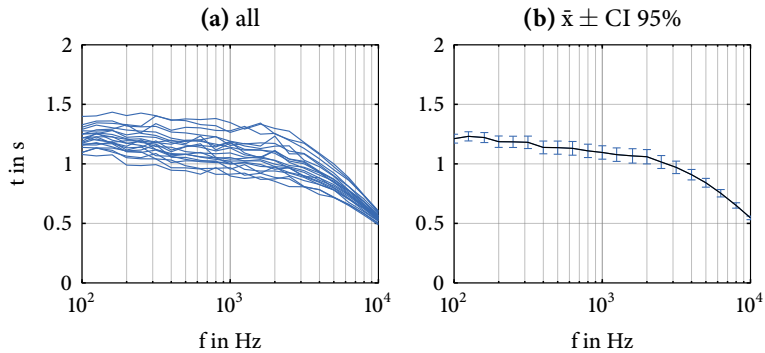


Figure 4.2 Calculated reverberation times resulting from the described process, showing all individual reverberation times on the left (a) and the resulting mean value \bar{x} and the confidence intervals CI 95% on the right (b).

4.1.7. Scattering coefficients

The random-incidence scattering coefficient s is defined as the “value calculated by one minus the ratio of the specularly reflected acoustic energy to the total acoustic energy reflected from a surface in a diffuse field” (ISO 17497-1 2004). It is agreed nowadays that the application of scattering coefficients in geometric simulations is necessary to obtain valuable results. This was confirmed in the Round Robins conducted by Bork (2005a, 2005b). Although the standard for measuring the scattering coefficient now has existed for some time, data from scattering coefficient measurements is still scarce. Theoretical models to describe the scattering behavior of rough surfaces, such as the one from Embrechts (2001) usually assume that the scattering increasing with frequency and with the average height of the diffusing objects. The most complete collection of measurement results to the authors knowledge can be found in (Vorländer 2008, 311–315).

The scattering values in the simulations presented in Section 4.2 have been set to the default value of 0.2 for all surfaces, except for the audience areas. Here a value given by Vorländer (2008, 311) has been applied.

4.1.8. Residual absorption

For the rooms for which reverberation times were known, a range of possible absorption coefficients was inferred from the existing reverberation times and matched with the existing knowledge about the surfaces from text sources. No fitting to an exact value was aimed at, but rather a range was defined, which considers on the one hand variations caused by the room

equipment, like the presence of curtains, and on the other hand changes of the audience absorption by occupation density. For those rooms for which no reverberation time measurements but rather detailed information on the surfaces was available, such as the Nanki Auditorium, these areas were defined according to the available text sources. For those rooms for which neither reverberation times nor detailed text sources were available, a wider range of possible residual absorption coefficients was defined.

4.2. Room models

For nine rooms of those presented in the previous chapter, sufficient data was found to be able to carry out a simulation. These rooms are:

1. As examples of room built before 1923 the hall of the Academy of Music, the hall of the Kanda Y.M.C.A, the Nanki Auditorium, and the Imperial Theatre.
2. As examples of rooms built after 1923:
 - a) three examples of the multi-purpose halls used after 1923: the Hi-biya Public Hall, the Nihon Seinenkan, and the Gunjin Kaikan
 - b) two theatres used after 1923: the Nippon Gekijō and the Kabuki-za

As a supplement to the information presented in this chapter, a dataset, which provides the 3D-geometric models used for the simulations in this chapter can be accessed at the research repository “deposit once” of the Institute of Technology Berlin. This dataset can be accessed at the following doi:

<http://dx.doi.org/10.14279/depositonce-15543>

4.2.1. The Hall of the Academy of Music

The hall of the Academy of Music still exists today in the new location in Ueno park. It was however, closed for renovations until recently for earthquake safety reasons. A visit to the auditorium was possible during one of the two trips to Tokyo, but the auditorium was not in a condition allowing measurements but measurements have been carried out by the Sakuma Lab of the Tokyo University in 2008 and 2009. Measurements of reverberation times of the unoccupied state with opened and closed curtains were carried out by Yurugi et al. (2009). Simulations of the auditorium were carried out in a number of different conditions, such as with and without the vaulted part of the ceiling (Yurugi et al. 2008). The different historical conditions of the stage were also investigated (Yasuda et al. 2008), but not the changed seating conditions.

The geometric model was built based on the detailed drawings available

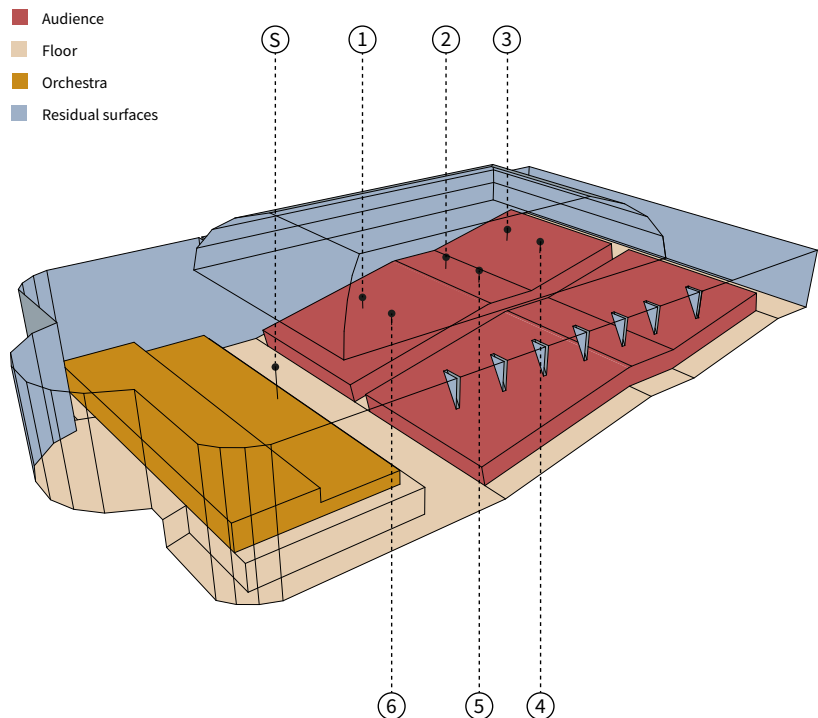


Figure 4.3 Geometric model used in the simulation of the hall of the Academy of Music ($V = 1,885 \text{ m}^3$), showing the source and receiver positions and the materials applied using different colours.

Table 4.5 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the hall of the Academy of Music.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs lightly upholstered	0.15	0.25	0.45	0.53	0.58	0.60	4
residual sog	0.25	0.26	0.27	0.28	0.29	0.30	5
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

in the renovation report (Bunkazai kenzōbutsu hozon gijutsu kyōkai 1987). A range of residual absorption coefficients was specified so that the unoccupied results would be in the range of the results measured by Yurugi et al. (2009). Values for lightly upholstered chairs were used for the audience. While the introduction of fixed seats after the renovation resulted in a capacity of 320 fixed seats, sources from the period of interest here report audiences between 600 and 800 people.³⁸⁶ No simulation of the unoccupied state with wooden chairs upholstered with leather, as can be observed in the available pictures (see Figure 3.7), was carried out.

³⁸⁶ *Deutsche Japan-Post*, No. 31, November 2, 1905, 9

The effect would most likely be an increased gap between the occupied and unoccupied condition. While the free standing wooden chairs would have shown a lower absorption coefficient than the fixed upholstered seats,

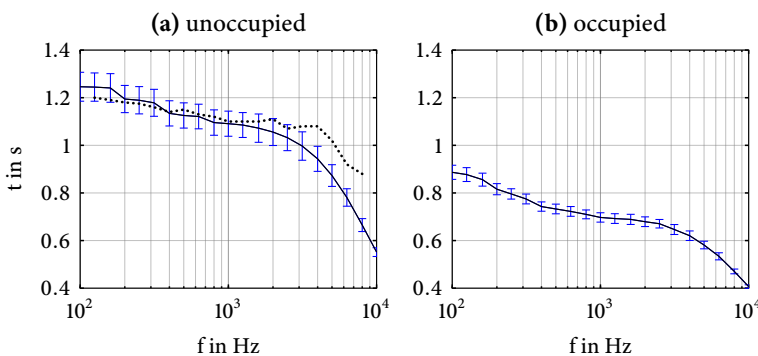


Figure 4.4 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the hall of the Academy of Music, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b), the dotted line indicates the measurement results.

the higher density of the audience seating would have resulted in similar or higher values for the absorption properties of the occupied audience area. The stage of the auditorium has been constantly increased in size, and was changed a total of 8 times between 1890 and 1959 (see Figure 3.9). The stage was included in the model in the condition specified for the time between 1905 to 1932, when many Japan premiere performances were given at this auditorium. Interesting enough, when assuming the 50 musicians on stage, mentioned by an observer in a concert in 1905, and when assuming 1.5 m^2 per musicians, 50 musicians just fit on the stage that was extended in size in 1905.

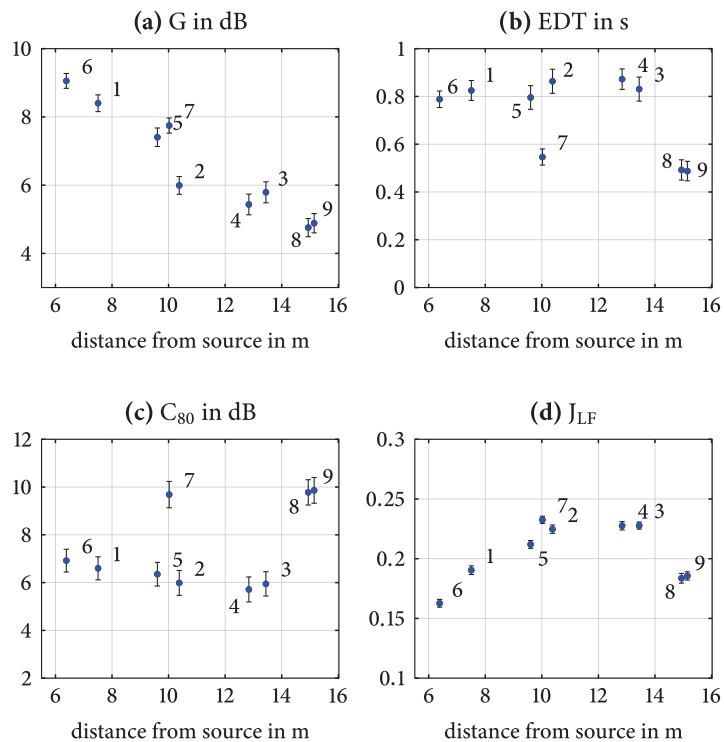


Figure 4.5 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the hall of the Academy of Music.

4.2.2. The Kanda Y.M.C.A

The original structure was destroyed in the Kantō earthquake of 1923, and was not rebuilt. Measurements of reverberation times could therefore not be carried out and the author is not aware of any reverberation time measurements of this room. The geometric model was created based on the preserved drawings by Josiah Conder (Katō 1980). In drawings in the source mentioned above, wooden benches are shown, and corresponding absorption coefficients were assumed for the audience areas on both floors.

With regard to the condition of the interior walls, no information is given in the text sources, therefore the general residual sound absorption was assumed.

The small stage shown in the drawings with a floor space of would have

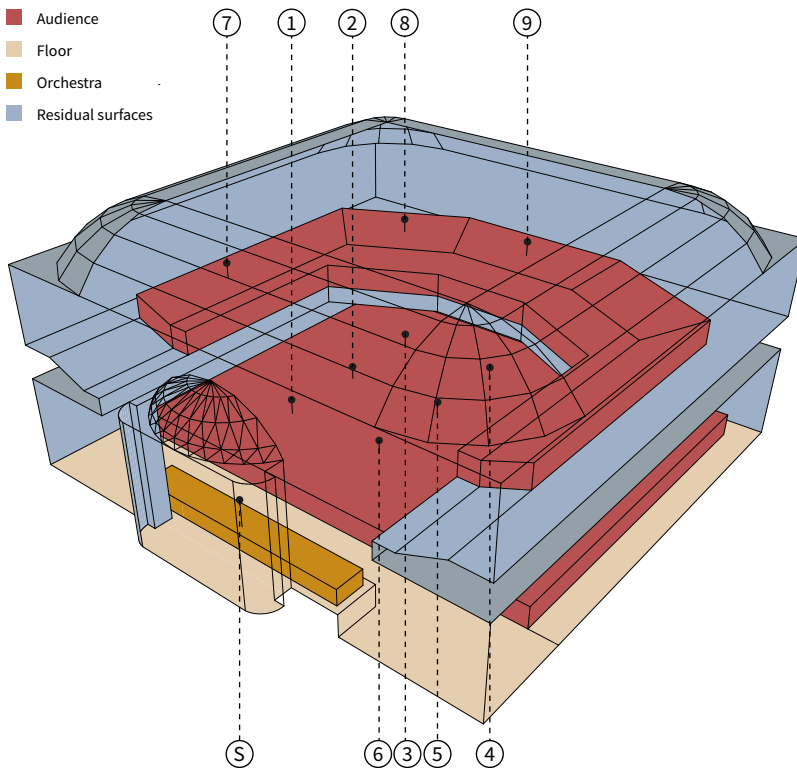


Figure 4.6 Geometric model used in the simulation of the Kanda Y.M.C.A. ($V = 2,696 \text{ m}^3$), showing the source and the materials applied using different colours.

Table 4.6 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Kanda Y.M.C.A.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs wood	0.15	0.25	0.45	0.53	0.58	0.60	3
residual	0.25	0.23	0.21	0.21	0.21	0.21	7
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

only allowed an orchestra of less than 10 people. An available photo shows a number of musicians on stage clearly exceeding the boundaries of the stage shown in the drawings, therefore it is assumed that the stage size was enlarged for later concerts. A concert of the Meji Music Society featured an orchestra of 15 musicians and the respective space has been assumed for the size of the orchestra.

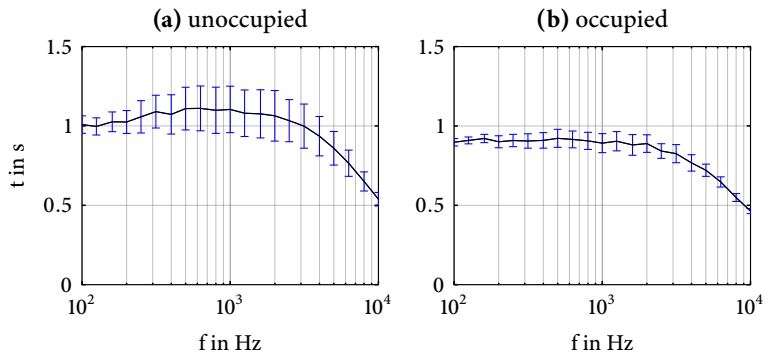


Figure 4.7 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Kanda Y.M.C.A, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

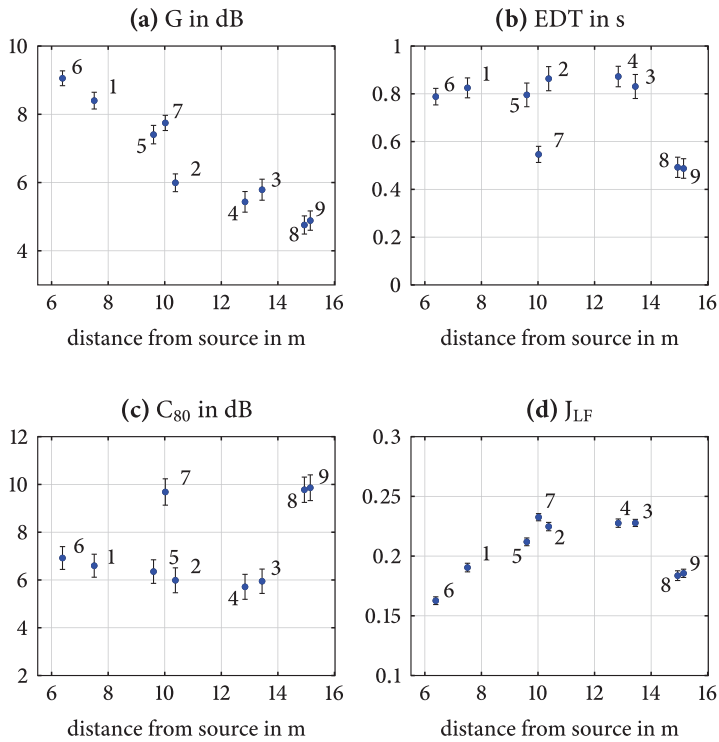


Figure 4.8 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Kanda Y.M.C.A

4.2.3. The Imperial Theatre

The original theatre was destroyed in the earthquake in 1923. Therefore, no reverberation time measurements could be carried out and the author is not aware of any reverberation time measurements available for this theatre. The geometric model was created, on the basis of floor plans reproduced in a publication by the Waseda University Theatre Museum (Waseda daigaku engaki hakubutsukan 2002). The stage house was not included in the model. It was assumed that the major part of the sound emitted towards the stage tower is absorbed there and not reflected back into the audience area.

An orchestra box resembling the orchestra that Yamada Kōsaku assembled for the concert of the Philharmonic Society in December of 1914 (see page 58) was inserted in the model.

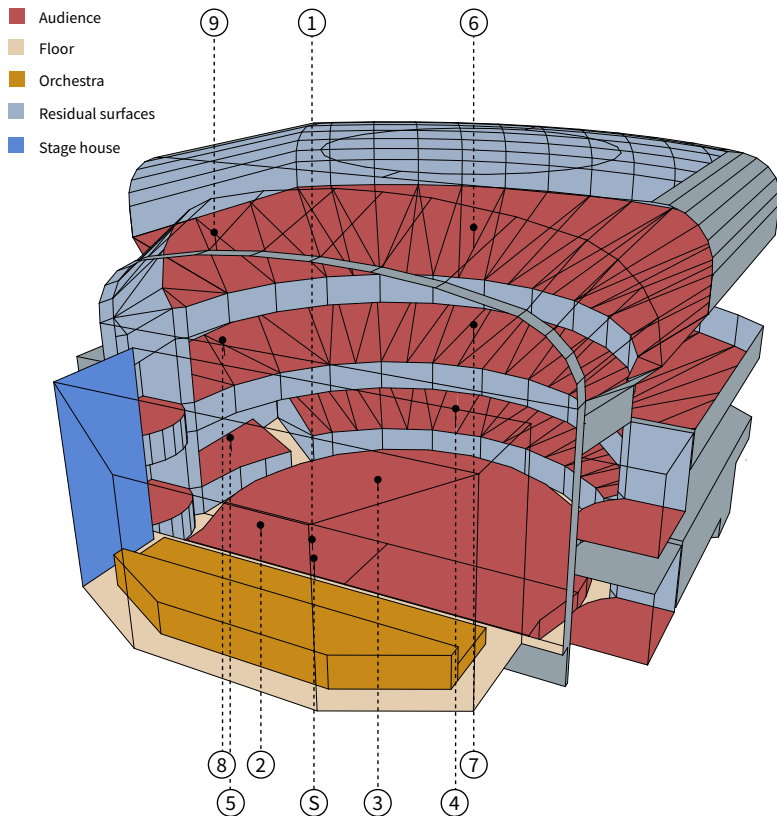


Figure 4.9 Geometric model used in the simulation of the Imperial Theatre ($V = 5,085 \text{ m}^3$), showing the source and receiver positions and the materials applied using different colours.

Table 4.7 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Imperial Theatre.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	6
residual	0.25	0.23	0.21	0.21	0.21	0.21	3
floor min	0.08	0.07	0.06	0.06	0.06	0.06	1
stage opening	0.98	0.98	0.98	0.98	0.98	0.98	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

In 1914, Yamada Kosaku reported his discontent about the acoustic conditions on stage during the preparations for the first symphonic concert of the Philharmonic Society and reflectors that he had mounted above the stage as a result (NHK *kōkyō gakudan* 1977). However, neither the position nor the condition of these reflectors is known, so the simulation did not take such a reflector into account.

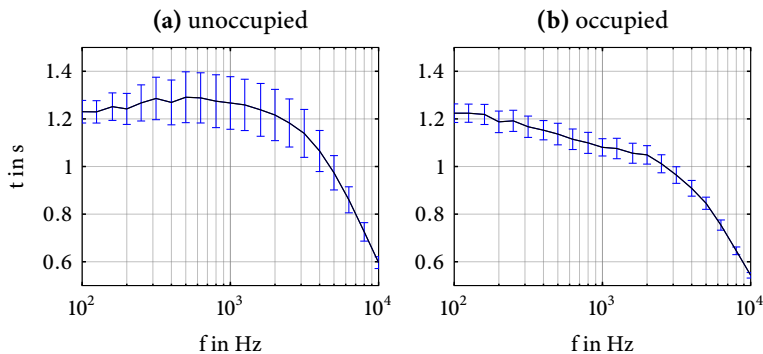


Figure 4.10 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Imperial Theatre, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

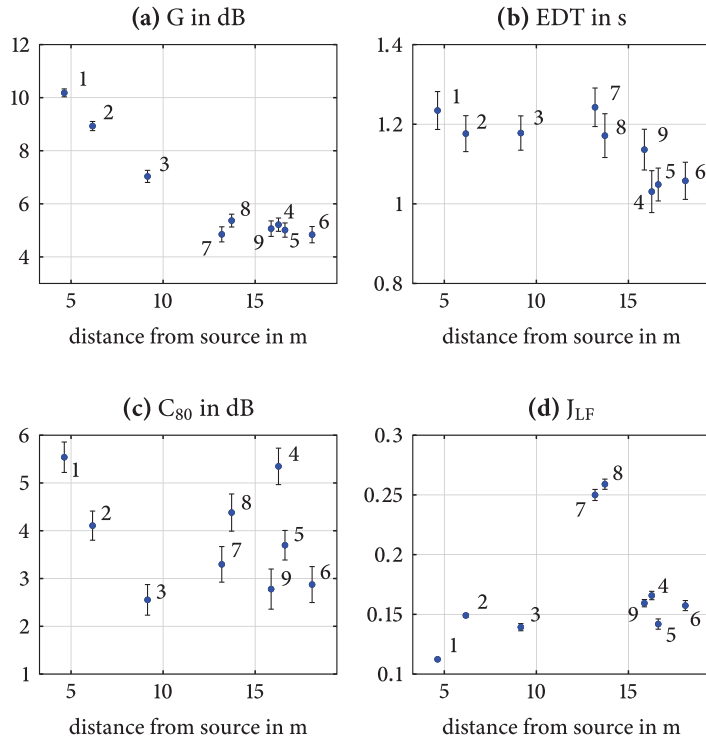


Figure 4.11 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Imperial Theatre.

4.2.4. The Nanki Auditorium

The Nanki Auditorium, opened in 1918, was heavily damaged in the Earthquake in 1923 and eventually pulled down in 1931. To the authors knowledge, no measurements of reverberation times exist for the Nanki Auditorium. In an article in the “Omi Mustard Seed” Vories mentioned that “the slightest tones of the speaking voice and the most delicate trills of the musical instruments come out clear and distinct in any part of the room”, so clarity seems to have been the deciding design goal in this case (Vories 1918, 174), which explains the extensive use of absorptive materials used in the room.³⁸⁷ The geometric model was created based on plans which were supplied by the architectural office, which still exists today.³⁸⁸

In the article mentioned above, the wall surfaces are described in some detail. Concerning the wall finishing, the architect himself describes that “the wall plaster is furred out about two inches all around”, and that “the

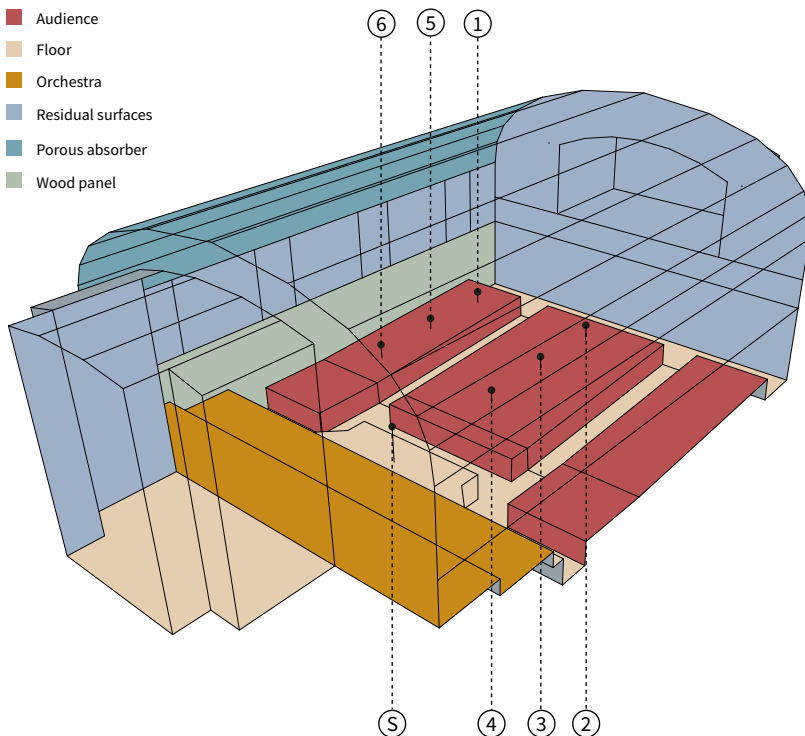


Figure 4.12 Geometric model used in the simulation of the Nanki Auditorium ($V = 2,010 \text{ m}^3$), showing the source and receiver positions and source-receiver distances, as well as the materials applied using different colours.

³⁸⁷ This room was examined in 2014, but the previously mentioned article was not known to the author at that time (Büttner et al. 2014). With the absorption materials used as described in the article by Vories, the reverberation time must have been much shorter than reported in 2014.

³⁸⁸ 一粒社ヴォーリズ建築事務所 W. M. Vories & Company Architects Ichiryusha

Table 4.8 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nanki Auditorium.

Type	Absorption coefficient a_s at f_c in Hz						N_s
	125	250	500	1k	2k	4k	
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	2
rest plate	0.29	0.20	0.11	0.09	0.07	0.06	1
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
rest porous	0.25	0.63	0.79	0.85	0.88	0.84	4
rest solid	0.17	0.13	0.10	0.08	0.07	0.07	2
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

large windows are set up nine feet above the floor and below them is a wainscote of oak panels, vibrating with the orchestra”. Concerning the ceiling, it is mentioned that “the final feature of the acoustics is achieved by the entire ceiling being covered with felt a quarter-inch thick. Being made of Hy-rib metal-lath and being arched, it would form a a frightful echoing surface but for this treatment” (Vories 1918).

Concerning the seating it is described that the auditorium was “seating 350 guests in comfortable opera chairs of oak upholstered in leather”. This description of the interior surfaces was translated to the model by sampling the materials, given in Table 4.8. No information on the floor material is available in the sources, but the photo suggests a linoleum floor. An avail-

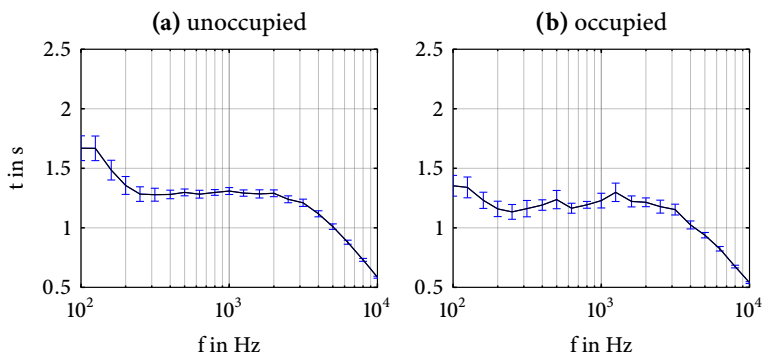


Figure 4.13 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nanki Auditorium, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

able photograph of the interior of the auditorium shows an orchestra of approximately 40 people loosely fitting the whole stage. For the simulation of the occupied state a rectangular box occupying the stage as seen in the photo was added to the model.

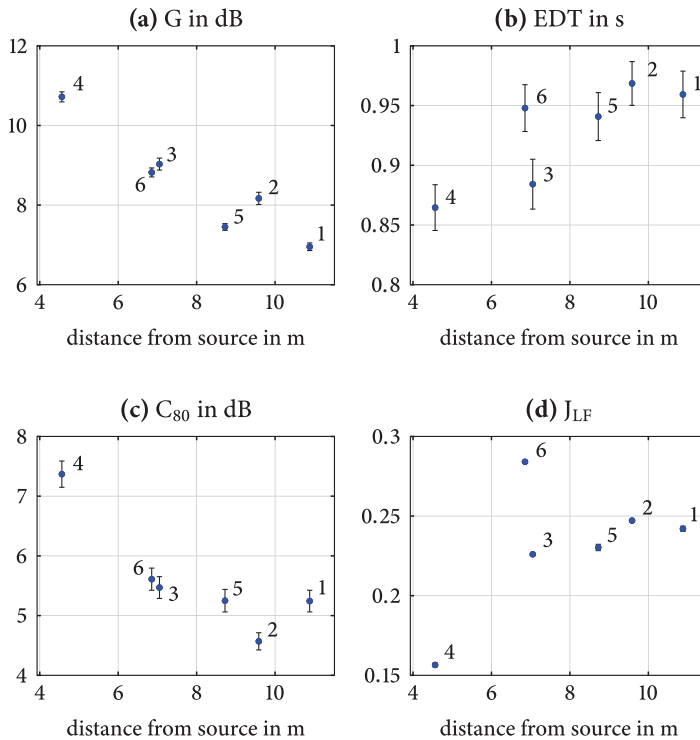


Figure 4.14 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Nanki Auditorium.

4.2.5. The Kabuki-za

The building in the condition of interest for this study was destroyed in the air-raid on Tokyo in 1945. Regarding the acoustic conditions, the most notable changes were the replacement of the flat coffered ceiling by a vaulted ceiling, and the introduction of heavier upholstered chairs. The geometric model was created based on the plans found in the *Journal of the Japanese Architects*.³⁸⁹ Measurements of the fourth version of the building were carried out by Yabushita et al. (2012), and revealed reverberation times of around 1 s in the unoccupied case. Due to the loss in cubic volume by introducing the vaulted ceiling, and by the introduction of heavier upholstered chairs, the reverberation times must have been longer than this in the previous third version of the building. So far, no measurements of reverberation time could be found for the time between 1924 and 1945.

The structure in general is made of reinforced concrete. According to the

³⁸⁹ *Journal of the Japanese Architects* 39, no. 467, November 1925, 629

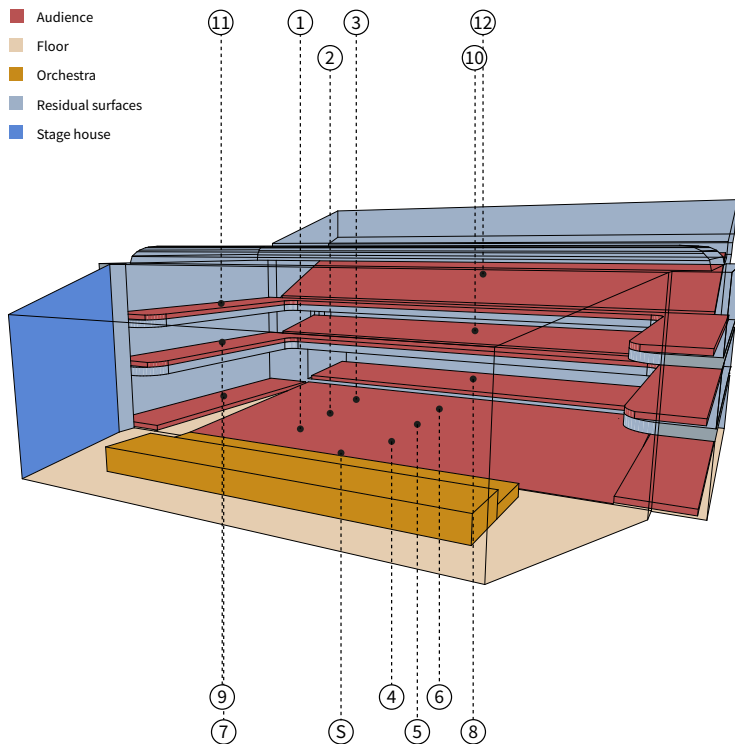


Figure 4.15 Geometric model used in the simulation of the Kabuki-za ($V = 9,928 \text{ m}^3$), showing the source and receiver positions and the materials applied using different colours.

Table 4.9 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Kabuki-za.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	6
residual	0.25	0.23	0.21	0.21	0.21	0.21	3
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
stage opening	0.98	0.98	0.98	0.98	0.98	0.98	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

article in the Journal of the Japanese Architects,³⁹⁰ the walls were plastered and then painted with “long life paint” for fire resistance. For these surfaces, the standard residual surface materials were sampled. The available photos show curtains which could be used to close of the boxes and would have introduced some absorption. For the coffered ceiling, a range of absorption values for wood with airspace behind was sampled. Available photos from the fourth version of the auditorium show lightly upholstered seats with wooden armrests.

The Kabuki-za was used for concerts when an especially large and representative venue was required, such as the Russo-Japanese concert or the concert commemorating the 2,600th anniversary of the empire (see Section 2.2.4). For the simulations, the space that would have been occupied by the

³⁹⁰ *Journal of the Japanese Architects* 39, no. 467, March 1925, 30

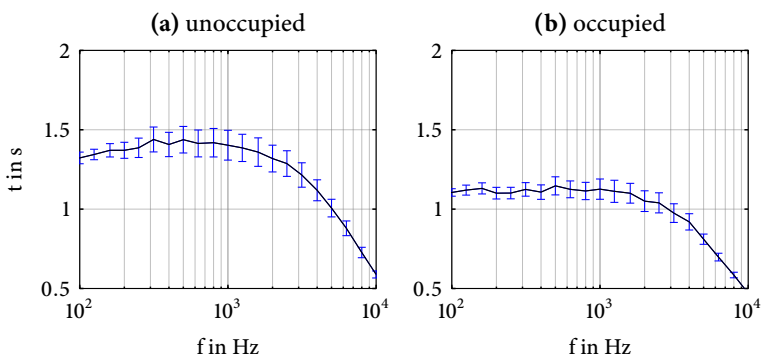


Figure 4.16 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Kabuki-za, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

orchestra which performed in the Russo-Japanese concerts was included in the model (see page 63). The pictures of the orchestra on the stage of the Kabuki-za show a partition behind the orchestra. No documents were found, whether this was a solid partition, which would have reflected most of the sound or a thin curtain. For the simulations, the stage volume was cut off at this visible partition, and a non-reflective surface was assumed.

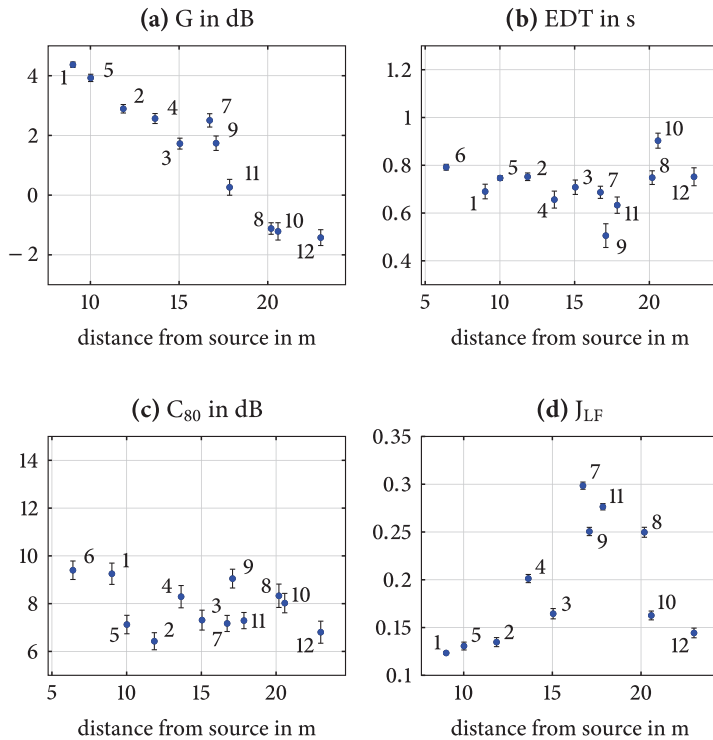


Figure 4.17 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Kabuki-za.

4.2.6. The Nihon Seinenkan

The auditorium in its original state disappeared in the major renovations, which took place in 1977, so no measurements could be carried out. Satō (1930, 16) states a volume of $V = 5,420 \text{ m}^3$, and a single value measured reverberation time of 1.44 s. The date of the publication suggests that this estimation concerns the earliest state of the building, with two balconies. The greatest challenge in creating the geometric model was that although the ground plans of the original building condition were available, no longitudinal section or cross section could be found. However, photos of the stage and the two balconies at the back of the auditorium have been preserved, as well as a drawing of the stage including the curvature of the ceiling. These sources were used to approximate a possible ceiling shape and from that a three-dimensional model. There is, however, a discrepancy between the resulting room volume and the room volume given by Satō in the above mentioned publication. Even assuming the smallest possible ceiling height that seems plausible, this results in a higher volume in the model than indicated by Satō.

This deviation is also reflected in the resulting reverberation times for the

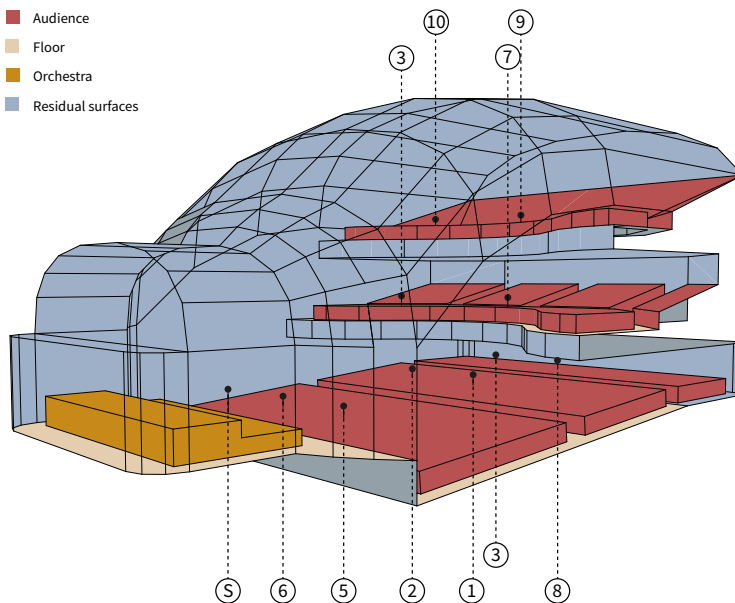


Figure 4.18 Geometric model used in the simulation of the Nihon Seinenkan ($V = 6,241 \text{ m}^3$), showing the source and receiver positions and source-receiver distances, as well as the materials applied using different colours.

Table 4.10 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nihon Seinenkan.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	2
residual	0.25	0.23	0.21	0.21	0.21	0.21	7
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

unoccupied state, assuming that the reverberation time specified by Satō describe the unoccupied situation. The preserved photos of the interior show slightly upholstered chairs with wooden armrests so the corresponding absorption values have been sampled for the unoccupied and occupied conditions.

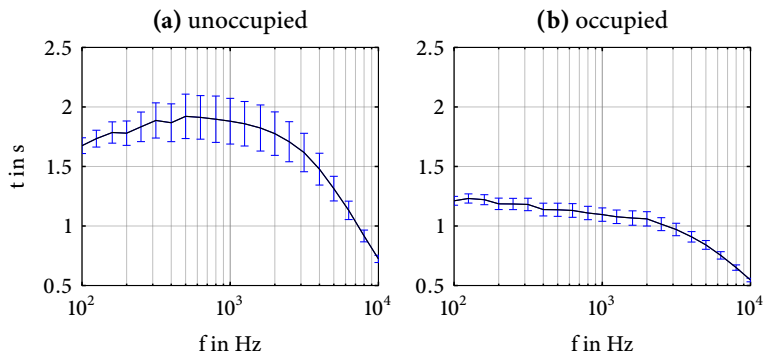


Figure 4.19 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nihon Seinenkan, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

The stage of Nihon Seinenkan constitutes a closed volume. Photos showing the New Symphony Orchestra on the stage of the Nihon Seinenkan, show the orchestra occupying the whole stage (Sano 2007). A box with a corresponding size of 53 m^2 representing the orchestra was inserted into the model.

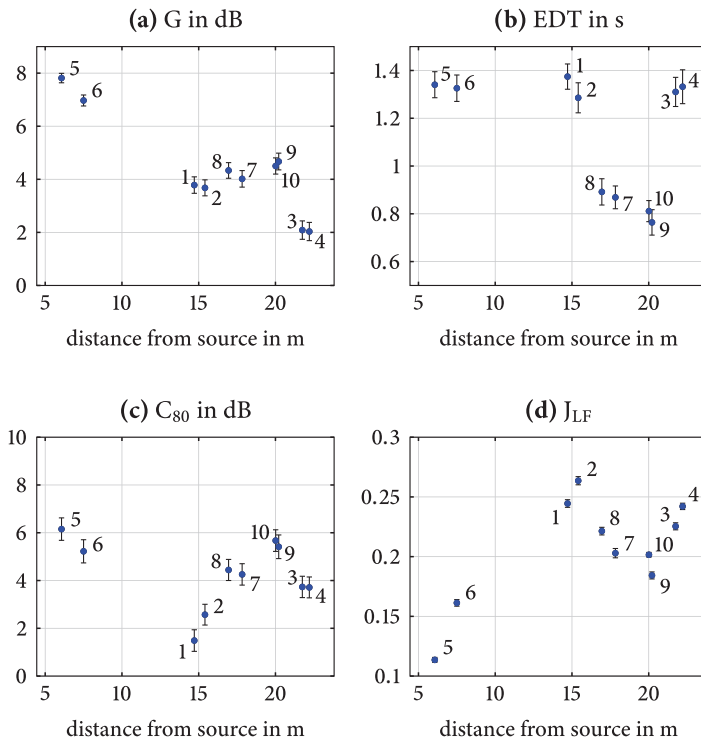


Figure 4.20 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Nihon Seinnekan.

4.2.7. The Hibiya Public Hall

The Hibiya public hall survived the air raids on Tokyo in 1945 mostly intact. The building however currently being renovated, which is why it could not be accessed for measurements or a detailed investigation of the surfaces. When comparing the existing plans, the stage tower was altered in a earlier renovation. The situation tested here considers the condition of the building at the time of the opening. This condition was documented in a number of sources. The model used here for the simulations was created based on the drawings printed in the Journal of the Japanese Architects.³⁹¹ Reverberation time measurements were carried out and published by Hirayama (1954). Hirayama noted that a reflecting board³⁹² was used when music concerts or lectures were given, so measurements with and without the reflecting board were carried out.

The surface materials envisioned in the planning stage for the Hibiya Pub-

³⁹¹ *Journal of the Institute of Japanese Architects*, 43 (528), December 1929

³⁹² 反射板

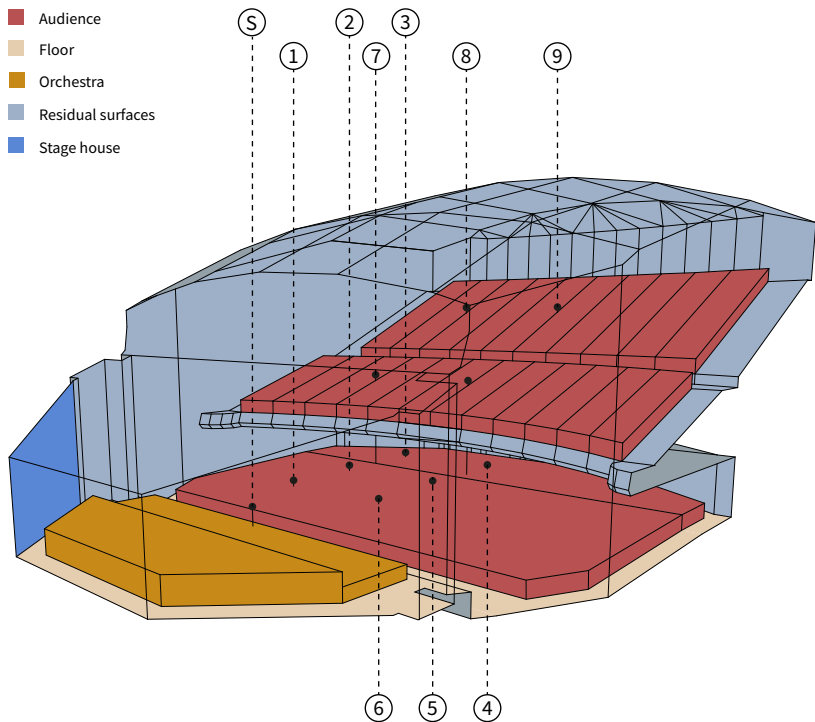


Figure 4.21 Geometric model used in the simulation of the Hibiya Public Hall ($V = 12,392 \text{ m}^3$), showing the source and receiver positions and the materials applied using different colours.

Table 4.11 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Hibiya Public Hall.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	5
residual hib	0.25	0.27	0.28	0.30	0.31	0.32	4
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
stage opening	0.98	0.98	0.98	0.98	0.98	0.98	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

lic hall, are described in a paper by Satō (1930). Linoleum is specified as the floor material. Concerning the wall materials it is stated that mostly plaster, some wood and “insulation”³⁹³ was used. The exact location of these materials is not specified, but it is mentioned that about 50 % was covered with plaster, 30 % was covered with insulation, and 20 % was covered with wood. For the insulation, an absorption value of 0.3 was specified. A fitting of the residual surface results in a residual absorption coefficient with a maximum at 500 Hz with an absorption of 0.35. This fits well to a combination of rather hard surfaces, and some insulation (mineral wool behind surface).

³⁹³ インシュールライト

From the available information, a residual material called “residual hib”

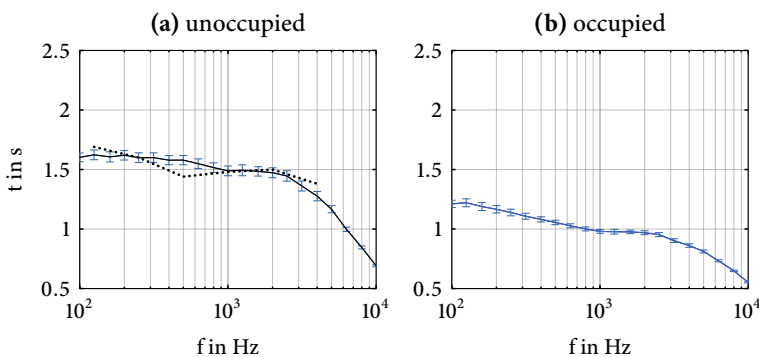


Figure 4.22 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Hibiya Public Hall, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b), the dotted line indicates the measurement results.

was created sampling values between 0.2 and 0.35. The conductor Joseph Rosenstock describes his first days with the New Symphony orchestra in the Hibiya Public Hall and mentions that after a few rehearsals he advised to install a reflecting board above the orchestra (Rosenstock 1980, 37). No information about the size or location of the reflecting board could be found. In later years an orchestra shell was installed, but for the simulations considered here, the stagehouse was cut off at the place of the orchestra enclosure. The size of the orchestras that performed at the Hibiya Public Hall is sufficiently documented (see Section 2.2.4). Assuming an average space occupied per musician of 1.5 m^2 and an orchestra of 75 musicians, an orchestra box with a size of 112.5 m^2 was introduced in the model for the occupied state.

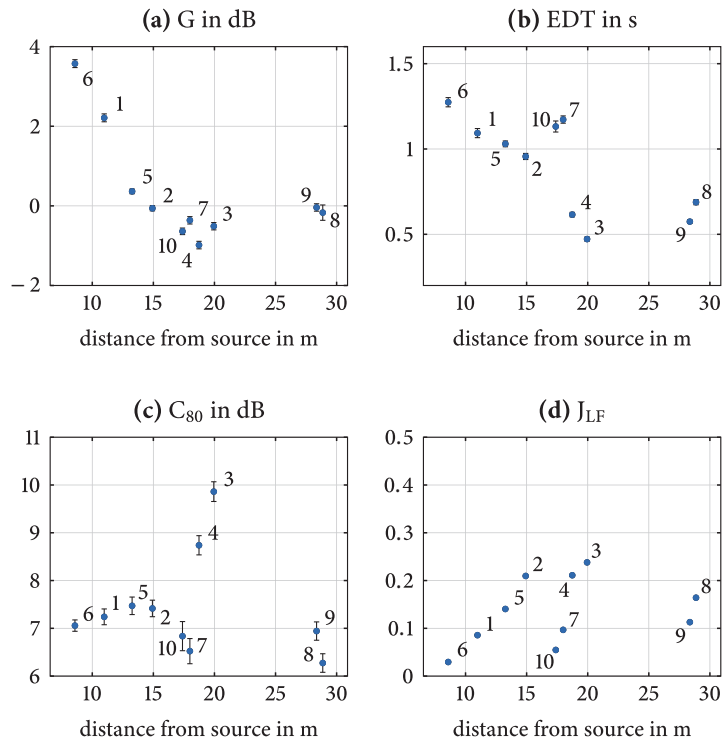


Figure 4.23 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Hibiya Public Hall.

4.2.8. The Nippon Gekijō

The Nippon Gekijō was by far the largest venue that was investigated in this study, with a volume derived from the geometric model of approximately $30,000 \text{ m}^3$. It was closed in 1981 and no theatre with the same name took its place. The building could not be accessed for measurements, and no reverberation time measurement results were found. A publication with a variety of photos of the interior as well as floor plans and sections was published by the architects of the building (Ōbayashi gumi 1933). A geometric models was created based on the plans in this publication, which also includes a description of the wall materials, but most of the time the location of these materials is not specified.

The sidewalls and the ceiling seem to be made up of plaster. The sidewalls

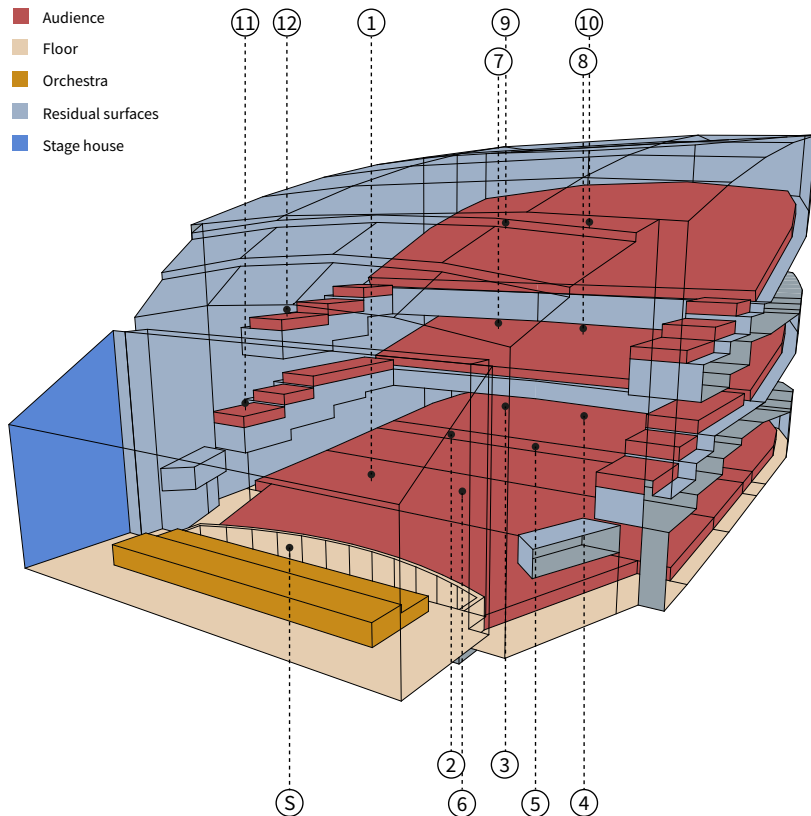


Figure 4.24 Geometric model used in the simulation of the Nippon Gekijō ($V = 31,140 \text{ m}^3$) stances, as well as the materials applied using different colours

Table 4.12 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nippon Gekijo.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph heavy occ	0.55	0.70	0.83	0.88	0.88	0.88	3
residual	0.25	0.23	0.21	0.21	0.21	0.21	6
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
stage opening	0.98	0.98	0.98	0.98	0.98	0.98	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

to a height of about 1 m were finished with a wooden veneer. Concerning the seating, the Japan Times mentions “sage green velvet upholstered chairs”.³⁹⁴ On the available photos, the upholstery in this theatre looks thicker than the light upholstery found in most of the other venues investigated here, therefore values for heavy upholstered audience seats were sampled.

³⁹⁴ *The Japan Times*, January 1, 1934, Nippon Gekijo Supplement

The stage house featured a stage tower. This volume was cut off from the model at the point where a visual partition can be seen in the photos showing the stage. At the beginning of its activity, the orchestra had about 50 musicians (see page 73). Assuming a space of 1.5 m² per musician, a box representing the orchestra with a size of 75 m² has been introduced to the model for the occupied case. The orchestra pit, located in front of the stage had a floor space of approximately 60 m² so it can be assumed that the

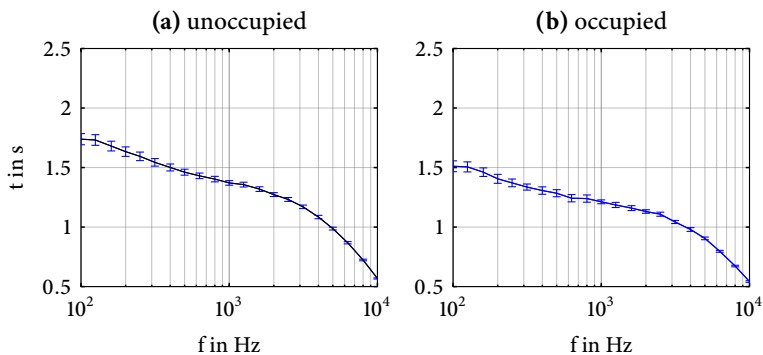


Figure 4.25 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nippon Gekijō, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b).

orchestra was placed on stage for orchestral concerts.

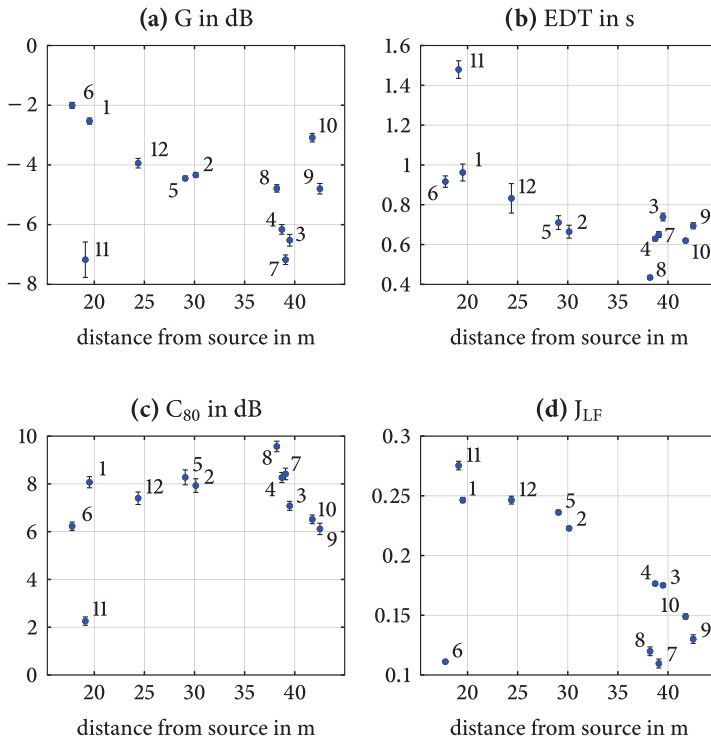


Figure 4.26 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Nippon Gekijo.

4.2.9. The Gunjin Kaikan

The current version of the building can still be found in the original location, but is currently not accessible since it is being renovated after the ceiling of the main hall collapsed during the Tōhoku earthquake on March 11, 2011. A geometric model was created based on the floor plans printed in the *Journal of the Institute of Japanese Architects*³⁹⁵ as well as section cuts shown in an article by Satō (1934). In this article, a single value reverberation time of “ $T_{63}=1.0$ sec” is specified. It is unclear whether this is a single octave value or an average value, or in which state it is measured. In the same article, a volume of the main hall of $V = 6,986 \text{ m}^3$ and a capacity of 1,500 people is specified.

No fitting of the reverberation time was carried out, but the materials

³⁹⁵ *Journal of the Institute of Japanese Architects* 48, no. 587, July 1934, 815

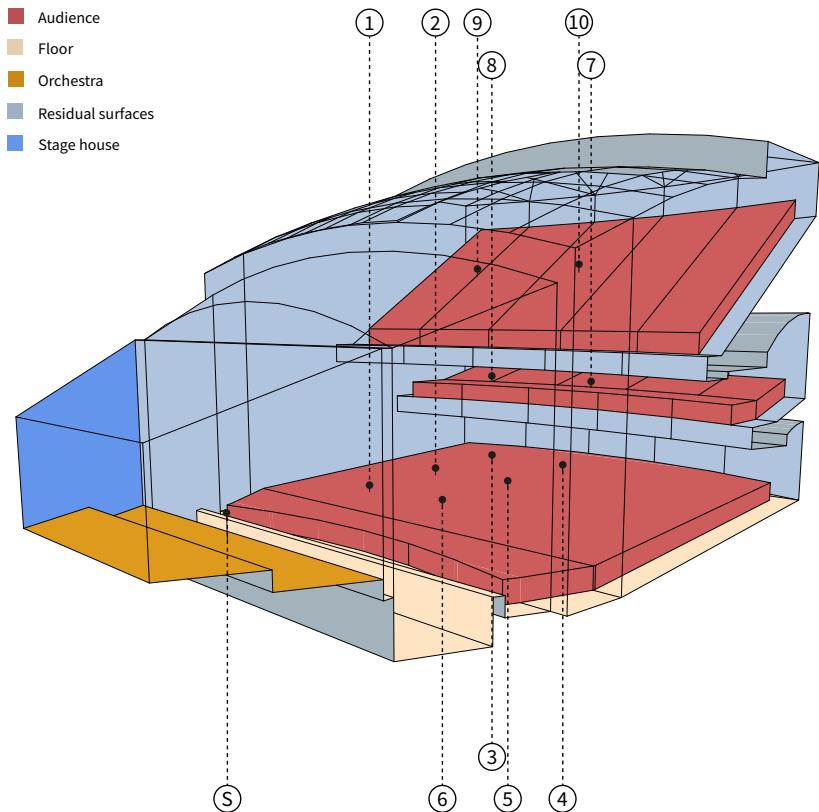


Figure 4.27 Geometric model used in the simulation of the Gunjin Kaikan ($V = 5,715 \text{ m}^3$), showing the source and receiver positions and materials applied using different colours.

Table 4.13 Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Gunjin Kaikan.

Type	Absorption coefficient a_s at f_c in Hz						
	125	250	500	1k	2k	4k	N_s
chairs uph light	0.38	0.49	0.63	0.73	0.80	0.80	3
residual	0.25	0.23	0.21	0.21	0.21	0.21	7
floor	0.08	0.07	0.06	0.06	0.06	0.06	1
stage opening	0.98	0.98	0.98	0.98	0.98	0.98	1
orchestra	0.35	0.58	0.70	0.80	0.83	0.83	1

specified below were sampled. The materials used in the hall are specified in the article in the Journal of the Japanese Architects mentioned above, but the location of the material is not detailed.³⁹⁶ It is specified that the floor was made up of linoleum, and that the main walls of the staircase room and the main hall are made of reinforced concrete. The general residual absorption coefficients have been applied. The results of the simulation for the occupied state fit well to the measured value given in the publication by Satō cited above.

³⁹⁶ *Journal of the Japanese Architects* 48, no. 587, July 1934, 84

For the simulation, a situation was assumed in which no orchestra shell was present. Instead it was assumed that the sound dissipating towards the stage house would disappear in the stage house and little to no sound would

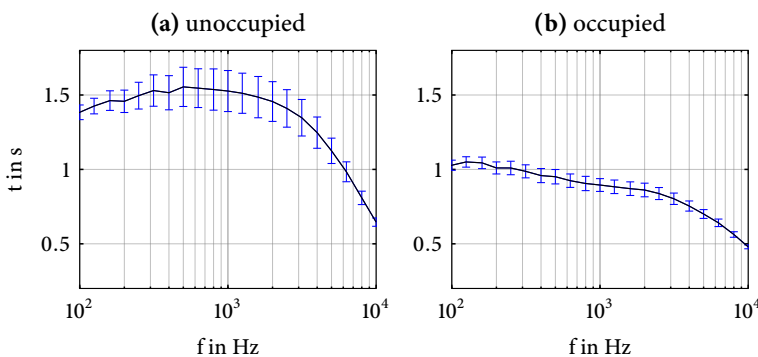


Figure 4.28 Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Gunjin Kaikan, displayed at 1/3 octave-band center frequency f , for the unoccupied case (a) and the occupied case (b), the red line indicates the measurement results.

return, so a high absorption coefficient was set. The SketchUp model has a volume of $V = 5,700 \text{ m}^3$. The difference of this volume compared to the value stated by Satō can probably be explained by the stage house being included in Satō's calculations and not included in the SketchUp model. No photo of an orchestra performing in the Gunjin Kaikan could be found.

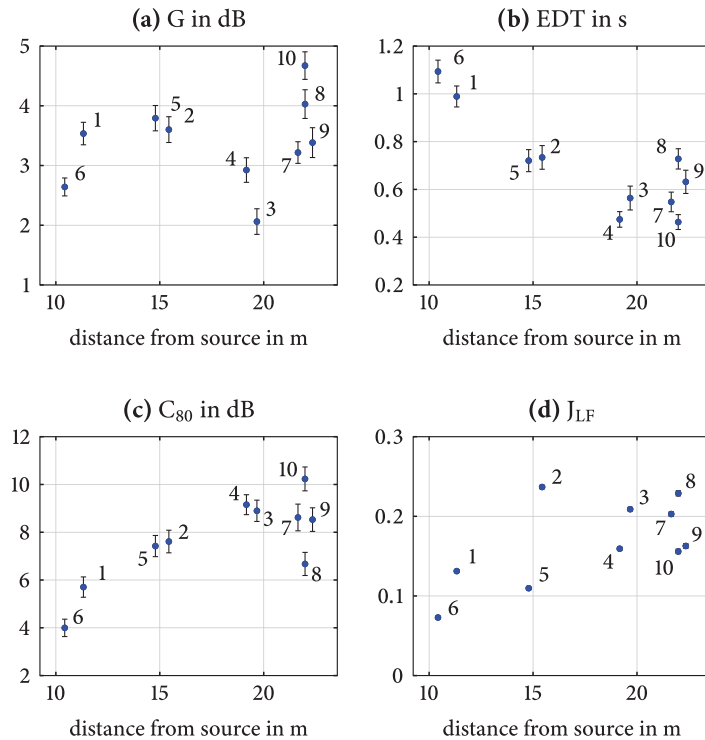


Figure 4.29 Room acoustic parameters sound strength (a), early decay time (b), clarity (c) and lateral fraction (d) as a function of the distance from the source for the occupied state of the Gunjin Kaikan.

4.3. Discussion of the room acoustic parameters

In this section, the room average mean values are considered for a discussion of the derived parameters in the context of concert hall history. It must be kept in mind, that the values displayed actually represent an approximation of a range of possible values, which have been averaged for the sake of the following discussion. Figure 4.30 shows the occupied reverberation time as a function of the room volume for the rooms in Tokyo which were used before the earthquake in 1923 (blue), the rooms built after 1923 (orange), some famous examples of nineteenth century shoebox concert halls (green) and some examples of “direct sound halls” (red) built in the early twentieth century (see Chapter 5). The rooms used for symphonic concert before 1923 featured volumes below $5,000 \text{ m}^3$ and reverberation times below 1.5 s. After the earthquake, the rooms increase in volume, but the reverberation times did not increase significantly, staying below 1.5 s and even below the values given as examples for the “direct sound halls”.

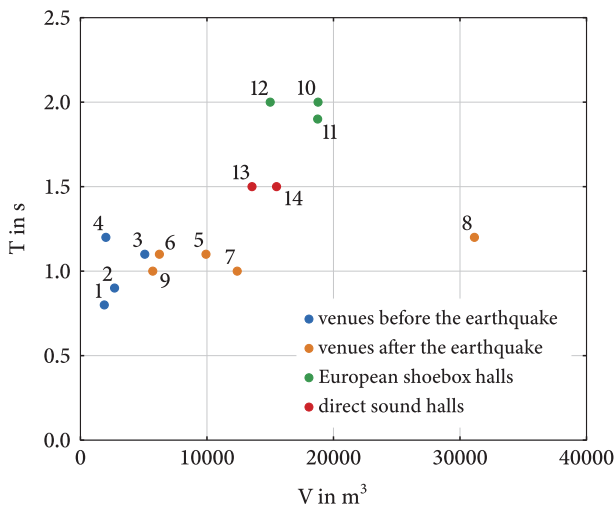


Figure 4.30 Reverberation times t as a function of the volume V (occupied), for the Hall of the Academy of Music (1), Kanda Y.M.C.A (2), Imperial Theatre (3), Nanki Auditorium (4), Kabuki-za (5), Nihon Seinekan (6), Hibiya Public Hall (7), Nippon Gekijo (8), Gunjin Kaikan (9), Concertgebouw Amsterdam (10), Symphony Hall Boston (11), Musikverein Vienna (12), Liverpool Philharmonic Hall (13), Salle Pleyel Paris (14).

Figure 4.31 shows the G values as a function of the room volume. The values given here are unoccupied state values, since no occupied values are given in the literature for the sake of comparison. The G values of the Kabuki-za (5), Gunjin Kaikan (9), and the Hibiya Public Hall (7), drop significantly, which makes sense due to the increase of the volume without an increase of reverberation time. Due to the added absorption introduced by the audience in the occupied condition, the strength factor would be reduced to some degree in the occupied state.

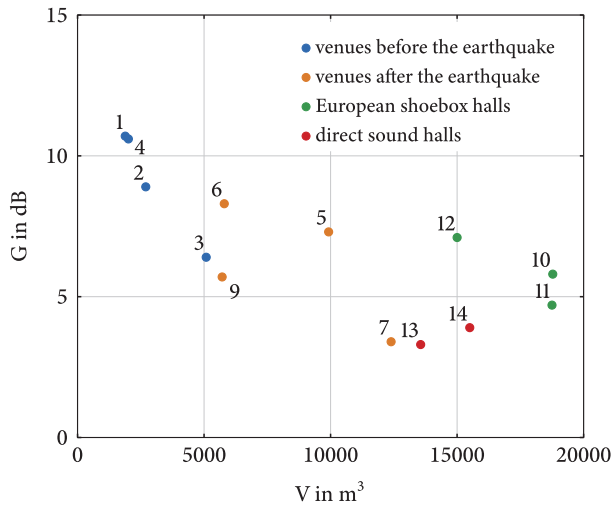


Figure 4.31 Strength factor G as a function of the volume V (unoccupied), for the Hall of the Academy of Music (1), Kanda Y.M.C.A (2), Imperial Theatre (3), Nanki Auditorium (4), Kabuki-za (5), Nihon Seinekan (6), Hibiya Public Hall (7), Nippon Gekijo (8), Gunjin Kaikan (9), Concertgebouw Amsterdam (10), Symphony Hall Boston (11), Musikverein Vienna (12), Liverpool Philharmonic Hall (13), Salle Pleyel Paris (14).

Figure 4.32 shows the C_{80} values as a function of the reverberation time. The clarity is inversely correlated to the reverberation time, and longer reverberation times yield lower clarity values, so the clarity values in the unoccupied state will be higher than those in the occupied state. The values given here are unoccupied state values for the same reason given above. In this case the rooms in Tokyo before and after 1923 are in the same range of C_{80} values between 2.5 and 5 dB, and in proximity of the values for the “direct sound halls”. While Beranek (1996, 555) specified values between 0 to -4 dB as optimum, Michael Barron (2010, 67) mentions values between -2 and +2 dB as optimum. Temporal blending of notes, that was found suitable for symphonic music especially of the romantic repertoire, with clarity values between -2.5 and -5 dB would not have been observed in these halls.

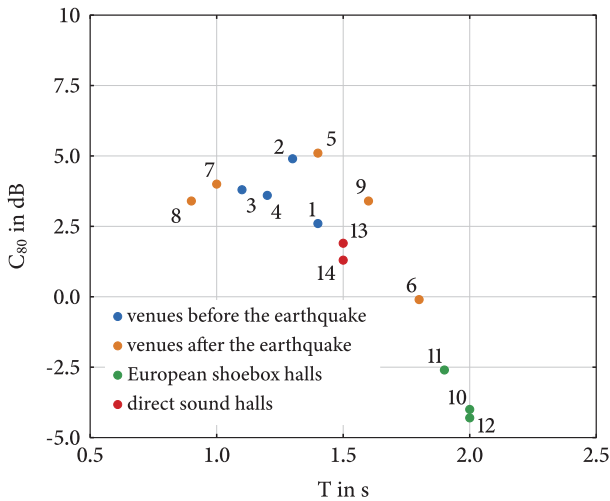


Figure 4.32 Clarity C_{80} as a function of the reverberation time T (unoccupied), for the Hall of the Academy of Music (1), Kanda Y.M.C.A (2), Imperial Theatre (3), Nanki Auditorium (4), Kabuki-za (5), Nihon Seinekan (6), Hibiya Public Hall (7), Nippon Gekijo (8), Gunjin Kaikan (9), Concertgebouw Amsterdam (10), Symphony Hall Boston (11), Musikverein Vienna (12), Liverpool Philharmonic Hall (13), Salle Pleyel Paris (14).

Figure 4.33 shows the J_{LF} values as a function of the room width. The differences between the occupied and the unoccupied state for J_{LF} are smaller than the JND given in the ISO standard, therefore the values given here can be seen as representative both for the occupied and the unoccupied state. The values given are room averages, but as the results for the individual rooms have shown, receiver positions closer to side walls yield higher J_{LF} results. A reasonable approach would be to compare only the positions along the centre axis. However, since the values available in the literature for the sake of comparison are room average values measured for the unoccupied state, these values are given here. The multi-purpose rooms built in Tokyo after 1923 with a large room width and an ellipsoidal floor plan (5,7,8,9) show lower values of lateral fraction, while the Nihon Seinenkan, with a smaller room width and parallel side walls (6) exhibits considerably higher values.

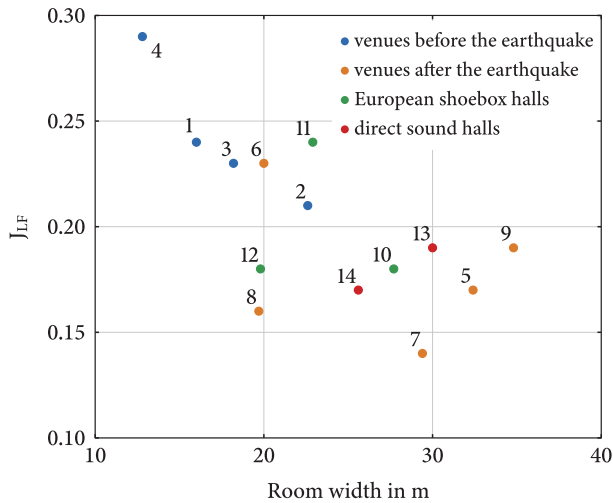


Figure 4.33 J_{LF} as a function the room with (unoccupied), for the Hall of the Academy of Music (1), Kanda Y.M.C.A (2), Imperial Theatre (3), Nanki Auditorium (4), Kabuki-za (5), Nihon Seinekan (6), Hibiya Public Hall (7), Nippon Gekijo (8), Gunjin Kaikan (9), Concertgebouw Amsterdam (10), Symphony Hall Boston (11), Musikverein Vienna (12), Liverpool Philharmonic Hall (13), Salle Pleyel Paris (14).

4.4. Conclusions

The method applied of defining ranges of possible absorption coefficients and sampling these ranges has proven to be a suitable approach for the sample of rooms tested. The uncertainties concerning the frequency dependent room average reverberation times are larger for the unoccupied cases and they are larger for smaller rooms, but the confidence intervals CI %95 are smaller than ± 0.1 for the unoccupied rooms and smaller than ± 0.05 for the occupied rooms. For larger rooms and for the occupied states, the level of uncertainty reaches the range of the JND specified in ISO 3382 of rel. 5%. In any case these uncertainties concerning the reverberation times appear small enough to allow a historical evaluation of the rooms.

While descriptions of the room materials could be found for most rooms, the location and size of these materials is not specified in most sources. Instead, the information in the architectural journals cited is usually a kind of inventory of which materials were used in the room. This circumstance will affect the accuracy of the listener-dependent room acoustic parameters, where the location of the different materials is certainly more decisive than for the reverberation times averaged over the room.

Looking at the room acoustic parameters per listener for each room above, it can be inferred that these parameters should not be averaged over the whole room. Considerable differences can be observed, between lateral listener positions and listener positions along the centre axis of the rooms for the lateral fraction parameter. For the other three parameters differences can be observed depending on the distance to the sound source.

In the previous chapter it was stated that the rooms can be divided into two groups with regard to their room size and shape, separated by the Kantō earthquake. The room acoustic parameters obtained in this chapter support this theory. Although no change towards longer reverberation times can be observed, even if the volumes of the rooms built after 1923 increase significantly, differences can be observed when looking at the G and J_{LF} values. The rooms before 1923 show G values in the range from 8 to 13 dB while the rooms built after 1923 show G values between 3 and 8 dB. The rooms built before 1923 feature large values of J_{LF} between 0.20 and 0.30 while the rooms built after 1923 show values in the range of 0.15 and 0.2. An exception is the Nihon Seinenkan. It features the highest G values, the highest lateral fraction values and the lowest C_{80} values from the rooms built after 1923. As already described in the previous chapter, the acoustics of the Nihon Seinenkan were considered suitable for music by contemporary observers (see Section 3.2.2). The parameters presented in this chapter confirm this impression.

Chapter 5.

Three eras of performance venues in Tokyo

In Chapter 1, the cultural history of Tokyo was outlined and the introduction of Western music in Japan in the second half of the 19th century was summarized based on the existing literature. The following Chapter 2 introduced a database, which provided the empirical foundation for identifying the venues, that were used for symphonic concerts and gave an overview of the emergence of the symphonic concert life in Tokyo. In Chapter 3 the rooms identified as symphonic concert venues and their building history were described in detail and in Chapter 4 the acoustic properties of these rooms were examined.

The aim of this concluding chapter is to place the above findings in a broader intercultural context to highlight the particularities of Tokyo during the period under investigation, and to point out the reasons for these particularities. An investigation of building history is likely to encompass a larger amount of time than the investigation of individuals or institutions, which are usually the focus of musicological studies, and is therefore suited to investigate a larger scope of historical developments. By looking at the buildings used for symphonic concerts, one can identify three major periods of the public concert life in Tokyo.

5.1. Early concerts in buildings of Western architecture, 1868–1923

A first period can be identified for the years between 1868 and 1923. As has been illustrated in Chapter 3, buildings that have been erected in this period were not primarily built with a musical use in mind. These structures were representative buildings which were components of the plan to transform Tokyo into a modern city at the end of the nineteenth century. The rooms built as well as the music played in this period were part of this project. These buildings contained ballrooms, banquet halls or lecture rooms, which presented a suitable background for the staging of concerts of Western music, including the first attempts of performances of orchestral music. Concerts of Western music in these venues presented a suitable asset to convey the image of a civilized city more and more equal to cities in Europe. In the nineteenth century, the auditorium of the Tokyo Academy of Music was the

only venue built primarily for a musical use. All rooms in this period had similar dimensions, a rectangular floor plan of approximately 300 to 400 m² and a capacity for 500 to 800 listeners. These dimensions give a good impression of the demand for this kind of entertainment in Tokyo at the end of the nineteenth century. This situation changed only gradually during the first two decades of the twentieth century. The erection of the Yurakuza and Imperial Theatre, two theatres largely influenced by European royal opera houses like the Opera Garnier, were planned under the influence of the idea of catching up with Western concepts of the late nineteenth century. At the end of this period, we find a small development towards more modern approaches. The Nanki Auditorium, which can be considered the first purpose-built concert hall to be financed by a private donor rather than the government, was equipped with modern absorption materials, while the floor plan itself was reminiscent of nineteenth century European concert halls.

In Europe, the emergence of a public concert life with professional musicians, independent from the environments of court societies, and the associated commercialisation of this concert life, first in England in the late eighteenth century and then on the continent from the second half of the nineteenth century, led to the establishment of concert halls in all cultural centres in Europe starting from the middle of the eighteenth century. From around 1870, these became dedicated buildings in exposed locations in these cities and around the turn of the century, new concert halls with seating capacities for more than 2,000 people with room volumes between 10,000 and 20,000 m³ and reverberation times of 1.5 to 2.2 s were increasingly being built (see Figure 5.1). As can be seen from these numbers, a standardisation was taking place during this period, which also manifested itself in building codes within these halls and it is therefore reasonable to describe these buildings as “classical concert halls” (cf. Glogau 1989, 147). Many of these concert halls are used until today and define a global understanding of suitable acoustics for symphonic music.

Chapter 2 has shown that this development obviously came too early for the concert life in Tokyo at the time. At the end of the nineteenth century and even in the first two decades of the twentieth century, a concert life of symphonic music in Tokyo was still developing and professional orchestras with a certain size and standard of playing that could establish permanent concert series in front of a regularly committed audience did not establish until the 1920s, and as a consequence, there was not yet a demand for the construction of a concert hall of the dimensions specified above. The reason to discuss this historical development in Europe here, is the fact that numerous buildings of similar dimensions and characteristics can be found

in Tokyo today. The question arises therefore, when the adaptation to this standard took place.

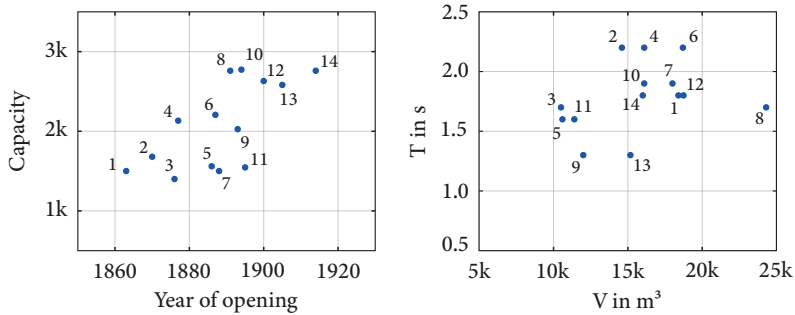


Figure 5.1 Examples of concert halls built in the second half of the nineteenth century. Boston, (Old) Music Hall (1), Vienna, Großer Musikvereinsaal (2), London, Royal Albert Hall (3), Basel, Stadt-Casino (4), Glasgow, St. Andrew's Hall (5), Leipzig, Neues Gewandhaus (6), Amsterdam, Concertgebouw (7), Berlin, (Old) Philharmonie (8), New York, Carnegie Hall (9), London, Queens, Hall (10), Toronto, Massey Hall (11), Zürich, Großer Tonhallsaal (12), Boston, Symphony Hall (13), Chicago, Orchestra Hall (14), Edinburgh, Usher Hall (15).

5.2. The long success-story of the public hall in Tokyo, 1923–1982

A second major period began after the Kanto earthquake, had its peak time after the second world war and lasted until the 1980s. The Great Kantō earthquake of 1923 was a significant turning point for the history of the concert life and the performance venues in Tokyo, and a number of factors coincided that allowed the concert life to fully establish itself.

First, the emergence of the mass media had a positive effect on the dissemination of Western music and thus on the demand to listen to such music in concerts. Record production in Japan had already started in the first decade of the twentieth century, but it was not until the late 1920s that a significant market emerged. Radio broadcasts started in 1925 and listening to classical music on the radio stimulated the desire to purchase the music heard on records. Record sales increased and Japan eventually became the largest market for western classical music worldwide by the end of the 1930s.

Second, there were personalities like Hidemaro Konoe and Yamada Kosaku, who pushed the establishment of a symphony orchestra. Yamada had

made appearances in the Carnegie Hall in New York at the end of 1918 and beginning of 1919 with mostly his own compositions. Konoe had returned to Tokyo in 1924 from studying abroad in Paris and Berlin. Before his return he had conducted the *Berliner Philharmoniker*, among other orchestras. After their experiences abroad both felt ready for the task of installing a symphony orchestra in Tokyo. Given his aristocratic family background, Konoe also was equipped with the social contacts to ensure the financing of the orchestra.

With the Russian-Japanese friendship concerts, a visiting orchestra made up of professional musicians could be heard for the first time in Tokyo, which for many concert visitors this must have been a groundbreaking experience and additional motivation for the musicians. Some of the Russian guests, such as Prague-born Joseph König (1875–1932), became important members of the emerging orchestras.

Finally, the capital was not simply rebuilt after the earthquake, but a drastic reorientation was set in motion. The observations concerning the seismicological vulnerability of the buildings erected between 1868 and 1923 led to an almost complete abandonment of brick construction. Reinforced concrete in particular was the most commonly used material thereafter, and allowed the erection of a number of new “modern auditoria”. The availability of these new halls, especially the Nihon Seinenkan and the Hibiya Public Hall can be seen as a decisive factor that allowed concert life in Tokyo to really establish itself after 1923. The Kantō earthquake propelled Tokyo into the modern age, and while other major cities also witnessed change during this period, this change was particularly drastic in Tokyo because it wiped away the buildings that had been erected in an attempt to catch up with European concepts of architecture, as well as the remains from the feudal age, in an instance.

During the planning process for the rebuilding of Tokyo, scientific developments in the United States had a great influence on Japanese architects and engineers. In the early twentieth century, the development of acoustics as a scientific discipline was pursued with great enthusiasm especially in the United States, following the achievements of Wallace Clement Sabine (see Chapter 4.1), and a growing community of acousticians emerged including researchers such as Floyd Rowe Watson (1872–1974), Vern Oliver Knudsen (1893–1974) or Hugh Tallant (1870–1952).

Articles from these authors appeared as Japanese translations or they were cited in own publications in the *Journal of Architecture and Building Science*, which had started publishing in January 1887.³⁹⁷ The Architectural Institute of Japan had been established in the year before. Floyd Rowe Watson (1872–1974) and Vern Oliver Knudsen (1893–1974) were founding

³⁹⁷ e.g. translations of articles by Sabine, Watson and Bagnal were featured in volume 44, see (Ōoka et al. 1936, 72)

members of the Acoustic Society of America, which was founded in 1928 and held its first meeting in 1929. Both devoted themselves the problem of suitable reverberation times for auditoria, which was one of the new topics resulting from Sabine's findings.

As a result of the research of these authors, reverberation was more and more portrayed as a defect and a trend towards shorter reverberation times developed. In his book from the year 1923, Watson specified a reverberation time of just over 3 s desirable for a one-third occupied auditorium of a size of 1,000,000 cubic feet (approximately 28,317 m³) (Watson 1923, 32). Some years later, he arrived at the conclusion, that "the reception of sound appears most satisfactory under conditions resembling outdoors" (Watson 1928). At the same time, a new field of business developed for the fabrication of sound-absorbing materials and in 1926 a first standard was published by the Bureau of Standards, specifying ranges of "acceptable limits of reverberation times" depending on room volume and occupancy (United States Bureau of Standards 1926, 4).

All these developments led to a new type of modern auditoria being proposed. Apart from the increasing use of absorption materials to achieve the desired reverberation times, a new form of ceiling and wall design was proposed with the aim of directing as much direct sound as possible to the audience area. These auditoria had an elliptical or fan-shaped floor plan and the ceiling was sloped outwards towards the rear of the halls. One or two balconies could be found at the rear end of the auditoria. While the stage areas were made of reflective materials, the audience areas were equipped with absorbing materials (Thompson 2004, 248).

An early example, frequently mentioned in the publications by Satō Takeo, was the Hill Memorial Auditorium at the University of Michigan. The challenge in the design of this hall, opened in 1913, was to provide sufficient speech intelligibility in a room accommodating 5,000 people. This was to be achieved by a parabolic shape, applied in floor plan and section. The reverberation time in this hall was "adjusted to a calculated reverberation time of 1.7 s when all seats were filled" (Tallant 1913).

The majority of the rooms built in the USA between 1925 and 1940 followed the principles described above (Forsyth 1985, 259), and also in Europe this approach was applied as a suitable solution to the problem of achieving good speech intelligibility for all listeners in increasingly large auditoriums, but also for concert halls. A design, which Satō mentioned in some of his publications, is Le Corbusiers (1887–1965) ultimately unrealized proposition for the auditorium of the League of Nations which he submitted together with French acoustician and director of the Pleyel musical instruments company Gustave Lyon (1827–1936). The design applied

the parabolic shape described above in the longitudinal section to provide speech intelligibility in a large auditorium with an capacity of 2,600 seats (Osswald 1927, 64). Lyon eventually succeeded in realizing a hall with this parabolic shape in the longitudinal section with the design of the Salle Pleyel, a concert hall for music performances opened in 1927 in Paris.

In retrospect, these rooms are classified as acoustically undesirable, especially for music performances, and in the long did not prevail. The acoustic conditions of the Salle Pleyel (before the major renovation which took place between 2002 and 2006) were described as a hall which “yields a brittle sound, lacks diffusion, and has no sense of envelopment” (Izenour 1977, 99). These type of halls in general were categorized as an “ellipsoidal interlude” and it was concluded that in this period “acoustic design had taken a serious step backwards” (Michael Barron 2010, 95). Other authors pointed out, that in the best case these type of halls, such as the Philharmonic Hall in Liverpool, achieved an “attractive ‘hi-fi’ intimacy with good definition” (Forsyth 1985, 263).

The research activities that led to the creation of this new type of auditorium in the United States and Europe were closely observed by the architects and engineers active at the time in Japan. The Takarazuka Theatre, opened in 1922 near Osaka, was the first venue to apply a similar parabolic ceiling shape in Japan and it was then studied by Satō and applied for the design of the Ōkuma Memorial Hall of the Waseda University and eventually for the Hibiya Public hall. In a paper describing the planning of the Ōkuma Auditorium³⁹⁸ Satō outlined his principles for planning good acoustics in auditoriums. He identified the equal distribution of sound intensity (1), suitable reverberation times (2) and noise control (3) as the three relevant aspects to achieve good acoustics. Concerning the first point, he cited the above mentioned halls, and agreed with the opinion that the parabolic room shape was a suitable solution for the problem of equal distribution of direct sound. Regarding the second point, he took the position that, in principle, longer reverberation times were advisable for music, whereas shorter reverberation times were more appropriate for speech. Nevertheless, he criticised Watson’s suggestion of optimal reverberation times for music, as he felt that different styles of music would also require different reverberation times. Finally, he considered shorter reverberation times to be the safest compromise in multi-purpose rooms used for music and speech (Satō 1929). The rooms that were eventually built in Tokyo after the Kantō earthquake all displayed the parabolic ceiling shape and in most cases also featured a similar shaped floor plan. This is true both for the multi-purpose halls that were built in the 1920s such as the Nihon Seinenkan, Hibiya Public Hall and Gunjin Kaikan, as well as for the new theatre buildings that were built in the 1930s, which

³⁹⁸ 大隈講堂
Ōkuma kōdō

also used this layout.³⁹⁹ Satō's designs of the Ōkuma Auditorium and the Hibiya Public Hall had a great impact on this development.

No purpose built concert halls were constructed in this period. After the opening of the Hibiya Public Hall, and after the New Symphony Orchestra had begun to hold symphonic concerts at this venue regularly, Satō Takeo strongly objected to the use of the Hibiya Public Hall for concerts (see Section 3.2.4). In addition, there were some comments from conductors such as Konoe Hidemaro (see Appendix E.6) and Joseph Rosenstock (see Appendix E.8) who expressed dissatisfaction with the listening conditions for the musicians on stage. However, this did not change the fact that symphonic concerts took place in these rooms with great frequency and regularity. The auditoria built in the 1920s and 1930s in Tokyo were typical examples of a trend that had established itself worldwide in these years, most strongly in the United States. The time was marked by the rise of the mass media and a new modern lifestyle, which was particularly pronounced in Tokyo due to the "clean slate" brought to Tokyo by the Kantō earthquake. What is noteworthy, however, is the fact that this type of auditorium, which has not prevailed in the history of the development of the concert hall, would become the de facto standard in Tokyo in the coming years, and symphonic concerts would take place predominantly in these halls until the situation slowly changed from the 1960s onwards.

While the construction of these buildings is typical of the period in which they were built and influenced by the cultural and technical developments of the time, the fact that these rooms at least until the 1960s essentially became the standard for performances of symphonic music may also be founded in the cultural history of the performance rooms in Japan. During this time, some authors (cf. Bagenal 1952, 11) claim that the music of a cultural group is decisively influenced by the acoustic spaces in which it is created. In Tokyo, a local building tradition had been established in the pre-modern time. The playhouses that had developed during the Edo period, where characterized by small ceiling heights and volumes below 5,000 m³. The buildings were mostly made of wood, and had a single balcony. The audience would sit tightly together, not on chairs but on grass mats laid out on the floor and covered with seating cushions. The rooms featured reverberation times below one second when fully occupied. Performance spaces with short reverberation times were therefore the familiar acoustic environments for the audiences in Tokyo, given the historical development outlined above.

As Chapter 2 demonstrated, public halls were most frequently used for orchestral concerts between 1923 and 1945, but the many new modern theatres that were built in the early 1930s such as the Tokyo Takarazuka Theatre, the Tokyo Gekijō, the Nippon Gekijō, and the Yūroku-za were also

³⁹⁹ for a description of these buildings see Chapter 3, for their room acoustic parameters, Chapter 4

used, if to a lesser degree. These theatres were reinforced concrete structures, and essentially followed the same design as the public halls described above. This large number of theatre buildings were built due to the efforts of Kobayashi Ichizō, president of the Takarazuka and later Tōhō group, and sparked by his rivalry with the Shōchiku president Ōtani Takejirō. The fact that five large modern theatres were built in the time between 1923 and 1945, but no concert hall shows, that at this point in time, Tokyo was very much a city whose cultural life was dominated by drama while it can be argued that the cultural landscape became dominated by symphonic music in the 1980s and 1990s.

While the end of the Second World War and the subsequent occupation of Tokyo marked a clear historical turning point, which had far-reaching consequences for the population of Tokyo and therefore on the symphonic concert life, the development of the performance venues outlined here does not end in 1945. Even though the main period of investigation of this study ends in 1945 and concert venues erected in the following years have not been examined with the same level of detail, an overview of the post-war years will be provided below in order to trace the end of this development.

After 1945, and especially in the mid-1960s, a boom in public construction took place in Japan, and public halls similar to the Hibiya Public Hall were constructed all over the country, by prefectures, cities and towns, and became a nationwide phenomenon. Yokoyama Fugaku, the structural engineer for the Setagaya Public Hall⁴⁰⁰ described the mood during this period by noting that “even if we do not always achieve completely satisfactory results, we are not standing still” (Yokoyama 1959, 6). Sato published a book with the title “Public Hall Architecture”⁴⁰¹ (Satō 1966), in which he compiled about 50 public halls, which were built until 1966. Although used not only for symphonic concerts, but also for public speeches, drama and other types of entertainment, these venues were the most wide-spread performance venue in the first period after the world war.

While the public hall, as described above, continued to be the pivotal performance venue, a discussion on the suitability of these public spaces for symphonic concerts gradually unfolded. In an article from 1956, concerning the acoustics of the Hibiya Public Hall, it was noted, that “while plush new moving picture palaces were being constructed one after another, serious artists had to bear with the Hibiya Public Hall with its inferior acoustics.”⁴⁰²

In the acoustic community, a hall that is remembered as a landmark of acoustic design is the old NHK Hall in Uchisaiwaichō.⁴⁰³ The hall featured a mid-frequency occupied reverberation time of about 1.5 s with a volume of 8,700 m³, a reverberation time which has to be regarded long by the stan-

⁴⁰⁰ 世田谷区民会館
Setagaya
kumin kaikan

⁴⁰¹ 公会堂建築
Kōkaidō kenchiku

⁴⁰² *The Japan Times*,
June 17, 1956, 8

⁴⁰³ 内幸町

dards of the time in Tokyo. The designers of the hall included Nagata Minoru⁴⁰⁴, who later established the consulting firm Nagata Acoustics. The opening of the Tokyo Bunka Kaikan⁴⁰⁵, with a capacity of 2,327, a volume of 17,300 m³, and a reverberation time of 1.5 s occupied was celebrated on April 7, 1961, and was the next step in this development. During this time, the perception of the halls available in Tokyo gradually began to change. Scholars like Nagata, who travelled to Europe and had the opportunity to listen to performances in the most prestigious halls, contributed a great deal to this development.

The transition which was taking place at that time can best be described in the words of Nagata Minoru:

Hibiya Kokaido was Tokyo's classical concert venue until the opening of Tokyo Bunka Kaikan. Relative to Hibiya Kokaido's sound, Tokyo Bunka Kaikan's comparatively rich acoustics came as a refreshing surprise to Tokyo's classical music fans, including me. However, when I returned to Japan after my studies in Germany and listened to performances at Bunka Kaikan again, I now missed the brilliant acoustics I had experienced flowing from the whole stage of the Vienna Musikverein. The difference impacted me greatly. (Nagata 2001)⁴⁰⁶

Nagata was responsible for the design of a number of concert halls in the 1990s and was therefore a main contributor for the proliferation of rooms with longer reverberation times.

Concerning the Tokyo Bunka Kaikan, he also wrote, that "if we compare the acoustical design approach for the nearly contemporaneous Tokyo Bunka Kaikan and Berlin Philharmonic Hall, our differences can be traced to the Japanese lack of first-hand exposure to true concert hall sound" (Nagata 2001). An important prerequisite for reducing the discrepancy described by Nagata was a significant increase in the number of foreign travellers from the 1980s onwards. In the years after the Second World War, the Japanese population was initially not allowed to travel abroad. After the 1964 Olympic Games in Tokyo, this ban was lifted. As a result, the number of travels abroad slowly increased and finally rose particularly drastic in the 1980s, from 5.5 million in 1986 to over 10 million in 1990 (Funck et al. 2013, 140–141). In 1972, work on a new NHK Hall was initiated, and the hall was opened in 1973. It exists until today and is used for symphonic concert, but also for popular music and large scale television events, such as the new years eve singing competition known as *kōhaku*⁴⁰⁷. The new NHK Hall, has a capacity of 3,677 seats, a volume of 25,200 m³, and a reverberation time

404 永田穂

405 東京文化会館
Tōkyō bunka kaikan

406 accessed April 18, 2022, <https://www.nagata.co.jp/news/news0101-e.htm>

407 NHK 紅白歌合戦 *NHK kōhaku uta gassen*

fully occupied of approximately 1.7 s. The hall was however, around the time of its opening mostly used for broadcasting purposes and the Hibiya Public Hall continued to be the most frequently used hall for public performances of symphonic music. Even in the 1980s, a large scale concert hall with the sole purpose of symphonic concerts was still missing, but discussions about the necessity to build such a hall was increasing. Conductor and professor emeritus Ōmachi Yōichirō (1931–)⁴⁰⁸ can be quoted saying: “In a discussion at the acoustics society conference I asked why no one in Japan is trying to build a high-level music hall. A hall designer answered, that he would only get requests for multi-purpose halls.” (Mikami 1983, 3–4)⁴⁰⁹

⁴⁰⁸ 大町陽一郎
⁴⁰⁹ 音響学会のパネル
 ディスカッションで、
 なぜ最高の音楽ホール
 をつくらないのか、と
 たずねた。すると、ホ
 ールの設計家は「多目
 的ホールの注文ばかり
 くるから」とこたえた。

5.3. Adaptation of the worldwide standard, 1982–present

Examining this development on a national scale, the end point of this second phase and the starting point of the third and final phase of the symphonic concert life is the opening of the Osaka Symphony Hall in 1982. Quoting Beranek, “the Osaka Symphony Hall, which opened in 1982 on the occasion of the 30th anniversary of the Asahi Broadcasting Corporation, was the first concert-only hall built in Japan” (Beranek 1996, 343). The hall features a mid-frequency reverberation time of approximately 1.9 s occupied, with a capacity of 1,702 seats and a volume of 17,800 m³. While this hall was essentially a slightly morphed shoebox hall, in Tokyo, the development outlined here ends with the completion of the Suntory Hall, which was built on the occasion of the 60th anniversary of the Suntory company and opened in 1986. The Suntory Hall also was the hall that introduced the vineyard configuration to Japan, a hall type introduced by Hans Scharoun (1893–1972) with the design of the Berlin Philharmonic concert hall. The Suntory Hall has an occupied reverberation time of 2.0 s with a volume of 21,000 m³. Figure 5.3 illustrates the development described above and shows the halls mentioned and their occupied reverberation times at the time of the opening, clearly indicating the slow shift from the public halls with reverberation times around 1 s in the 1920s to concert halls with a reverberation time around 2 s in the 1980s.

On a national scale, the peak time of this development took place around the year 1997. The Harmony Hall in Fukui, the Sapporo Concert Hall, the Sumida Thriphony Hall in Tokyo and the Takemitsu Memorial Hall in Tokyo all opened in 1997 and featured a volume between 15,000 and 30,000 and a capacity between 1,500 and 2,000 seats, but all of them had a reverberation time of approximately 2 s occupied. For the first time, Japanese overseas travel exceeded 10 million in 1990 and over 16 million in 1996. How many of these travellers actually attended concerts is beyond measure,

but these figures illustrate that the changing demands on concert halls in Tokyo are also related to the fact that more and more people were getting to know these type of concerts in its authentic cultural setting.

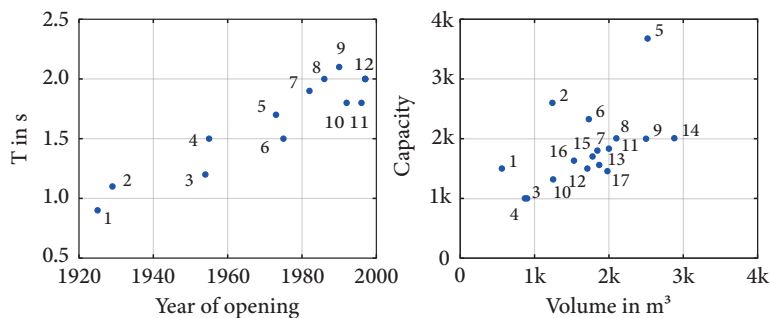


Figure 5.2 Performance venues in Tokyo between 1920 and 2000. Nihon Seinenkan (1), Hibiya Public Hall (2), Kanagawa Prefectural Hall (3), Old NHK Hall (4), New NHK Hall (5), Tokyo Bunka Kaikan (6), Osaka Symphony Hall (7), Tokyo Suntory Hall (8), Tokyo Metropolitan Art Space (9), Katsushika Symphony Hills (10), Tokyo International Forum (11), Sumida Triphony Hall (12)).

The results presented in this study suggest that the adaptation of music practice is adapted faster than the particular listening practices and environments associated with a musical culture. The case presented here of the adaptation of a symphonic concert life in Tokyo, from a situation of essentially no practice of Western music in 1868 to a city with one of the largest number of concert halls for symphonic music worldwide in the 1990s is a unique case study in this regard. In Tokyo, a considerable level of music practice was established by 1945, it was not until the increased travel to Europe and the United States and the “first-hand exposure to true concert hall sound,” as Nagata Minoru has put it, that a sensibility for such venues developed.

Appendix A.

Dimensional quantities

Volume V Volume of the interior of the halls without the volume of the stage house. The volume is cut off at the intersection where an orchestra enclosure was shown in the drawings.

Capacity N Seating capacity of the rooms as indicated in the literature. All venues except the Kanda YMCA and the Auditorium of the Academy of Music had fixed seats. For these two halls, the values given represent the average of all the values found in the literature.

V/N Volume divided by seating capacity. This value is used in room acoustic planning to define the appropriate volume for a particular usage scenario. For multi-purpose halls for speech and music, values between 4 and 7 are appropriate, for halls for symphonic music values between 8 and 12.

Total Surface area S_T Total surface area obtained from geometric models. The sides of the extruded audience boxes are not included in this value.

Audience area S_A Area occupied by the audience in the model, not including the sides of the audience boxes.

No of Faces F Number of faces in the model not including the sides of the extruded audience boxes.

Critical distance d_c The radius around the sound source where the direct and reverberant sound levels are equal. The critical distance can be approximated using figure A.1.

$$d_c \approx 0.057 \sqrt{\frac{\gamma V}{T}} \quad (\text{A.1})$$

Length L The maximum length found in the geometric model. In halls with a stage house, the distance to the back of the orchestra enclosure was measured.

Width W The maximum width found in the geometric model. In the floor plan drawings, this would be defined by the width of the stage house, but only the width of the orchestra enclosure is taken into account.

Height H The maximum height found in the geometric model. The lowest point is most times the orchestra pit if present.

Appendix B.

Equations for objective measures

The reverberation time T is determined by evaluating the slope of the integrated impulse response curves in the range from -5 dB to -35 dB which is then extrapolated to a range of -60 dB and indexed T_{30} . The early decay time EDT is derived from evaluating the initial 10 dB of the slope of the integrated impulse response curves. The EDT is said to better represent perceived reverberance.

The sound strength G according to ISO 3382-1 (2009, 13) is defined as “the logarithmic ratio of the sound energy (squared and integrated sound pressure) of the measured impulse response to that of the response measured in a free field at a distance of 10 m from the sound source,” as expressed in the following equation :

$$G = 10 \lg \left(\frac{\int_0^{\infty} p^2(t) dt}{\int_0^{\infty} p_{10}^2(t) dt} \right) \text{ in dB,} \quad (\text{B.1})$$

where:

$p(t)$ = sound pressure at the receiver position

$p_{10}(t)$ = sound pressure at a distance of 10 m free field conditions

The clarity C_{80} is defined as the ratio of the sound energy (squared and integrated sound pressure) in the first 80 ms to the sound energy after this time limit:

$$C_{80} = 10 \lg \left(\frac{\int_0^{0.080} p^2(t) dt}{\int_{0.080}^{\infty} p^2(t) dt} \right) \text{ in dB.} \quad (\text{B.2})$$

where:

$p(t)$ = sound pressure at the receiver position

The early lateral energy fraction J_{LF} , is defined as the sound energy arriving from lateral directions within the first 80 ms obtained using a figure-of-eight pattern microphone to the sound energy obtained from all directions using an omnidirectional pattern microphone:

$$J_{LF} = \frac{\int_0^{0.080} p_L^2(t) dt}{\int_0^{0.080} p^2(t) dt}, \quad (\text{B.3})$$

where:

$p(t)$ = sound pressure at the receiver position

$p_{10}(t)$ = sound pressure at a distance of 10 m free field conditions

The zero direction of the figure-of-eight pattern microphone should be oriented to a center source position on the stage.

B.1. Simulation settings in RAVEN

Climate settings Temperature, air pressure and humidity have an influence on the speed of sound and airborne sound attenuation. The normal temperature of 20°, an average air humidity of 50% and the normal pressure at sea level of 1013hPa were selected:

```
rpf.setTemperature(temp);
temp = 20[°]
rpf.setHumidity(humidity);
humidity = 50[% ]
rpf.setPressure(pressure);
pressure = 101300[Pa]
```

Image source method settings The early reflections were calculated using the image source method, which is switched on with the `simTypeIS` switch. `ISOrder_PS` specifies the order of image sources, and was set

to the value 3.

```
rpf.setSimulationTypeIS(simTypeIS);
simTypeIS = 1
rpf.setISOrder_PS(ISOrder_PS);
ISOrder_PS = 3
```

Ray tracing options The ray tracing method is used for the simulation of the diffuse sound in RAVEN. It is switched on with the `simTypeRT` parameter. The temporal resolution can be defined with the parameter `TimeSlotLength` in ms and the radius of the detector sphere with the parameter `radiusDetector`. The maximum energyLoss from which the particles are no longer tracked is set to a value of 60 dB.

```
rpf.setSimulationTypeRT(simTypeRT);
simTypeRT = 1
rpf.setTimeSlotLength(TimeSlotLength);
TimeSlotLength = 1
rpf.setRadiusDetectionSphere(radiusDetector);
radiusDetector = 0,5
rpf.setEnergyLoss(energyLoss);
energyLoss = 60
```

Number of particles The number of rays or particles required for was calculated individually for each model. RAVEN provides the function for this purpose called `rpf.calcNumberOfParticles`, which calculates the required number of particles according to the following equation B.4:

$$N = \frac{V}{\frac{\sigma_{ETC}^2}{4.34} \cdot \pi \cdot r_d^2 \cdot c \cdot \frac{\Delta t}{1000}} \quad (\text{B.4})$$

where:

- σ_{ETC} = standard deviation, set to 1dB
- r_d = radius of detection sphere, set to 0.5 m
- c = speed of sound, set to 340 m/s
- V = room volume in m^3
- Δt = temporal resolution, set to 1 ms

Filter settings The filter resolution in the frequency domain for the simulations in RAVEN is set to one-third octave resolution using the `filterRes` parameter. The `filterLength` value should be greater than the expected reverberation time. The filter length is calculated for each room as two times the estimated reverberation time.

```
rpf.setFilterResolution(filterRes);  
filterRes = '3rd'  
rpf.setFilterLength(filterLength);  
filterLength = 2 ·  $T_{30}$ 
```


Appendix C.

Absorption properties

Table C.1 Minimum, maximum and mean of the absorption values used in the simulations in this study.

Type	Center frequency f in Hz					
	125	250	500	1k	2k	4k
chairs wood unocc min	0.02	0.02	0.03	0.04	0.05	0.05
chairs wood unocc max	0.15	0.20	0.25	0.25	0.25	0.25
chairs wood unocc mean	0.09	0.11	0.14	0.15	0.15	0.15
chairs wood occ min	0.10	0.15	0.25	0.30	0.35	0.40
chairs wood occ max	0.20	0.35	0.65	0.75	0.80	0.80
chairs wood occ mean	0.15	0.25	0.45	0.53	0.58	0.60
chairs uph light unocc min	0.15	0.25	0.35	0.50	0.60	0.60
chairs uph light unocc max	0.35	0.55	0.65	0.75	0.85	0.85
chairs uph light unocc mean	0.25	0.40	0.50	0.63	0.73	0.73
chairs uph heavy unocc min	0.30	0.37	0.56	0.60	0.60	0.60
chairs uph heavy unocc max	0.60	0.75	0.85	0.93	0.95	0.95
chairs uph heavy unocc mean	0.45	0.56	0.71	0.76	0.78	0.78
chairs uph light occ min	0.24	0.33	0.50	0.60	0.70	0.70
chairs uph light occ max	0.51	0.64	0.75	0.85	0.90	0.90
chairs uph light occ mean	0.38	0.49	0.63	0.73	0.80	0.80
chairs uph heavy occ min	0.40	0.55	0.70	0.75	0.75	0.75
chairs uph heavy occ max	0.70	0.85	0.95	1.00	1.00	1.00
chairs uph heavy occ mean	0.55	0.70	0.83	0.88	0.88	0.88
floor min	0.02	0.02	0.02	0.02	0.02	0.02
floor max	0.14	0.11	0.10	0.10	0.10	0.10
floor mean	0.08	0.07	0.06	0.06	0.06	0.06
floor carpet min	0.02	0.03	0.06	0.13	0.25	0.35
floor carpet max	0.05	0.08	0.20	0.37	0.60	0.80
floor carpet mean	0.04	0.05	0.12	0.26	0.43	0.57

Type	Center frequency f in Hz					
	125	250	500	1k	2k	4k
rest solid min	0.09	0.07	0.05	0.04	0.04	0.04
rest solid max	0.28	0.22	0.17	0.10	0.10	0.11
rest solid mean	0.17	0.13	0.10	0.08	0.07	0.07
rest porous min	0.15	0.46	0.70	0.82	0.80	0.70
rest porous max	0.30	0.73	0.91	0.90	0.95	0.95
rest porous mean	0.25	0.63	0.79	0.85	0.88	0.84
rest plate min	0.18	0.12	0.09	0.06	0.04	0.04
rest plate max	0.60	0.30	0.19	0.13	0.09	0.09
rest plate mean	0.29	0.20	0.11	0.09	0.07	0.06
stage opening min	0.95	0.95	0.95	0.95	0.95	0.95
stage opening max	1.00	1.00	1.00	1.00	1.00	1.00
stage opening mean	0.98	0.98	0.98	0.98	0.98	0.98
orchestra min	0.40	0.63	0.75	0.84	0.85	0.85
orchestra max	0.30	0.53	0.65	0.75	0.80	0.80
orchestra mean	0.35	0.58	0.70	0.80	0.83	0.83
rest modern min	0.20	0.15	0.10	0.09	0.08	0.07
rest modern max	0.30	0.31	0.32	0.33	0.34	0.35
rest modern mean	0.25	0.23	0.21	0.21	0.21	0.21
rest hib min	0.20	0.22	0.24	0.26	0.28	0.28
rest hib max	0.30	0.31	0.32	0.33	0.34	0.35
rest hib mean	0.25	0.27	0.28	0.30	0.31	0.32

Appendix D.

Maenos Venues

Table D.1 Results of cross-referencing the list compiled by Maeno with the Japan Times database search results for concert and orchestra.

Name	Kanji	Results
Seiyoken	精養軒	0
Asakusa Honganji Temple	浅草本願寺	0
Enryokan	延遼館	0
n.i.	横浜百七十番館	0
Ueno Ongaku Torishirabejō	上野音楽取調所	0
Rokumeikan	鹿鳴館	0
Ueno Kasoku Kaikan	上野華族会館	0
Tsukiji Kōseikan	築地厚生館	0
Kōkadaigaku	工科大学	0
Tokyo Academy of Music	東京音楽学校	257
Gakushūin	学習院	0
Kōseikan	厚生館	0
Hongo Chūō Kaikan	本郷中央会堂	0
Kanda Y.M.C.A	神田美土代青年会館	14
Shinobioka Gakudō	忍ヶ丘楽堂	0
n.i.	私強楽堂	0
Tokyo Fukyōikukai	東京府教育会	0
Aoyama Gakuin	青山学院	0
Kanda Bashikoshō	神田橋高商	0
Hibiya Bandstand	日比谷野外音楽堂	58
Ryogoku Isehira	両国伊勢平	0
Keio Enzetsukan	慶応演説館	0
Yamanote Kokaido	山手公会堂	0
Tsukiji Metropol Hotel	築地のメトロポールホテル	0
Kirisutokyo Seinenkan	キリスト教青年館	0

Name	Kanji	Results
Imperial Hotel	帝国ホテル	80
Kyūdan sakashita kyōkai	九段坂下教会	0
Ushigome kōtō engeikan	牛込高等演芸館	0
Tsukiji Seiyoken Hotel	築地精養軒ホテル	0
Hochi Auditorium	報知講堂ホール	7
Nihon Seinenkan	日本青年館	330
Takenodai Ongakudo	竹之台音楽堂	0
Yūroku-za	有楽座	13
Imperial Theatre	帝国劇場	11
Meiji University	明治大学	17
Kabuki-za	歌舞伎座	15
Yokohama Sumo Jousetsuba	横浜角力常設場	0
Nihon Ongakukai kodo	日本音楽協会講堂	0
Tsurumi Kagetsu Garden	鶴見花月園	0
Tennoji Park	天王寺公園奏楽堂	0
Todai Kiristokyo Seinenkai	東大キリスト教青年会	0
Akasaka Royal Kann	赤坂ローヤル館	0
Asakusa Nihonkan	浅草日本館	0
Nanki Auditorium	南葵音楽堂	16
Seimei Hoken Kyokai	丸の内保険協会	0
Kogyo Club	工業倶楽部	0
Tameike Sankaido Hall	赤坂溜池三会堂	0
Tsukiji Doshikan	築地同土館	0
Tokyo Gekijō	東京劇場	14
Hibiya Public Hall	日比谷公会堂	1,421
Asahi Auditorium	東京朝日新聞講堂	28
Tsukiji Shōgekjō	築地小劇場	0
Surugadai Joshi Seinenkan	駿河台女子青年館	0
Hoken Kyokai	保険協会	0
Ninju Hall	仁寿講堂	0
Marunouchi Sanshi Kaikan	丸の内蚕糸会館	0
Gunjin Kaikan	軍人会館	26
Marunouchi Denki Club	丸の内電気クラブ	0
Railway Association Hall	鉄道協会ホール	0
Meiji Seimei Hall	明治生命講堂	0
Kyoritsu Auditorium	共立講堂	22

Appendix E.

Transcripts

E.1.

Als vielversprechender Anfang der diesjährigen Concertsaison – man darf schon ruhig von einer solchen in Japan reden – fand am letzten Sonntag in der Uyeno-Musik-Akademie das erste Orchesterconcert mit Chor statt und es war ein Erfolg, sowohl in künstlerischer als auch pekuniärer Beziehung. Gegen 600 Personen waren zugegen, was um so mehr zu verwundern ist, als es zum ersten Mal keine Freibillets gab, und wir sowieso in einer Zeit leben, in der ein Fest das andere jagt.

As a promising beginning of this year's concert season – one may already speak of a concert season in Japan – the first orchestra concert with choir took place last Sunday at the Uyeno Music Academy and it was a success, both in artistic and pecuniary terms. About 600 people were present, which is all the more surprising considering that for the first time there were no free tickets and we live in a time where one event follows another.

Source: *Deutsche Japan Post* 31, November 2, 1905, 9

E.2.

私のホールで演奏する音楽は通俗的なものではなくしたい、通俗的な音楽はいくらも他で聞くことはできるし、それでは立派な音楽はできない、なるべく高級シュミの音楽を極めて熱心な真面目な少数の人に聞いてもらいたいと思う。

I want to make perform music works in my hall, which are not popular. You can hear such popular music everywhere. But then you cannot listen or play splendid music. I would like a few people to listen to the music of a highest quality as much as possible, who are very enthusiastic and earnest.

Source: Kishirō Murakami 村上紀史郎. 2012. *Ongaku no Tonosama, Tokugawa Yorisada: 1500 oku en no nōburesu oburiju* 音楽の殿様・徳川頼貞：1500億円のノーブレス・オブリージュ. Tokyo: Fujiwara shoten

E.3.

今まででも日本は音楽の世界からめぐまれていたが、しかしその来朝者はほとんど独奏者のみであった。ためにピアノなりヴァイオリンなりの個々の楽器についてはその知識が深く会得されるようになったが、西洋音楽の特色である総合的融合的のもの、すなわち管弦楽についてはレコードを通じて聞く以外には何等の方便もなく、それについての知識、理解も貧しきものであったことは事実である。[...] 今度来朝したロシアの楽人は私の予想以上に優秀な人たちぞろいで [...], これらの人々が、その作品の精神をつかんで演奏することなど確かにわが交響楽団の模範となることと思う。

It is true that Japan has so far been a favourable environment for music. However, I have to say that almost all the musicians who came to Japan were soloists. Therefore we had the chance to learn thoroughly how to play any musical instrument, such as the piano or the violin. But on the other hand, we had no opportunity to listen to orchestral music that had an outstanding character of Western music, how comprehensive and integrative, with the exception of records. In fact, we only have a poor understanding and knowledge of such orchestral music [...] Musicians from Russia are much more brilliant than I expected. [...] They can understand and embody the spirit of any musical work. I am sure they could be a good model for our members of the symphony orchestra.

Source: *Yomiuri Shimbun*, April 23, 1925, M.E., 7

E.4.

“Daß ich zur Musik kommen mußte, war eigentlich selbstverständlich”, entgegenete er in einem Deutsch, das aus dem Munde eines Japaners erstaunlich gut formuliert und ziemlich fließend klingt. “In meiner Familie ist die musikalische Tradition seit Jahrtausenden vorhanden. Freilich war diese Art von Musik entgegen ihrem europäischen Charakter streng zeremoniell gebunden. Mein Urgroßvater war ein bakannter Musiker, selbstverständlich aber im al-tjapanischen Sinne. Mein Bruder ist auch musikalisch, er spielt gut Klavier. Er ist natürlich nicht öffentlich aufgetreten, sondern pflegt diese Liebhaberei nur im Familienkreise.”

“That I had to come to music was actually self-evident”, he responded in a German that sounds surprisingly well formulated and rather fluent from the mouth of a Japanese. “My family has had a musical tradition for thousands of years. Admittedly this kind of music was strictly ceremonially when compared to its European counterpart. My great-grandfather was a well-known musician, but of course in the old Japanese sense. My brother is also a mu-

sician, he plays the piano well. Of course he did not appear in public, but cultivates this hobby only in family circles.”

Source: *Leipziger Neuesten Nachrichten*, January 1, 1941, 5
from: Bundesarchiv R 64-IV/81 Nr. 124

E.5.

音楽の演奏にはそれに適した、また講演には講演に適した音響状態を作り出すことが必要であってその形式に対しても万能ということは困難である。例えば日比谷公会堂は講演に向くように設計されているから、ここで音楽を聞けば粗雑に聞こえる。日本青年館は音楽に対していい状態だが、講演に対してはよくない。

It is necessary to create appropriate acoustic conditions. If lectures are to be given, the acoustic conditions for lectures must be created, and if music concerts are to take place, they must be set up for concerts. For example, the Hibiya Public Hall was designed for lectures. That's why music sounds harsh there. On the other hand, Nihon Seinenkan has favourable conditions for music, but not for lectures.

Source: *Yomiuri Shimbun*, November 14, 1935, M.E, 5

E.6.

もう四十年近くも前、わりあい気分よかった神宮外苑の中にできた日本青年会館で、その頃の「新響」の定期演奏会を毎回欠かしたことの無い人たちの中に、今の日比谷公会堂での雰囲気はたえられないといって、姿を見せなくなった人がだいぶありますが、筆者はこの心持ちには、まったく同感できるような気がします。

Almost forty years ago, at the relatively good Nihon Seinenkan, located in the outer gardens of the Meiji Shrine, among the people who had not missed any of the regular concerts of the New Symphony Orchestra, many said that the mood at the current Hibiya Public Hall was no longer the same, and many of them had not appeared there, and the author can completely understand their feelings.

Source: Hidemaro Konoe 近衛秀麿. 1999. *Okesutora wo kiku hito he* オークストラを聞く人へ. Tōkyō: Ongaku no tomosha

E.7.

日本建築学会の要望書東京藝術大学奏楽堂は建築的価値が高く、かつ上野公園の歴史的環境の形成上重要な建築と判断されますので、この建築の現

地での保存についてご配慮下さいますようお願い申し上げます。理由

1. この奏楽堂は山口半六・久米正道の設計により明治二十三年5月に竣工したもので、音楽専用のオーデトリウムとしてわが国最初の建築であります。また音響計画に基づいて設計された音楽堂としても日本最初であり、日本のオーデトリウム史上その発端を飾るにふさわしい名建築として登場しました。
2. 加えてこの奏楽堂が木質系であることが、この建築に単なる歴史的価値以上の価値を与えています。木質系音楽堂は日本で稀有の例であり、コンクリート系音楽堂とは異なる音質が期待できる点で、今やきわめて貴重な存在となりました。

Request of the Architectural Institute of Japan:

The auditorium of the Tokyo National University of Fine Arts and Music has a high building value, and it is also considered an important building with regard to the formation of the historical environment of Ueno Park. Therefore we ask you to consider the preservation of this building on site. The reasons are:

1. This auditorium was completed in May of 1890, according to the design of Yamaguchi Hanroku and Kuru Masamichi. It is the first structure in Japan intended as an auditorium for music, and also the first auditorium, which was designed applying acoustic planning principles. It is a remarkable structure that can be regarded as the origin of the history of the auditorium building in Japan.
2. In addition, the fact that this building is wooden gives this building more than just historical value. A wooden music hall is very rare in Japan. It's existence is extremely precious since it has different characteristics from today's concrete made halls [...]

Source: Tōkyō shinbun shuppan kyoku, ed. 東京新聞出版局. 1987. *Ueno sōgakudō monogatari* 上野奏楽堂物語. Tokyo: Tōkyō shinbun shuppan kyoku

E.8.

私の就任演奏会は1936年9月21日に行われ、順調であった。だが、これはまさに第一歩であり、前途にはなお諸事山積していることが私にはわかっていた。また、舞台上方天井まで筒抜けの音響状態も、音を大部分吸収して聴衆の方へ流さないから気に入らなかった。新響委員たちと検討し、彼

らも賛成してくれたのだが、私の提案は上方を覆う可動式の天蓋を付けたらどうだろうというのだった。新響の同意を得て、この案は直ちに実行に移された。結果は上首尾、日比谷公会堂の音の響きはずっと改善され、[...]

My opening concert took place on September 21, 1936, and it went well. But this was only the first step, and I knew there were still problems ahead. I did not like the acoustic conditions, especially that the sound goes directly to the stage tower, so it is absorbed mostly and the sound does not flow towards the audience. [...] My suggestion was to install a movable reflector that could cover the top. I had consulted with the members of the New Symphony Orchestra committee and they agreed. With their consent this idea was soon implemented. The result was very good. The acoustic conditions of the Hibiya Public Hall were improved.

Source: Joseph Rosenstock ジョセフ・ローゼンストック. 1980. *Rosensu-tokku kaisōroku: Ongaku ha waga inochi* ローゼンストック回想録. Nihon hōsō shuppan kyōkai

List of Figures

2.1.	Program of a concert of the Japan Music Society, Source: <i>Japan Weekly Mail</i> , May 2, 1891, 505	47
2.2.	Program of a concert by the Meiji Music Society, Source: <i>Japan Times</i> , June 20, 1899, 2	48
2.3.	Program of a concert at the Academy of Music, Source: <i>Deutsche Japanpost</i> , May 4, 1907, Beilage zur No. 5, 2	50
2.4.	Program of a concert at the Tokyo Academy of Music, Source: <i>The Japan Times</i> , November 28, 1909, 4	51
2.5.	Program of a concert at the hall of the Academy of Music, Source: <i>The Japan Times</i> , May 28, 1910, 4	52
2.6.	Program of a concert at the Hibiya park bandstand, Source: <i>The Japan Times</i> , May 23, 1909, 6	53
2.7.	Program of a concert at the Imperial Theatre by the Tokyo Philharmonic Society, Source: <i>The Japan Times</i> , November 25, 1913, 4	55
2.8.	Program of a concert at the hall of the Academy of Music, Source: <i>The Japan Times</i> , May 2, 1917, 8	57
2.9.	Program of a concert of the Tokyo Philharmonic Society, Source: <i>The Japan Times</i> , December 1, 1914, 3	59
2.10.	Program for the first concert of the Tokyo Symphony Orchestra, Source: <i>The Japan Times</i> , April 2, 1923, 8	61
2.11.	Program of a concert of the New Symphony Orchestra, Source: <i>The Japan Times & Mail</i> , April 21, 1935, 4	65
2.12.	Program of the 12 th regular concerts of the Chūō Symphony Orchestra, Source: Archives of Modern Japanese Music, No. 1941-05-006.	72
3.1.	Timeline, showing the rooms identified as venues for symphonic concerts in Tokyo in the first half of the period under investigation — the time between 1868 and the Great Kantō earthquake in 1923.	76
3.2.	The building used by the Music Research Institute, photo from 1880, Source: Tokyo University of Arts Library Digital Collection, Ref. No. 81-01-01, accessed April 15, 2022, https://jmapps.ne.jp/geidailib/det.html?data_id=7342	77

- 3.3. Interior view of a room (presumably the large music room) of the Music Research Institute in 1880, Source: Tokyo University of Arts Library Digital Collection, Ref. No. 81-01-02, accessed April 15, 2022, https://jmapps.ne.jp/geidailib/det.html?data_id=7343 77
- 3.4. Façade of the Rokumeikan, Source: Collection of photos from the Meiji and Taisho period of the National Diet Library Japan, accessed April 19, 2022, doi:10.11501/764109 79
- 3.5. Interior of the Rokumeikan. Source: Archive of Meiji and Taisho period Photos, National Diet Library Japan, accessed April 19, 2022, doi:10.11501/764167 79
- 3.6. Façade of the main building of the Tokyo Academy of Music. Source: Tokyo University of Arts Library Digital Collection, Ref. No. 81-05, accessed April 15, 2022, https://jmapps.ne.jp/geidailib/det.html?data_id=7354 81
- 3.7. Interior of the auditorium of the Tokyo Academy of Music. Source: Tokyo University of Arts Library Digital Collection, Ref. No. 81-03-02, accessed April 15, 2022, https://jmapps.ne.jp/geidailib/det.html?data_id=7346 81
- 3.8. Longitudinal section (top) and floor plan (bottom) of the Hall of the Academy of Music. Source: Bunkazai kenzōbutsu hozon gijutsu kyōkai, ed. 文化財建造物保存技術協会. 1987. *Kyū tōkyō ongaku gakkō sōgakudō ichiku shūri kōji hōkokusho* 旧東京音楽学校奏楽堂移築修理報告書. Tōkyō: Taitō-ku. 83
- 3.9. Drawing depicting the history of the gradual enlargement of the stage of the hall of the Academy of Music between 1893 and 1959, Source: Bunkazai kenzōbutsu hozon gijutsu kyōkai, ed. 文化財建造物保存技術協会. 1987. *Kyū tōkyō ongaku gakkō sōgakudō ichiku shūri kōji hōkokusho* 旧東京音楽学校奏楽堂移築修理報告書. Tōkyō: Taitō-ku. 84
- 3.10. Floor plan, comparing the main building of the Tokyo Academy of Music (left), opened in 1890 with the building where the Music Research Institute was accommodated from 1880 (right), Source: Bunkazai kenzōbutsu hozon gijutsu kyōkai, ed. 文化財建造物保存技術協会. 1987. *Kyū tōkyō ongaku gakkō sōgakudō ichiku shūri kōji hōkokusho* 旧東京音楽学校奏楽堂移築修理報告書. Tōkyō: Taitō-ku, and Tokyo University of Arts Library Rare Material Database, Ref. No. 音取文 2, accessed April 15, 2022, https://jmapps.ne.jp/geidailib/det.html?data_id=7721 85

3.11. Façade of the Imperial Hotel, which opened in 1890. Source: The Meiji and Taisho Era in Photographs, National Diet Library of Japan, doi:10.11501/764109, Ref. No. 404-3	87
3.12. Ballroom and dining room of the Imperial Hotel in the year 1906. Source: Tōkyō-Teikoku-Hoteru. 1990. The Imperial: The first 100 years. 1. ed. Tōkyō: Toppan.	87
3.13. Comparison of the floor plan of the Rokumeikan and the Imperial Hotel, Sources: Terunobu Fujimori. 1995. <i>Fukugen rokumeikan nikoraidō dai ichi kokuritsu ginkō: edo tōkyō hakubutsukan jōsetsu tenji tōkyō zōn</i> . Tokyo: Yūshipuran-ningu, Tōkyō-Teikoku-Hoteru. 1990. The Imperial: The first 100 years. 1.ed. Tōkyō: Toppan	88
3.14. Tokyo Young Men's Christian Association building. Source: Photographs of Architecture in Meiji and Taisho Periods 明治大正建築写真聚覧, Architectural Institute of Japan, 1936	90
3.15. Interior of the Tokyo Young Men's Christian Association. Source: Kashiwai En. 1907. Bankoku seinen taikai kōenshū. Tokyo: Nippon kirisutokyō seinenkai dōmei.	90
3.16. Section and floor plan of the Kanda Y.M.C.A. Source: Katō, Yoshiyuki, ed. 河東義之. 1980. Josaia kondoru kenchiku zumenshū 1 ジョサイア・コンドル建築図面集. Tokyo: Chūōkōron bijutsu shuppan.	91
3.17. The bandstand in Hibiya Park, opened in 1905. Source: The Meiji and Taisho Era in Photographs, National Diet Library of Japan, Ref. No. 407-42, accessed April 20, 2022, doi:10.11501/763843	93
3.18. Façade of the Imperial Theatre. Source: The Meiji and Taisho Era in Photographs, National Diet Library of Japan, Ref. No. 333-7, accessed April 20, 2022, doi:10.11501/764167	95
3.19. The interior of the Imperial Theatre, Source: The Meiji and Taisho Era in Photographs, National Diet Library of Japan, Ref. No. 333-7, accessed April 20, 2022, doi:10.11501/764167	95
3.20. Longitudinal section and floor plan of the Imperial Theatre, Source: Waseda daigaku engeki hakubutsukan, ed. 早稲田大学演劇博物館. 2002. Yomigaeru teikoku gekijō ten yomigaeru 帝国劇場展. Tōkyō: Waseda daigaku engeki hakubutsukan.	97
3.21. Façade of the Nanki auditorium, Source: Vories, William Merrill. 1918. "An Architectural Triumph."The OmiMustard-Seed 12 (7).	100

3.22. Interior of the Nanki Auditorium, Source: Vories, William Merrell. 1918. "An Architectural Triumph." <i>The Omi Mustard-Seed</i> 12 (7).	100
3.23. Longitudinal section and floor plan of the Nanki Auditorium. Source: Drawings provided to the author by Serino Tomoyuki, Ichigunsha Vories Architects Ltd. (株式会社一粒社ヴォーリス建築事務所)	102
3.24. Drawing of the Hibiya Park, 1930s, Source: Brochure entitled Hibiya kōen annai (日比谷公園案内), accessed at the Tokyo Institute for Municipal Research (後藤・安田記念東京都市研究所), Reference number: 1114857/OBZ 1240	103
3.25. Drawings of the new bandstand at the Hibiya Park, opened in 1922. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 37, no. 445, July 1923	104
3.26. Bandstand in Hibiya park, opened in 1922. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 37, no. 445, July 1923	105
3.27. Bandstand in Hibiya park, opened in 1922. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 37, no. 445, July 1923	105
3.28. Photographs of Architecture in Meiji and Taisho Periods, Architectural Institute of Japan, 217, accessed June 10, 2019, http://www.aij.or.jp/da1/category.html?categoryId=11020	107
3.29. Source: Tōkyō-Teikoku-Hoteru. 1990. <i>The Imperial: The first 100 years</i> . 1. ed. 127, Tōkyō: Toppan.	107
3.30. Longitudinal section and floor plan of the second Imperial Hotel building, designed by Frank Lloyd Wright, Source: Akashi, Nobumichi 明石信道. 1972. <i>Kyū teikoku hoteru no jisshōteki kenkyū 旧帝国ホテルの実証的研究</i> . Tōkyō: Tōkōdō Shoten.	109
3.31. Timeline, showing the rooms identified as venues for symphonic concerts in Tokyo between the Great Kantō earthquake in 1923 and the end of the Second World War in 1945	110
3.32. Façade of the third version of the Kabuki-za, Source: Shōchiku Ōtani Library, Tokyo	112
3.33. Interior of the Kabuki-za, Source: Shōchiku Ōtani Library, Tokyo	112
3.34. Longitudinal section and floor plan of the Kabuki-za, Source: <i>Journal of the Japanese Architects</i> 39, no. 467, November 1925, 629	114
3.35. Façade of the Nihon Seinenkan. Source: Photographs of Architecture in Meiji and Taisho Periods 明治大正建築写真聚覽, Architectural Institute of Japan, 1936	116
3.36. Interior of the Nihon Seinenkan. Source: Original postcard from the collection of the author, no copyright specified	116

3.37. Ground floor and first floor plan of the Nihon Seinenkan, Source: Kimura, Eijirō 木村榮二郎. 1925. “Nihon Seinenkan no kōji” 日本青年館の工事. <i>Doboku kenchiku kōji gahō</i> 1 (9): 3–15.	117
3.38. Interior of the auditorium of the Tokyo Asahi Newspaper build- ing. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 41, no. 496, May 1927	119
3.39. Floor plan of the auditorium of the Tokyo Asahi Newspaper building. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 41, no. 496, May 1927	120
3.40. Façade of the Hibiya Public Hall. Source: Original postcard from the collection of the author, no copyright specified	122
3.41. Interior of the Hibiya Public Hall. Source: <i>Journal of the Insti- tute of Japanese Architects</i> , 43 (528), December 1929	122
3.42. Longitudinal section and floor plan of the Hibiya Public Hall, Source: <i>Journal of the Institute of Japanese Architects</i> , 43 (528), December 1929	124
3.43. Façade of the Tokyo Gekijō. Source: Ōbayashi gumi 大林組. 1930. Tōkyō gekijō 東京劇場. Ōsaka: Ōbayashi gumi.	128
3.44. Interior of the Tokyo Gekijō. Source: Ōbayashi gumi 大林組. 1930. Tōkyō gekijō 東京劇場. Ōsaka: Ōbayashi gumi.	128
3.45. Ground floor plan and first floor plan of the Tokyo Gekijō, Source: Ōbayashi gumi 大林組. 1930. Tōkyō gekijō 東京劇 場. Ōsaka: Ōbayashi gumi.	129
3.46. Façade of the Nippon Gekijō, Source: Kawamura, Shoichi. 1936. <i>Architectural Japan: Old – New</i> . Tokyo: The Japan Times & Mail	131
3.47. Interior of the Nippon Gekijō, Source: Ōbayashi gumi 大林組. 1933. Nippon gekijō 日本劇場. Ōsaka: Ōbayashi gumi.	131
3.48. Longitudinal section and floor plan of the Nippon Gekijō. Source: Ōbayashi gumi 大林組. 1933. Nippon gekijō 日本劇 場. Ōsaka: Ōbayashi gumi.	133
3.49. Façade of the Gunjin Kaikan. Source: Kawamura, Shoichi. 1936. <i>Architectural Japan: Old – New</i> . Tokyo: The Japan Times & Mail	135
3.50. Interior of the Gunjin Kaikan, Source: Kawamura, Shoichi. 1936. <i>Architectural Japan: Old – New</i> . Tokyo: The Japan Times & Mail	135
3.51. Floor plan of the Gunjin Kaikan. Source: <i>Journal of the Insti- tute of Japanese Architects</i> , Vol. 48, no. 587, July 1934, 815	137

3.52. Façade of the Tokyo Takarazuka Theatre. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 48, no. 585, May 1934, 506	139
3.53. Interior of the Tokyo Takarazuka Theatre. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 48, no. 585, May 1934, 506	139
3.54. Longitudinal section and floor plan of the Tokyo Takarazuka theatre. Source: <i>Journal of the Institute of Japanese Architects</i> , Vol. 48, no. 585, May 1934, 503	141
3.55. Façade of the Yūroku-za theatre, opened in 1935, Source: From the collection of the “Postcard Museum”, www.ehagaki.org	143
3.56. Interior of the Yūroku-za, Source: <i>Journal of Architecture and Building Science</i> , Vol. 49, no. 602, August 1935, 1041	143
3.57. Longitudinal section and floor plan of the Yūroku-za, Source: <i>Journal of Architecture and Building Science</i> 49, no. 602, August 1935, 1041	144
3.58. Façade of the Kyōritsu Auditorium before the fire in 1956, Source: Provided to the author by the Kyoritsu Women’s Academy General Affairs Division.	146
3.59. Interior of the auditorium showing a school event sometime before the fire in 1956. Source: Provided to the author by the Kyoritsu Women’s Academy General Affairs Division.	146
4.1. Example of the modelling of the absorption coefficients by a triangular probability distribution. The sampling points depend on the size of the equivalent absorption area.	153
4.2. Calculated reverberation times and the resulting mean value \bar{x} and the confidence intervals CI 95%	154
4.3. Geometric model used in the simulation of the hall of the Academy of Music	156
4.4. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the hall of the Academy of Music	157
4.5. Room acoustic parameters as a function of the distance from the source for the hall of the Academy of Music	158
4.6. Geometric model used in the simulation of the Kanda Y.M.C.A	159
4.7. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Kanda Y.M.C.A	160
4.8. Room acoustic parameters as a function of the distance from the source for the Kanda Y.M.C.A	161
4.9. Geometric model used in the simulation of the Imperial Theatre	162

4.10. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Imperial Theatre	163
4.11. Room acoustic parameters as a function of the distance from the source for the Imperial Theatre	164
4.12. Geometric model used in the simulation of the Nanki Auditorium	165
4.13. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nanki Auditorium	166
4.14. Room acoustic parameters as a function of the distance from the source for the Nanki Auditorium	167
4.15. Geometric model used in the simulation of the Kabuki-za	168
4.16. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Kabuki-za	169
4.17. Room acoustic parameters as a function of the distance from the source for the Kabuki-za	170
4.18. Geometric model used in the simulation of the Nihon Seinenkan	171
4.19. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nihon Seinenkan	172
4.20. Room acoustic parameters as a function of the distance from the source for the Nihon Seinenkan	173
4.21. Geometric model used in the simulation of the Hibiya Public Hall	174
4.22. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Hibiya Public Hall	175
4.23. Room acoustic parameters as a function of the distance from the source for the Hibiya Public Hall	176
4.24. Geometric model used in the simulation of the Nippon Gekijō	177
4.25. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Nippon Gekijō	178
4.26. Room acoustic parameters as a function of the distance from the source for the Nippon Gekijō	179
4.27. Geometric model used in the simulation of the Gunjin Kaikan	180
4.28. Room average \bar{x} and confidence intervals CI 95% of the reverberation time t for the Gunjin Kaikan	181
4.29. Room acoustic parameters as a function of the distance from the source for the Gunjin Kaikan	182
4.30. Reverberation times t as a function of the volume V (occupied)	183
4.31. Strength factor G as a function of the volume V (unoccupied)	184
4.32. Clarity C_{80} as a function of the reverberation time T (unoccupied)	185
4.33. J_{LF} as a function the room with (unoccupied)	186

- 5.1. Examples of concert halls built in the second half of the nineteenth century, Source: Michael Forsyth. 1985. *Buildings for music: the architect, the musician, and the listener from the 17th century to the present day*. Cambridge: MIT Press 191
- 5.2. Performance venues in Tokyo between 1920 and 2000, Source: Hoffman, Ian B., Christopher A. Storch, and Timothy J. Foulkes. *Halls for Music Performance: Another Two Decades of Experience 1982–2002*. New York: Acoustical Society of America . . . 199

List of Tables

2.1.	Names of concert venues and number of subscription concerts played by the New Symphony orchestra, found in the book celebrating the 50th anniversary of the NHK Symphony Orchestra.	42
2.2.	Names of concert venues and number concerts found in the list of important orchestral performances by Yokota.	42
2.3.	Results of cross-referencing the list compiled by Maeno with the Japan Times database search results for <code>concert</code> and <code>orchestra</code> , names are given as they were found in the Japan Times.	43
2.4.	Number of musicians per instrument of Junker’s “Choral and Orchestral Society”, around the time of the first concert in 1989. The brass section consisted of one euphonium, the percussions instruments included tambourine, cymbals, triangle and drums (Masumoto 1978, 119).	49
2.5.	Composition of the orchestra, at the concert of the Tokyo Symphony orchestra at the Imperial Hotel.	61
2.6.	Composition of the orchestra, at the concert to commemorate the 26 th centenary of the founding of the Japanese Empire, in addition to the instruments displayed, one organ is mentioned.	69
4.1.	Listening aspects, the correlated acoustic quantities and the their just noticeable differences (JND), as given in ISO 3382-1 (2009, 12).	147
4.2.	Acronyms, Volume V derived from the geometric models (excluding the stagehouse), as well as number of faces and receivers per room.	150
4.3.	Audience area, seating capacity, and area per listener	151
4.4.	Name of the materials used, size of the surface covered with the material, minimum and maximum equivalent sound absorption areas, absolute value of the difference between the minimum and maximum of the equivalent absorption areas and resulting sampling value for the example of the occupied Nihon Seinenkan.	152

4.5.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the hall of the Academy of Music.	157
4.6.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Kanda Y.M.C.A. . .	160
4.7.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Imperial Theatre. .	163
4.8.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nanki Auditorium.	166
4.9.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Kabuki-za.	169
4.10.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nihon Seinenkan. .	172
4.11.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Hibiya Public Hall.	175
4.12.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Nippon Gekijo. . .	178
4.13.	Mean value \bar{x} of the range of possible absorption coefficients, as well as the number of sample points used for each material in the simulations of the occupied state of the Gunjin Kaikan. . .	181
C.1.	Minimum, maximum and mean of the absorption values used in the simulations in this study.	207
D.1.	Results of cross-referencing the list compiled by Maeno with the Japan Times database search results for concert and orchestra.	209

Bibliography

- Akashi, Nobumichi 明石信道. 1972. *Kyū teikoku hoteru no jisshōteki kenkyū* 旧帝国ホテルの実証的研究. Tōkyō: Tōkōdō Shoten.
- Akiyama, Tatsuhide, ed. 秋山龍秀. 1966. *Nihon no yōgaku hyakunenshi* 日本の洋楽百年史. Tōkyō: Daiichi hōki shuppan.
- Allen, George Cyril. 1981. *A short economic history of modern Japan*. 4th ed. London: The MacMillan Press.
- Anazawa, Takeaki. 2014. “Historical Development of Analog Disk Recording Technology and Artifacts Now in Existence: Shift from Mechanical to Electrical Recording Methods for Duration Recordings and Stereo Sound.” *National Museum of Nature and Science Technology Systematization Survey Report* 21:1–77.
- Asahi Shimbunsha. 1984. *Yūrakuchō 60 nen: Asahishinbunsha no uchi soto* 有楽町 60 年: 朝日新聞社のうち・そと. Tokyo: Asahi Shimbunsha.
- Atkins, E. Taylor. 2001. *Blue Nippon: Authenticating jazz in Japan*. Durham, North Carolina: Duke University Press.
- Azabu Regional City Office. 2018. “Nanki Gakudo: (Nanki Auditorium).” *The Azabu* 18:3. Accessed April 20, 2022. https://www.city.minato.tokyo.jp/azabuchikusei/azabu/koho/documents/azabu_vol18.pdf.
- Bagenal, Hope. 1952. “Musical Taste and Concert Hall Design.” *Proceedings of the Royal Musical Association*: 11–29.
- Bälz, Toku. 1937. *Erwin Bälz: das Leben eines deutschen Arztes im erwachsenen Japan ; Tagebücher, Briefe, Berichte*. 3rd ed. Stuttgart: Engelhorn.
- Baron, John H. 2013. *Concert Life in Nineteenth-Century New Orleans: A Comprehensive Reference*. Baton Rouge: LSU Press.
- Barron, Michael. 2010. *Auditorium acoustics and architectural design*. 2nd ed. London: Spon.
- Barron, Mike. 2005. “Using the standard on objective measures for concert auditoria, ISO 3382, to give reliable results.” *Acoustical Science and Technology* 26 (2): 162–169. doi:10.1250/ast.26.162.
- Bates, Alex. 2015. *The culture of the quake: The great Kanto Earthquake and Taishō Japan*. Vol. 78. Michigan Monograph Series in Japanese Studies. Ann Arbor: Center for Japanese Studies, The University of Michigan.

- Beranek, Leo Leroy. 1996. *Concert and opera halls: How they sound*. Woodbury, New York: Acoustical Society of America.
- Bieber, Hans-Joachim. 2014. *SS und Samurai: Deutsch-japanische Kulturbeziehungen 1933–1945*. Monographien aus dem Deutschen Institut für Japanstudien, Band 55. München: Iudicium.
- Böckmann, Wilhelm. 1886. *Reise nach Japan*. Berlin: Reichsdruckerei. Accessed April 20, 2022. <http://resolver.staatsbibliothek-berlin.de/SBB000003D300000000>.
- Böhm, Christoph, Zora Schärer Kalkandjiev, and Stefan Weinzierl. 2016. “Virtuelle Konzerträume als Versuchsumgebung für Musiker.” In *Fortschritte der Akustik: Tagungsband der 42. DAGA*, 833–835. Aachen. doi:10.14279/depositonce-8809.
- Bork, Ingolf. 2005a. “Report on the 3rd Round Robin on Room Acoustical Computer Simulations: Part I: Measurements.” *Acta Acustica united with Acustica* 91:740–752.
- Bork, Ingolf. 2005b. “Report on the 3rd Round Robin on Room Acoustical Computer Simulations: Part II: Calculations.” *Acta Acustica united with Acustica* 91:753–763.
- Borris, Siegfried. 1967. *Musikleben in Japan in Geschichte und Gegenwart*. Kassel: Bärenreiter.
- Boxer, Charles Ralph. 1951. *The Christian Century in Japan 1549–1650*. Berkeley: University of California Press.
- Bunkazai kenzōbutsu hozon gijutsu kyōkai, ed. 文化財建造物保存技術協会. 1987. *Kyū tōkyō ongaku gakkō sōgakudō ichiku shūri kōji hōkokusho* 旧東京音楽学校奏楽堂移築修理報告書. Tōkyō: Taitō-ku.
- Büttner, Clemens, and Stefan Weinzierl. 2014. “The Imperial Theatre and the Nanki Auditorium. Two early concert venues in Tokyo.” *Fortschritte der Akustik – DAGA 2014*, 40. *Deutsche Jahrestagung für Akustik*: 768–769. doi:10.14279/depositonce-8772.
- Büttner, Clemens, Mitsuru Yabushita, Antonio Sanchez-Parejo, and Yu Morishita. 2019. “The Acoustics of Kabuki Theaters.” *Acta Acustica united with Acustica* 105 (6): 1105–1113. doi:10.3813/AAA.919389.
- Chamberlain, Basil Hall. 1902. *Things japanese: being notes on various subjects connected with Japan for the use of travellers and others*. 4th ed. London: Murray.
- Coaldrake, William Howard. 1996. *Architecture and authority in Japan*. London: Routledge.

- Cohen, Aaron M. 1997. "Hanka Schjelderup Petzold (1862–1937), Japan's "Mother of Voice": An Appreciation." *Reitaku University Journal* 64.
- Craig, Albert M. 2009. *Civilization and enlightenment: The early thought of Fukuzawa Yukichi*. Cambridge: Harvard University Press.
- Danford, Richard K., Robin D. Gill, and Daniel T. Reff, eds. 2014. *The first European description of Japan, 1585: A critical English-language edition of Striking Contrasts in the Customs of Europe and Japan by Luis Frois, S.J.* New York: Routledge.
- Davidann, Jon Thares. 1998. *A world of crisis and progress: The American YMCA in Japan, 1890–1930*. Bethlehem, Pennsylvania: Lehigh University Press.
- Duke, Benjamin C. 2009. *The history of modern Japanese education: Constructing the national school system, 1872–1890*. New Brunswick, New Jersey: Rutgers University Press.
- Elkin, Robert. 1955. *The old concert rooms of London*. London: Arnold.
- Embrechts, Jean-Jacques. 2001. "Determination of the Scattering Coefficient of Statistical Rough Surfaces." In *17th International Congress on Acoustics*. Rome.
- Ensō no 80 nenshi henshū gurūpu, ed. 演奏の 80 年史研究グループ. 2007. *Kunitachi ongaku gakko ensō no 80 nenshi: 1926 nen – 1950 nen san gastu* 国立音楽学校演奏の 80 年史、1926 年–1950 年 3 月. Tokyo: Kunitachi Ongaku Gakko.
- Ferranti, Hugh de, and Alison Tokita, eds. 2013. *Music, modernity and locality in prewar Japan: Osaka and beyond*. SOAS musicology series. Farnham: Ashgate.
- Finn, Dallas. 1995. *Meiji revisited: The sites of Victorian Japan*. New York: Weatherhill.
- Finn, Dallas. 2006. "Reassessing the Rokumeikan." In *Challenging past and present*, edited by Ellen P. Conant, 227–239. Honolulu: University of Hawai'i Press.
- Forsyth, Michael. 1985. *Buildings for music: the architect, the musician, and the listener from the 17th century to the present day*. Cambridge: MIT Press.
- Frampton, Kenneth, Kunio Kudo, and Keith Vincent. 1997. *Japanese building practice: From ancient times to the Meiji period*. New York: Van Nostrand Reinhold.
- Fujimori, Terunobu 藤森照信. 1995. *Fukugen rokumeikan nikoraidō dai ichi kokuritsu ginkō: edo tōkyō hakubutsukan jōsetsu tenji tōkyō zōn* 復元

鹿鳴館・ニコライ堂・第一国立銀行: 江戸東京博物館常設展示東京ゾーン. Tokyo: Yūshipuranningu.

- Funck, Carolin, and Malcolm Cooper. 2013. *Japanese tourism: Spaces, places and structures*. Vol. 5. Asia Pacific studies. New York: Berghahn Books.
- Galliano, Luciana. 2002. *Yōgaku: Japanese music in the twentieth century*. Lanham: Scarecrow Press.
- Galliano, Luciana. 2006. "Manfred Gurlitt and the Japanese Operatic Scene, 1939–1972." *Japan Review*, no. 18: 215–248.
- Glogau, Hans-Ulrich. 1989. *Der Konzertsaal: Zur Struktur alter und neuer Konzerthäuser*. Vol. 54. Studien zur Kunstgeschichte. Hildesheim: Olms.
- Gotō, Nobunko. 2016. "Yamada, Kōsaku." In *MGG Online*, edited by Laurenz Lütteken. Kassel, Stuttgart, and New York: Bärenreiter. Accessed April 20, 2022. <https://www.mgg-online.com/mgg/stable/21606>.
- Gottschewski, Hermann. 2013. "Franz Eckert und ‚seine‘ Nationalhymnen: Eine Einführung." *OAG-Notizen, Deutsche Gesellschaft für Natur- und Völkerkunde Ostasiens* 12:27–30. Accessed April 20, 2022. https://www.oag.jp/img/images/publications/oag_notizen/Feature_II_-_Kimigayo.pdf.
- Gottschewski, Hermann. 2017. "Margaret Mehl: Not by Love Alone: The Violin in Japan, 1850–2010 (book review)." In *Japonica Humboldtiana*, edited by Michael Kinski, Klaus Kracht, and Markus Rüttermann, 19:175–202. Wiesbaden: Harrassowitz.
- Götz, Helma. 1996. *Manfred Gurlitt: Leben und Werk: Zugl.: Göttingen, Univ., Diss., 1995*. Vol. Bd. 161. Europäische Hochschulschriften Reihe 36, Musikwissenschaft. Frankfurt am Main: Lang.
- Grilli, Marcel. 1977. "Summary Outline of the NHK Symphony Orchestra: 1926–1977." In *NHK kōkyō gakudan gojū nenshi: 1926–1977*, edited by NHK kōkyō gakudan, 290–293. Tokyo: Nippon hōsō shuppan kyōkai.
- Hanslick, Eduard. 1870. *Geschichte des Concertwesens in Wien*. Hildesheim: Olms.
- Harich-Schneider, Eta. 1973. *A history of Japanese music*. London: Oxford University Press.
- Harich-Schneider, Eta. 1978. *Charaktere und Katastrophen: Augenzeugenberichte einer reisenden Musikerin*. Berlin: Ullstein.
- Harich-Schneider, Eta, and Ingrid Fritsch, eds. 2006. *Musikalische Impressionen aus Japan: 1941–1957*. München: Iudicium.

- Havens, Thomas R. H. 2011. *Parkscapes: Green spaces in modern Japan*. Honolulu: University of Hawai'i Press.
- Hayasaki, Erina. 2011. "Ein jüdisch-deutscher Musiker in Japan während des Krieges: Klaus Pringsheim (1883–1972)." In *Flucht und Rettung – Exil im japanischen Herrschaftsbereich*, edited by Thomas Pekar. Berlin: Metropol.
- Hayashi, Shoji et al. 林章二. 2011. "Kabukiza tatemono chōsa, sono 2: Shiryō chōsa ni okeru daiyonki kaishū no gaiyō" 歌舞伎座建物調査, その 2. *AIJ Summaries of Technical Papers of Annual Meeting* 9132:263–264.
- Hebert, David G. 2012. *Wind bands and cultural identity in Japanese schools*. Vol. 9. Landscapes. Dordrecht: Springer. doi:10.1080/14613808.2013.872944.
- Henshall, Kenneth G. 2014. *Historical dictionary of Japan to 1945*. Historical dictionaries of ancient civilizations and historical eras. Lanham: The Scarecrow Press.
- Hirasawa, Hiroko. 1996. "Rudolf Dittrich: Leben und Werk." Doctoral Thesis, University of Vienna.
- Hirayama, Takashi 平山嵩. 1954. "Auditorium no onkyō ni tsuite" オーディトリウムの音響について. *Journal of Architecture and Building Science* 69 (813): 18–21.
- Hirayama, Takashi, Akira Koda, Yokoyama Kōichi, and Sakataten hajime 平山嵩; 幸田彰; 横山浩一; 坂田展甫, 中川美敏. 1958. "Kyōritsu kōdō no zankyō jikan" 共立講堂の残響時間. *Architectural Society of Japan Research Report* 43:49–52.
- Hirschfeld, Mattias. 2005. *Beethoven in Japan: Zur Einführung und Verbreitung westlicher Musik in der japanischen Gesellschaft*. Hamburg: Von Bockel.
- Howard, Deborah, and Laura Moretti. 2009. *Sound and space in Renaissance Venice: Architecture, music, acoustics*. New Haven: Yale University Press.
- Howe, Sondra Wieland. 1997. *Luther Whiting Mason: International music educator*. Vol. 21. Detroit monographs in musicology, studies in music. Warren, Michigan: Harmonie Park Press.
- Howell, David L. 2010. "Reviewed Work: Civilization and Enlightenment: The Early Thought of Fukuzawa Yukichi by Albert M. Craig." *Pacific Affairs* 83 (2): 398–400. <http://www.jstor.org/stable/25698482>.
- Ishiyama, Toshihiko 石川俊彦. 2013. *Kabuki-za godai: Kobiki chō fūunroku* 歌舞伎座五代. Tōkyō: Iwanami Shoten.

- ISO 17497-1. 2004. *Acoustics — Sound-scattering properties of surfaces — Part 1: Measurement of the random-incidence scattering coefficient in a reverberation room.*
- ISO 3382-1. 2009. *Acoustics — Measurement of room acoustic parameters — Part 1: Performance spaces.*
- ISO 354. 2003. *Acoustics — Measurement of sound absorption in a reverberation room.*
- Itasaka, Gen, ed. 1983. *Kodansha encyclopedia of Japan.* Tokyo: Kodansha.
- Itoda, Soichiro. 2008. *Berlin & Tokyo - Theater und Hauptstadt: Berurin-to-Tokyo-gekijo-to-toshi.* München: Iudicium.
- Izenour, George C. 1977. *Theater design.* New York: McGraw-Hill Book Company.
- Jackson, Neil. 2010. “Thomas James Waters (1842–98): Bibles and Bricks in Bakumatsu and Early-Meiji Japan.” In *Britain & Japan*, edited by Hugh Cortazzi, 469–486. Folkestone: Global Oriental.
- Jackson, Neil. 2015. “The Westernization of Japanese Performance Venue between 1870 and 1970.” In *Setting the scene*, edited by Alistair Fair, 61–79. Farnham: Ashgate.
- James, Cary. 1968. *Frank Lloyd Wright’s Imperial Hotel.* New York: Constable.
- Kanō, Mari. 2002. “Social Groups and Institutions in Japan.” In *East Asia: China, Japan, and Korea*, edited by Robert C. Provine, Yoshihiko Tokumaru, and Lawrence J. Witzleben, 755–761. The Garland encyclopedia of world music. New York: Routledge.
- Kanshi hensan iinkai, ed. 館史編纂委員会. 1991. *Zaidan hōjin nihon seinen kaikan shichijū nenshi* 財団法人日本青年会館七十年史. Tōkyō: Nihon seinen kaikan.
- Kashiwai En 柏井園. 1907. *Bankoku seinen taikai kōenshū* 万国青年大会講演集. Tokyo: Nippon kirisutokyō seinenkai dōmei.
- Katō, Yoshiyuki, ed. 河東義之. 1980. *Josaia kondoru kenchiku zumenshū 1* ジョサイア・コンドル建築図面集. Tokyo: Chūōkōron bijutsu shuppan.
- Kawahara, Ichiro. 1996. *Tokyo – Hope and Recovery: Urban Civilization and Environment.* Tokyo: Process Architecture.
- Kawamura, Shoichi. 1936. *Architectural Japan: Old – New.* Tōkyō: The Japan Times & Mail.
- Kawatake, Toshio. 2003. *Kabuki: baroque fusion of the arts.* 1st ed. Tokyo: The International House of Japan.

- Kimura, Eijirō 木村榮二郎. 1925. "Nihon Seinenkan no kōji" 日本青年館の
工事. *Doboku kenchiku kōji gahō* 1 (9): 3–15. [http://library.jsce.
or.jp/Image_DB/mag/gaho/kenchikukouji/01_09.html](http://library.jsce.or.jp/Image_DB/mag/gaho/kenchikukouji/01_09.html).
- Kirishiki, Shinjiro. 1968. "The story of the Imperial Hotel, Tokyo." *The
Japan Architect* 138 (2): 132–138.
- Kobayashi, Ichizō 小林一三. 1935. *Watakushi no ikikata* 私の行き方. Tōkyō:
Tonan Shoin.
- Kobayashi, Tetsuya, Takeshi Nakagawa, and Isamu Yoneyama 小林徹也、中
川武、米山勇. 1997. "Kyū teikoku gekijō no fukugenteki kōsatsu." 旧
帝国劇場の復元的考察. *Journal of the Architectural Institute of Japan*
67:453–456.
- Konoe, Hidemaro 近衛秀麿. 1999. *Okesutora wo kiku hito he* オーケストラ
を聞く人へ. Tōkyō: Ongaku no tomosha.
- Kron, Gustav. 1929. "Die Entwicklung abendländischer Musik in Japan
und über japanische Musik: Auszug aus einem Vortrag, gehalten in
der Ortsgruppe Braunschweig des R.D.T.M." *Deutsche Tonkünstler-
Zeitung* 27 (493): 411–412.
- Kurata, Yoshihiro 倉田喜弘. 1976. *Nihon rekōdo bunkashi* 日本レコード文
化史. Tōkyō: Tōkyō shoseki.
- Kurokawa, Kanazaburō, and Takeo Satō 黒川兼三郎、佐藤武夫. 1925. "Ta-
karazuka dai gekijō no onkyōgaku teki chōsa" 宝塚大劇場の音響学的
調査. *Waseda kenchiku gakuho* 4:1–18.
- Laube-Przygodda, Gerda. 2001. *Musik dreier Kulturen. Orchestermusik des
20. Jahrhunderts in Europa, den Vereinigten Staaten von Amerika
und Japan – eine synchrone Gegenüberstellung*. Vol. 124. Deutsche
Hochschuledition. Neuried: Ars Una.
- Linsenmeyer, Klaus. 2006. *Wilhelm Kempff: Lebensskizzen eines grossen Pi-
anisten*. 1st ed. Wilhelmshaven: F. Noetzel.
- Lloyd Jones, Gwyn. 2017. *Travels with Frank Lloyd Wright*. London: Lund
Humphries.
- Lyon, William H. 2003. "An American in Japan: William Merrell Vories (Hi-
totsuyanagi), 1905–1964." *Dōshisha amerika kenkyū* 39:37–60.
- Maeno, Masaru 前野まさる. 1984. "Kyū tōkyō ongaku gakkō sogakudō nit-
suite" 旧東京音楽学校奏楽堂について. *Proceedings of the Architectural
Institute of Japan* 59:2695–2696.
- Malan, Roy. 2004. *Efrem Zimbalist: A life*. Pompton Plains, New Jersey:
Amadeus Press.

- Mansfield, Stephen. 2009. *Tokyo: A cultural history*. Oxford and New York: Oxford University Press.
- Masumoto, Masahiko 升本匡彦. 1978. *Yokohama gēte za: meiji, taishō no seiyō gekijō* 横浜ゲーテ座. Yokohama: Yokohamashi kyōiku iinkai.
- McClimon, Sarah. 2016. "Western Challenge, Japanese Musical Response: Military Bands in Modern Japan." In *Brass bands of the world*, edited by Suzel Ana Reily and Katherine Brucher, 55–78. SOAS musicology series. London: Routledge.
- McVeigh, Simon. 1993. *Concert life in London from Mozart to Haydn*. Cambridge: Cambridge University Press.
- Mehl, Margaret. 2014. *Not by love alone. The violin in Japan, 1850–2010*. Copenhagen: The Sound Book Press.
- Meid, Michiko. 1977. *Der Einführungsprozeß der europäischen und der nordamerikanischen Architektur in Japan seit 1542: Zugl.: Köln, Univ., Philos. Fak., Diss., 1976*. Vol. 11. Veröffentlichungen der Abteilung Architektur des Kunsthistorischen Instituts der Universität Köln. Köln: Kleikamp.
- Meyer, Jürgen. 1978. "Raumakustik und Orchesterklang in den Konzertsälen Joseph Haydns." *Acta Acustica united with Acustica* 41:145–162.
- Mikami, Yasuo 三上泰生. 1983. *Zankyō 2 byō: za shinfonihōru no tanjō* 残響 2 秒. Osaka: Osaka shoseki.
- Mine, Takashi 嶺隆. 1996. *Teikoku gekijō kaimaku: Kyō wa teigeki ashita wa mitsukoshi* 帝国劇場開幕. Tokyo: Chūō kōronsha.
- Mori, Setsuko. 1989. "A Historical Survey of Music Periodicals in Japan: 1881–1920." *Fontes Artis Musicae* 36 (1): 44–50.
- Morison, Samuel Eliot. 1968. "Old Bruin": *Commodore Matthew C. Perry, 1794–1858*. Boston and Toronto: Little, Brown & Co.
- Morreau, Annette. 2002. *Emanuel Feuermann*. New Haven, Connecticut: Yale University Press.
- Morrow, Mary Sue. 1989. *Concert life in Haydn's Vienna: Aspects of a developing musical and social institution*. New York: Pendragon Press.
- Morse, Edward Sylvester. 1917. *Japan day by day, 1877, 1878–79, 1882–83*. Boston: Houghton Mifflin.
- Morton-Cameron, W. H., and W. Feldwick, eds. 1919. *Present-day impressions of Japan: The history people commerce industries and resources of Japan and Japan's colonial empire Kwantung Chosen Taiwan Karafuto*. London: The Globe Encyclopedia Company.

- Murakami, Kishirō 村上紀史郎. 2012. *Ongaku no Tonosama, Tokugawa Yorisada: 1500 oku en no nōburesu oburīju* 音楽の殿様・徳川頼貞：1500億円のノーブレス・オブリージュ. Tokyo: Fujiwara shoten.
- Nagai, Satoko 永井聡子. 2014. *Gekijō no kindaiika: Teikoku Gekijō, Tsukiji Shōgekijō, Tōkyō Takarazuka Gekijō* 劇場の近代化. Kyōto: Shibunkaku Shuppan.
- Nagata, Minoru. 2001. *Taking Stock after 50 Years of Hall Acoustical Design*. Accessed September 10, 2019. <https://www.nagata.co.jp/news/news0101-e.htm>.
- Nakasone, Genkichi. 2003. *Die Einführung der westlichen, besonders deutschen Musik im Japan der Meiji-Zeit*. Vol. 38. Soziologie. Münster: Lit.
- Negishi, Kazumi. 2014. *Joseph Laska (1886–1964): Ein österreichischer Komponist und Dirigent in Japan*. Wien: Böhlau Verlag.
- NHK kōkyō gakudan, ed. NHK 交響楽団. 1977. *NHK kōkyō gakudan gojū nenshi: 1926–1977* NHK 交響楽団五十年史. Tokyo: Nippon hōsō shuppan kyōkai.
- Nihon seinenkan kanshi hensan iinkai. 1991. *Wakamonotachi to ayumi tsuzukete: Nihon seinenkanshi nanajūnenshi* 若者たちと歩みつづけて (財) 日本青年館史 70 年史. Tokyo: Nihon Seinenkan.
- Nish, Ian. 2004. “Sir Claude MacDonald: Minister and first Ambassador to Japan, 1900–12.” In *British Envoys in Japan*, edited by Hugh Cortazzi, 94–102. Folkestone: Global Oriental.
- Ōbayashi gumi 大林組. 1930. *Tōkyō gekijō* 東京劇場. Ōsaka: Ōbayashi gumi.
- Ōbayashi gumi 大林組. 1933. *Nippon gekijō* 日本劇場. Ōsaka: Ōbayashi gumi.
- Oguchi, Keiji, Marc Quiquerez, and Yasuhisa Toyota. 2015. “Acoustical design of Elbphilharmonie.” In *Proceedings of the 9th International Conference on Auditorium Acoustics*, 89–96.
- Okamoto, Shiro. 2001. *The man who saved Kabuki: Faubion Bowers and theatre censorship in occupied Japan*. Honolulu: University of Hawai'i Press.
- Ōoka, Minoru, Fujio Isaka, and Yoshiro Taniguchi. 1936. *Kenchiku zasshi sō mokuroku*. Tokyo.
- Osswald, F. M. 1927. “Zum Problem der Akustik im grossen Versammlungssaal des Völkerbund-Gebäudes in Genf.” *Schweizerische Bauzeitung* 90 (5): 59–66.

- Ota, Masao, ed. 東京大学音楽部管弦楽団. 1964. *Todai ōkesutora 45 nenshi: 1920–1964 東大オーケストラ 45 年史*. Tokyo: Tokyo daigaku ongakubu kangengakudan.
- Owaga, Takashi. 1977. “Chronological List of Performances, 1926–1977.” In *NHK kōkyō gakudan gojū nenshi: 1926–1977*, edited by NHK kōkyō gakudan. Tokyo: Nippon hōsō shuppan kyōkai.
- Pagel, Franziska. 2019. *Ende und Böckmann: Ein Berliner Architekturbüro im 19. Jahrhundert*. Berlin: Gebr. Mann Verlag.
- Perry, Matthew Calbraith, Roger Pineau, and Samuel Eliot Morison, eds. 1968. *The Japan expedition, 1852–1854: The personal journal of Commodore Matthew C. Perry*. Vol. 4743. Smithsonian Institution Publication. Washington, DC: Smithsonian Institution Press.
- Pfeiffer, Bruce Brooks, ed. 1992. *Frank Lloyd Wright collected writings, Vol. 1: 1894–1930*. New York: Rizzoli.
- Pohl, C. F. 1867. *Mozart und Haydn in London*. Wien: Gerold.
- Prokofiev, Sergey. 1960. *Autobiography, articles, reminiscences*. Honolulu: University Press of the Pacific.
- Quiquerez, Marc, Keiji Oguchi, Motoo Komoda, Daniel Beckmann, and Yasuhisa Toyota. 2018. “Acoustic test with 1:10 scale model: Elbphilharmonie case study.” In *Proceedings of the 10th International Conference on Auditorium Acoustics*, 38:97–104.
- Rabbitts, Paul A. 2011. *Bandstands*. Oxford: Shire Publications.
- Reynolds, Jonathan M. 2001. *Maekawa Kunio and the emergence of Japanese modernist architecture*. Berkeley: University of California Press.
- Rindel, Jens Holger. 2000. “The use of computer modelling in room acoustics.” *Journal of Vibroengineering* 3:219–224.
- Röder, Matthias. 2009. “Music, politics, and the public sphere in late eighteenth-century Berlin.” Dissertation, Harvard University.
- Rosenstock, Joseph ジョセフ・ローゼンストック. 1980. *Rosensutokku kaisōroku: Ongaku ha waga inochi* ローゼンストック回想録. Nihon hōsō shuppan kyōkai.
- Rubinstein, Artur. 1980. *My Many Years*. New York: Knopf.
- Sabine, Wallace Clement. 1922. *Collected papers on acoustics*. Cambridge: Harvard University Press.
- Saegusa, Mari 三枝まり. 2004. “Incunabula of the Japanese Orchestra Movement: Focussing on the Mitsukoshi Boy’s Band” 日本の交響楽運動の

- 黎明期、三越少年音楽隊を中心として. *Journal of the Musicological Society of Japan* 50 (1): 13/26.
- Saint, Andrew. 2003. "Frank Lloyd Wright and Paul Mueller: The architect and his builder of choice." *Architectural Research Quarterly* 7:157–167. doi:10.1017/S1359135503002112.
- Sano, Yukihiko 佐野之彦. 2007. *N-Kyō 80 nen zenkiroku* N響80年全記録. Tōkyō: Bungei Shunju.
- Satō, Takeo 佐藤武夫. 1929. "Waseda daigaku ōkuma kōdō no onkyō sekkei" 早稲田大学大隈講堂の音響設計. *Waseda kenchiku gaku* 6.
- Satō, Takeo 佐藤武夫. 1930. "Tokyo-shi hibiya kōkaidō no onkyō ni tsuite" 東京市日比谷公会堂の音響に就いて. *Nihon kenchikushi* 7 (1): 6–19.
- Satō, Takeo 佐藤武夫. 1934. "Ōditoriumu onkyō sekkei no jissai" オーディトリウム音響設計の実際. *Journal of the Institute of Japanese Architects* 587 (7): 753–767.
- Satō, Takeo 佐藤武夫. 1966. *Kōkaidō Kenchiku* 公会堂建築. Tōkyō: Sagami shobō.
- Schauwecker, Detlev. 1994. "Musik und Politik. Tokyo 1934–1944." In *Formierung und Fall der Achse Berlin-Tōkyō*, edited by Gerhard Krebs, 211–253. Monographien aus dem Deutschen Institut für Japanstudien der Philipp-Franz-von-Siebold-Stiftung. München: Iudicium.
- Schauwecker, Detlev. 2007. "Hanka Schjelderup Petzold (1862–1937): Eine norwegische Musikerin im Japan der Taisho-Jahre." *Kansai Daigaku Gaikokugokuyōiku Kenkyū* 12:57–77. Accessed June 19, 2017. https://www.kansai-u.ac.jp/fl/publication/pdf_education/13/05_schauwecker_57.pdf.
- Schencking, J. Charles. 2006. "Catastrophe, Opportunism, Contestation: The Fractured Politics of Reconstructing Tokyo following the Great Kantō Earthquake of 1923." *Modern Asian Studies* 40 (4): 833–873.
- Schröder, Dirk. 2012. "Physically Based Real-Time Auralization of Interactive Virtual Environments." Dissertation, Rheinisch-Westfälischen Technischen Hochschule Aachen.
- Schröder, Dirk, and Michael Vorländer. 2011. "RAVEN: A real-time framework for the auralization of interactive virtual environments." In *Forum Acusticum Aalborg, 6th European Congress on Acoustics*, 97:1541–1546.
- Schwentker, Wolfgang. 1994. "Modernisierung von oben: Japan im 19. Jahrhundert." In *Asien in der Neuzeit*, edited by Jürgen Osterhammel and Sabine-Dabringhaus, 101–124. Frankfurt am Main: Fischer.

- Seidensticker, Edward. 1983. *Low city, high city: Tokyo from Edo to the earthquake*. Rutland: C.E. Tuttle.
- Seike, Kiyoshi. 1977. *The art of Japanese joinery*. 1st English ed. New York: J. Weatherhill.
- Shindō, Hironobu 新藤浩伸. 2014. *Kōkaidō to minshū no kindai: Rekishi ga enshutsusareta butai kūkan 公会堂と民衆の近代: 歴史が演出された舞台空間*. Shohan. Tokyo: Tokyo daigaku shuppankai.
- Shively, Donald H. 2002. "Bakufu versus Kabuki." In *A kabuki reader*, edited by Samuel L. Leiter, 33–59. New York: Sharpe.
- Sittard, Josef. 1890. *Geschichte des Musik- und Concertwesens in Hamburg: Vom 14. Jahrhundert bis auf die Gegenwart*. Altona, Leipzig: A.C.Reher.
- Slonimsky, Nicolas, and Theodore Baker. 1958. *Baker's biographical dictionary of musicians: Completely Revised by Nicolas Slonimsky*. 5th ed. New York: Schirmer.
- Suchy, Irene. 1990. "Versunken und vergessen: Zwei österreichische Musikere in Japan vor 1945." In *Mehr als Maschinen für Musik*, edited by Sepp Linhart and Kazutoshi Hasegawa. Vienna: Literas Universitätsverlag.
- Suchy, Irene. 1992. "Deutschsprachige Musiker in Japan vor 1945: Eine Fallstudie eines Kulturtransfers am Beispiel der Rezeption abendländischer Kunstmusik." Doctoral Thesis, University of Vienna.
- Suwa, Haruo. 1999. "The Birth of the Hanamichi: translation and commentary by Samuel L. Leiter." *Theatre Research International* 24 (1): 24–41.
- Suzuki, Hiroyuki, Terunobu Fujimori, and Hara Tokuzō 鈴木博之, 藤森照信, 原徳三. 2009. *Rokumeikan no kenchikuka josaia condoru: Zuroku zōho kaiteiban 「鹿鳴館の建築家ジョサイア・コンドル展」 図録増補改訂版*. Tokyo: Kenchiku gahōsha.
- Takase, Sōta, ed. 高瀬荘太. 1956. *Kyōritsu joshi gakuen nanajū nenshi 共立女子学園七十年史*. Tokyo: Kyōritsu joshi gakuen.
- Tallant, Hugh. 1913. "Acoustic Design in the Hill Memorial Auditorium, University of Michigan." *The Brickbuilder* 22 (8): 113–115.
- Tanimura, Masajirō 谷村政次郎. 2010. *Hibiya Kōen Ongakudō no puroguramu: Nihon suisō gakushi ni kagayaku gungakutai no kiroku 日比谷公園音楽堂のプログラム*. Shohan. Tokyo: Tsukubanesha / Hatsubai Chirekisha.
- "Frank Lloyd Wright and the Imperial Hotel: A Postscript." 1985. *The Art Bulletin* 67 (2): 296–310. doi:10.2307/3050913.

- Thompson, Emily Ann. 2004. *The soundscape of modernity: Architectural acoustics and the culture of listening in America, 1900–1933*. 1st ed. Cambridge: MIT Press.
- Tō bungakukai 塔文学会. 1957. *Tō 塔*. Tō bungakukai.
- Tokita, Alison. 2012. “Takarazuka and the Musical Modan in the Hanshin Region 1914–1942.” In *Rethinking Japanese modernism*, edited by Roy Starrs, 408–427. Leiden and Boston: Global Oriental.
- Tōkyō Firuhāmonī kokyō gakudan, ed. 東京フィルハーモニー交響楽団. 1991. *Tōkyō Firuhāmonī kokyō gakudan 80 nenshi: meiji 44 nen – heisei 3 nen* 東京フィルハーモニー交響楽団八十年史. Tokyo: Tokyo firuhāmonī kōkyō gakudan.
- Tōkyō geijutsu daigaku, ed. 東京芸術大学. 1987. *Tōkyō geijutsu daigaku hyakunenshi: Ensōkaihen dai ikkan* 東京芸術大学百年史演奏会篇第1巻. Tokyo: Ongaku no tomosha.
- Tōkyō geijutsu daigaku ongakugakubu ongaku kenkyū sentā, ed. 東京芸術大学音楽学部音楽研究センター. 1990. *Tōkyō ongaku gakkō: Sōgakudō nenpyō* 東京音楽学校・奏楽堂年表. Tokyo: Nippon kindai ongakukan.
- Tōkyō shinbun shuppan kyoku, ed. 東京新聞出版局. 1987. *Ueno sōgakudō monogatari* 上野奏楽堂物語. Tokyo: Tōkyō shinbun shuppan kyoku.
- Tōkyō-Teikoku-Hoteru. 1990. *The Imperial: The first 100 years*. 1. ed. Tokyo: Toppan.
- Tourist Industry Division, Ministry of Transportation, ed. 1941. *Japan: The Official Guide*. Tokyo: Japan Travel Bureau.
- Tseng, Alice Y. 2008. *The imperial museums of Meiji Japan: Architecture and the art of the nation*. Seattle and London: University of Washington Press.
- Tsukahara, Yasuko 塚原康子. 1993. *Jūkyū seiki no nihon ni okeru seiyō on-gaku no juyō* 十九世紀の日本における西洋音楽の受容. Tokyo: Taga shuppan.
- Ueno, Masaaki. 2013. “The Growth of Western Art Music Appreciation in Osaka during the 1920s.” In *Music, modernity and locality in prewar Japan*, edited by Hugh de Ferranti and Alison Tokita, 75–92. SOAS musicology series. Farnham: Ashgate.
- United States Bureau of Standards. 1926. *Architectural acoustics*. Washington, DC.
- Urach-Württemberg, Albrecht. 1937. “Aus 40 Jahren moderner japanischer Musikentwicklung: August Junker, der Pionier der deutschen Musik in Japan.” *Die Musik, Amtliches Organ der NS-kulturgemeinde* 29 (7).

- Vories, William Merrell. 1918. "An Architectural Triumph." *The Omi Mustard-Seed* 12 (7).
- Vorländer, Michael. 2008. *Auralization: fundamentals of acoustics, modeling, simulation, algorithms and acoustic virtual reality*. 1st ed. Berlin: Springer.
- Waseda daigaku engeki hakubutsukan, ed. 早稲田大学演劇博物館. 2002. *Yomigaeru teikoku gekijō ten* よみがえる帝国劇場展. Tōkyō: Waseda daigaku engeki hakubutsukan.
- Watabe-Gross, Atsuko. 2007. *Die Einführung der europäischen Musik in Japan (1855–1888)*. Mitteilungen der Gesellschaft für Natur- und Völkerkunde Ostasiens, Vol. 145, 1436–0128. Hamburg: Gesellschaft für Natur- und Völkerkunde Ostasiens.
- Watanabe, Hiroshi. 2001. *The architecture of Tōkyō: An architectural history in 571 individual presentations*. Stuttgart and London: Edition Axel Menges.
- Watanabe, Toshio. 1996. "Josiah Conder's Rokumeikan: Architecture and National Representation in Meiji Japan." *Art Journal* 55 (3): 21. doi:10.2307/777762.
- Watanabe, Toshio. 2006. "Japanese Imperial Architecture: From Thomas Roger Smith to Itō Chūta." In *Challenging past and present*, edited by Ellen P. Conant, 240–253. Honolulu: University of Hawai'i Press.
- Watson, Floyd R. 1923. *Acoustics of Buildings*. New York: Jon Wiley and Sons.
- Watson, Floyd R. 1928. "Ideal auditorium acoustics." *Journal of the American Institute of Architects*.
- Weinzierl, Stefan. 2002. *Beethovens Konzerträume: Raumakustik und symphonische Aufführungspraxis an der Schwelle zum modernen Konzerthaus*. Frankfurt am Main: Erwin Bochinsky.
- Wiermann, Barbara. 2018. "musiconn.performance – Musikalische Ereignisdaten im Fachinformationsdienst Musikwissenschaft." In *Kooperative Informationsinfrastrukturen als Chance und Herausforderung*, edited by Achim Bonte and Juliane Rehnolt, 398–415. Berlin and Boston: De Gruyter. doi:10.1515/9783110587524-041.
- Yabushita, Mitsuru, Michihito Terao, and Hidehisa Sekine 藪下満、寺尾道人、関根秀久. 2012. "Mokuzō shibai goya no onkyō tokusei: 3" 木造芝居小屋の音響特性 (3). *AIJ Journal of Technology and Design* 18 (38): 229–232.
- Yamanashi, Makiko. 2012. *A history of the Takarazuka Revue since 1914: Modernity, girls' culture, Japan pop*. Leiden: Brill.

- Yamazaki, Yoshio, and Yasuhiro Kamoda 山崎芳男; 鴨田泰弘. 2006. “Wasedadaigaku satō takeo ni yoru kenchiku onkyō no kenkyū” 早稲田大学・佐藤武夫による建築音響の研究. *Journal of Architecture and Building Science* 121 (1546): 15. Accessed September 24, 2019. <http://old.acoust.ias.sci.waseda.ac.jp/publications/happyou/jabs/jabs-tokita-2006.pdf>.
- Yasuda, Yosuke, Tomoko Yurugi, and Tetsuya Sakuma 安田洋介, 萬木智子, 佐久間哲哉. 2008. “Geometrical acoustic analysis of the old Sogakudo, Tokyo Music School: Changes of the acoustic properties with renovation” 旧東京音楽学校奏楽堂の幾何音響解析: 改修による音響特性の変化. *Summaries of technical papers of the Annual Meeting of the Architectural Institute of Japan*: 397–398.
- Yokota, Shōichirō 横田庄一郎. 2002. *Daiku hajimete monogatari* 第九「初めて」物語. Tōkyō: Sakuhokusha.
- Yokoyama, Fugaku. 1959. “Setagaya Public Hall.” *The Japan Architect, International Edition of Shinken-chiku*, nos. 6–17.
- Yurugi, Tomoko, Yosuke Yasuda, and Tetsuya Sakuma 萬木智子, 安田洋介, 佐久間哲哉. 2008. “Kyū tōkyō ongaku gakkō sōgakudō no kika onkyō kaiseki: Kenchiku teki tokuchō ga onkyō tokusei ni oyobosu eikyō” 旧東京音楽学校奏楽堂の幾何音響解析: 建築的特徴が音響特性に及ぼす影響. *Summaries of technical papers of Annual Meeting Architectural Institute of Japan*: 399–400.
- Yurugi, Tomoko, Yosuke Yasuda, and Tetsuya Sakuma 萬木智子, 安田洋介, 佐久間哲哉. 2009. “Kyū tōkyō ongaku gakkō sōgakudō no onkyō sokutei” 旧東京音楽学校奏楽堂の音響測定. *Summaries of technical papers of Annual Meeting Architectural Institute of Japan*: 329–330.
- Zöllner, Reinhard. 2009. *Geschichte Japans: Von 1800 bis zur Gegenwart*. Vol. 2683. Paderborn: Verlag Ferdinand Schöningh.

In this survey, the development of the public concert life in Tokyo from the beginning of the Meiji Era in 1868 to the end of the Second World War is examined, based on an analysis of performance venues for symphonic concerts. It will be shown that the analysis of the architectural and acoustic conditions of performance and reception of symphonic music contribute to the understanding of the social and cultural conditions of the time. The specific preconditions as well as apparent references to European or American prototypes regarding the performance venues will be identified. This survey intends to document all venues that have been used for symphonic concerts before 1945 in Tokyo, regarding their form, size, capacity and acoustics. For the investigation of the acoustic conditions, a set of room acoustic parameters are employed. Since most of the relevant rooms do not exist anymore in their original condition, CAD models are generated as input for a room acoustics simulation software to derive the room acoustic parameters for the unoccupied and the occupied cases. The size of the orchestras are investigated based on historical sources to describe the relationship of sound source, enclosure and audience.

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