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Architecture and Authority in Japan

William H. Coaldrake



London and New York

The Western Architectural Hierarchy

The Meiji period (1868–1912) was unmistakably and decisively an era of construction. Its 45 years witnessed the construction of a new state, a new society and a new built environment to express its identity and ambitions. It saw the semi-closed military and bureaucratic state of the Tokugawa shogunate replaced with a Westernising nation under a restored imperial authority. This entailed the establishment of new political institutions, a reordering of the political and social hierarchy beginning with the dismantling of the status and privileges of the warrior class, and the putting in place of the political, industrial and economic infrastructure for a modern nation-state defined in Western terms. The Imperial Charter Oath of April 1868, which set out the objectives of the new government, stated, '[all our actions] shall follow the accepted practices of the world. . . . Knowledge shall be sought throughout the world so as to broaden and strengthen the foundations of imperial rule'.¹ Not since the Nara period had Japan embarked upon so ambitious a redefinition of itself in terms of foreign models.

The adoption of Western industrial technology went hand-in-hand with the forging of new social and political institutions. A major slogan of the earlier part of the Meiji period was 'civilization and enlightenment' (*bunmei kaika*), developed by Fukuzawa Yukichi (1834–1901), that great exponent of Westernisation. The slogan was firmly grounded at a practical level in the passage from craft industries to factory-based mass production, and the government was to provide strong guidance in setting detailed objectives for this process and in concentrating capital for major projects.

At the beginning of the new era one of the most urgent tasks facing the Meiji leaders, who were drawn largely from the former samurai class, was the construction of a new built environment for the conduct of the affairs of state and the development of modern industry, commerce and education. The 'accepted practices of the world' meant the creation of Western-style urban plans and buildings, particularly for the newly designated capital city of Tokyo. The old shogunal headquarters of Edo had lost its political rationale with the curtailment of the *sankin kōtai* system in the 1860s and the collapse of the Tokugawa shogunate in 1867. It was reborn as Tokyo, the 'Eastern Capital', with the shogun's castle transformed into the emperor's palace.

Initially the affairs of the new state were conducted from the old daimyo palaces and mansions, with carpet spread over *tatami* floors and chairs and tables standing on them. The Meiji leaders, most of whom were former

samurai of the great outer domains of Satsuma, Tosa, Hizen and Chōshū, or members of the imperial court, and some of whom had already been to the West on fact-finding missions, quickly brushed aside the architectural framework of the old order. The daimyo gatehouses, which had been such important symbols of authority and status under the Tokugawa, made way for fences of wrought iron, stone and brick, although some, like the Rōjūmon, were more reluctant to go than others. The Western-style buildings of powerful new government ministries and the burgeoning commercial empire of Mitsubishi lined the broad gas-lit avenues in the heart of Tokyo. Together with public facilities like post offices and railway stations, they became the new architecture of authority. Gracious buildings of stone or brick presented to the world the new imperial and commercial order. Their uncompromising vertical façades and strictly symmetrical wings proclaimed their importance with an architectural vocabulary of Greek columns and Renaissance-inspired porticos and pediments. Soon the sounds of the locomotive were to punctuate the deliberations of the busy bureaucrats and entrepreneurs, signalling that the transportation revolution was gathering momentum.

Not since the eighth century had there been so concerted a national effort to redefine the image Japan displayed to the world. This period also shares with the Nara period an extraordinary level of government commitment to architecture as a means of defining identity and achieving official goals. The driving force in the transfer of Western architectural styles and engineering technology to the new state was the authority of the government and the growing power of the commercial and industrial sector.

The primary motivation for the Meiji programmes of Westernisation was survival against encroachment of foreign powers, followed by international recognition and acceptance as a modern nation. The urgency and energy with which building ventures of the new state were undertaken showed a thorough appreciation of the implications for Japan of the fate of China at the hands of Britain, France, Germany, Russia and the United States. The struggle between the shogunal and imperial restoration factions had intensified when the shogunate displayed apparent weakness in 1853 by granting unlimited foreign access to the ports of Nagasaki, Kobe, Shimoda, Yokohama and Hakodate in the manner of the Chinese foreign concessions. The decimation of Satsuma defences at Kagoshima by a British naval squadron in 1863 delivered a stern warning of Japan's military vulnerability to the West. It was clear that Japan had to become an economic and military power with the institutions and trappings of Western civilization if it were to survive in the international order of the later nineteenth century.

Japan may have entered the industrial age belatedly, but wasted no time in pursuing the new goals of Western-style progress. The Industrial Revolution and the Economic Revolution, which had taken more than a century of evolution in Europe and America, were telescoped into half that time in Japan. This created an explosive demand for buildings to house the new forms of government, commerce, industry and education. Architecture became an essential tool of state for convincing the flood of foreign visitors entering Japan of its reincarnation as an urban and urbane civilization. Architecture was charged with a mission of the highest national significance: proclaiming

loudly on every city block and street corner Japan's assurance and authority as a modern state.

The New Hierarchy of Architectural Authority

It is tempting to dismiss summarily Western-style Meiji architecture because its form seems so familiar to us. If we are to apprehend fully its significance in the definition of Meiji authority we should not think of these buildings as simply imitative or derivative. The Japanese architectural achievement of Meiji deserves due recognition because, in the context of place and time, it was nothing short of remarkable. After the first halting steps Meiji architecture was neither quaint in style nor inept in execution. It was authoritative as architecture and architectonic as authority.

Japanese government ministries and banks, railway stations and factories, schools and churches, libraries and hospitals, were as convincing in their formal attributes as any buildings of similar purpose in Europe or America. The Japanese had already mastered the architectural vocabulary of classical revival by the time they had spelled out their new governmental order in the constitution of 1889; before the ink had dried on the Imperial Rescript on Education of 1890 Japanese primary school students throughout the nation were engaged in the joys of inscribing their names into Western-style lift-top desks in 28,000 timber-floored schools with sash-windows and hinged doors. So effective are these buildings as models of Western-style architecture that, after spending only a few minutes inside, it is easy to forget that one is actually in Japan.

The new architecture undoubtedly had a dramatic impact upon the way people thought and felt about their relationship to the state and its new organs of government, the conduct of their daily lives and perhaps ultimately about themselves. Western-style homes may have still been confined to the residences of the elite by the early twentieth century, but for most Japanese, Western architectural forms had become an inescapable daily reality. *Tatami* mat floors may not have surrendered to carpet in the majority of Japanese homes until a generation after World War II, but from the 1870s, the social and behavioural consequences of architectural Westernisation were experienced from the moment a citizen had dealings with a local municipal hall or post office, primary school or bank, or travelled on the new steam locomotives.

Meiji architecture poses a special challenge when it comes to the selection of representative examples for analysis of authority. More buildings survive than from earlier periods in history by virtue of their temporal proximity to our own age and the use of more fire-resistant building materials. There has also been active preservation of Meiji buildings, including the creation of the vast outdoor museum of Meiji Village near Inuyama, because the Japanese have formed a special, almost sentimental, attachment to early Western architecture in Japan, identifying the exotic forms with the foundation of their modern state and persona. With Meiji we also enter the age of the photograph and the Western architectural blueprint which make it much easier to reconstruct the appearance of destroyed buildings.

The selection process is further complicated by the varied character of Meiji architecture. This may be due in part to the confusion arising in any great era of rapid change, but equally it reflects the complex technological and stylistic developments in construction and architecture taking place in nineteenth-century Europe and America. This was a period of remarkable technological invention arising from the advances of the industrial revolution, particularly in iron- and steel-frame engineering, which culminated in the construction of the epoch-making tower by Gustave Eiffel for the Paris Exhibition of 1889. This was also an era which was prey to an uneasy ebb and flow of enthusiasm for reviving the great architectural styles of classical antiquity and the middle ages in the light of contemporary fashion, technology and political needs. Classical columns and pediments, as used by Alberti and Sangallo, Michelangelo and Palladio during the Renaissance, enjoyed virtually unchallenged dominance as the international style of architecture until the middle decades of the nineteenth century when the grandeur of the Gothic style of the middle ages was rediscovered. In Britain, church-like buildings with pointed arches and lancet windows became the secular architectural vocabulary for law courts and municipal chambers, museums and railway stations.² The Gothic style, as revived in Britain by Scott and Burges and extolled by Ruskin, was challenged on the European continent and in America by another wave of classical revivalism. The renewed confidence of 'Second Empire' France under Napoleon III and of a Germany unified under Bismarck found architectural expression in a new international style of the Baroque idiom. It had heavily ornamented Greek temple façades set against the new fashion of ambitiously angled mansard roofs capped with cupolas and an occasional ribbed dome. The interiors of these buildings had a Rococo frivolity with gilded arabesques and other surface flamboyance given greater effect by dramatic placement of windows and mirrors.³ In the United States a more pristine Neo-Classicism, which came into vogue as a result of the World Columbian Exposition held in Chicago in 1893, exploited the forms of classical antiquity to claim that America was replacing Europe as the new frontier of Western civilization.

The confusion and complexity of architectural styles in the West paralleled confusion and complexity in the nature of authority. In the same way as the Japanese who became architects were exposed to the ferment of style and counter-style, the Japanese who became Meiji political leaders were exposed during their energetic foreign travel and studies to the nineteenth-century ferment of ideas about the nature and workings of the modern nation-state. These ideas ranged from constitutional monarchy in Britain to monarchical absolutism in Prussia, and from the liberalism which inspired the 1830 and 1848 revolutions in Europe to the ideology of entrepreneurial capitalism in the post-Civil War United States.

It is not surprising then, that Meiji architecture reflects the complexity of the contemporary architectural scene in Europe and America, but in the context of our discussion of authority in Japan the sometimes confusing assemblage of styles and materials takes on a logical hierarchy corresponding to the hierarchy of the state. For this chapter a building representing each level in this hierarchy has been selected for detailed examination to identify

the architectural and political character of the new Western order. Stone was reserved for buildings of paramount importance to the state, most notably the Akasaka Detached Palace, where it was used in conjunction with a Neo-Baroque façade. In the next category, slightly lower in status, were the red-brick buildings with steel or timber frames and Gothic or Classical details, the supreme example being the Tokyo Station building. Below this category of red-brick construction were the timber-frame weatherboard buildings. They were the most numerous of all Meiji Western-style buildings, cheaper and easier to construct than brick structures. It was this type of architecture, with numerous variations on the Classical and Baroque themes, which served as the official architecture of the Ministry of Education. It is exemplified by the Sōgakudō, the first school of Western music. Finally, the restoration rebuilding of our old friend the Great Buddha Hall of Tōdaiji affords special insights into the authority of tradition in the overtly Westernising age. Each of these building types addressed a particular political need and each will be discussed in turn, starting at the pinnacle of hierarchy.

The Akasaka Detached Palace: Architecture Exceeding its Authority

The Akasaka Detached Palace was built in the last decades of the Meiji period, allowing us to assess Japanese success in achieving their goal of Westernising the official state environment (Figure 9.1). The palace has become well known internationally since its refurbishment in 1968–1974 as the Geihinkan, or State Guesthouse. Its marble entrance portico has provided a dignified backdrop for welcoming speeches by visiting heads of state, while its sumptuous interior, bedecked in crystal chandeliers and gilded arabesques, has served as the setting for summit meetings of the great powers.

Fig 9.1
Akasaka
Detached
Palace, Tokyo.
Oblique view
of front façade.
(Courtesy:
Geihinkan and
Masuda
Akihisa)



The palace was never intended for this role. It was abandoned by its government almost at its birth. It had been built to serve as the official residence of the Crown Prince. The idea for an 'East Imperial Palace' (Tōgū Goshō) as the official palace of the Crown Prince first took root in 1893, as the reign of the Meiji emperor moved towards its thirtieth year. A planning committee was formed in 1896 consisting of government officials, mostly from the Imperial Household Ministry (Kunaishō), together with architectural specialists. Design work started two years afterwards, and construction was completed eleven years later in June 1909.⁴ Prior to completion its name was officially changed to the 'Akasaka Detached Palace' (Akasaka Rikyū) by the Imperial Household Ministry.

From the political point of view the motivation for the creation of the Akasaka Detached Palace was eminently practical. As the accession of the Crown Prince Yoshihito to the throne became more imminent, it became imperative to promote the importance of the next emperor. What better way to achieve this than by the construction of an impressive new palace? The Akasaka Palace was, therefore, conceived as an architectural tool for strengthening the authority of the imperial institution beyond the death of the incumbent emperor. It was to be one of two buildings designed to bolster the Crown Prince's authority with an emphatic architectural presence in Tokyo. The second of these buildings, completed in 1909 just prior to the Akasaka Palace, was the Hyōkeikan, a Neo-Baroque hall crowned by a great copper dome which is now the Archaeological Wing of the Tokyo National Museum at Ueno. It was officially a 'gift' from the people of Tokyo to commemorate the wedding of the Crown Prince, paid for in part by public subscription, thereby heightening public involvement with and loyalty to the next emperor and his new consort.⁵

Today, as we look at the magnificent masonry edifice at Moto-Akasaka from the old parapets of the outer moat of Edo castle at Yotsuya, there can be no doubt that the design and construction were eminently suitable for its political purpose. The new palace was surrounded by an aura of national euphoria at the attainment of the objectives of the Meiji Restoration. It exudes the vaunting pride of a modern nation-state enjoying the success of the far-reaching process of Westernisation which had born fruit with its recognition as a great power by Britain in the Anglo-Japanese Alliance of 1902 and in its success in vanquishing the forces of Czarist Russia in 1905. The building has a powerful, immovable presence as it sits seemingly oblivious to the crowded city surrounding it amidst four square kilometres of carefully landscaped gardens in the best French aristocratic tradition, complete with manicured lawns and formal flower-beds bordered by neat border hedges. The site had previously been that of one of the mansions of the daimyo of Kii, a collateral family of the Tokugawa but, like so much of the Tokugawa and other daimyo land in Edo, was appropriated by the Meiji state following the Restoration.

The palace building itself is unashamedly Neo-Baroque, emulating the decorative exuberance of Versailles while fastidiously observing the axial symmetry of nineteenth-century German palaces such as the Neue Hofburg (1894) in Vienna (Figure 9.2). It rises two stories in height to a discrete copper-tiled

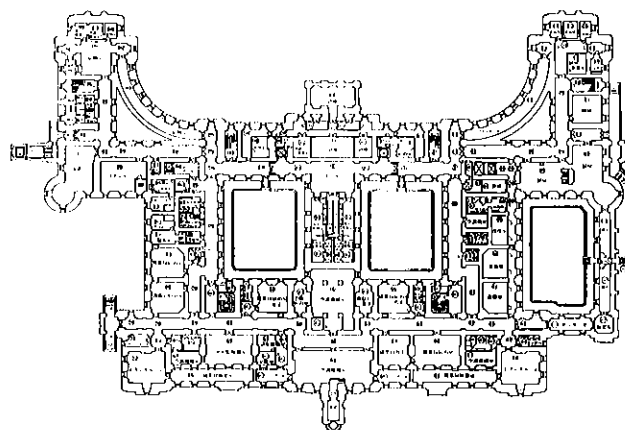


Fig 9.2
Akasaka
Detached
Palace, Tokyo.
Plans of
basement
(above),
first (centre)
and second
floors (below)
(after
restoration)
(Source:
Geihinkan
(ed.)
*Geihinkan
Moto-Akasaka
Rikyū kaishū
riryoku*)

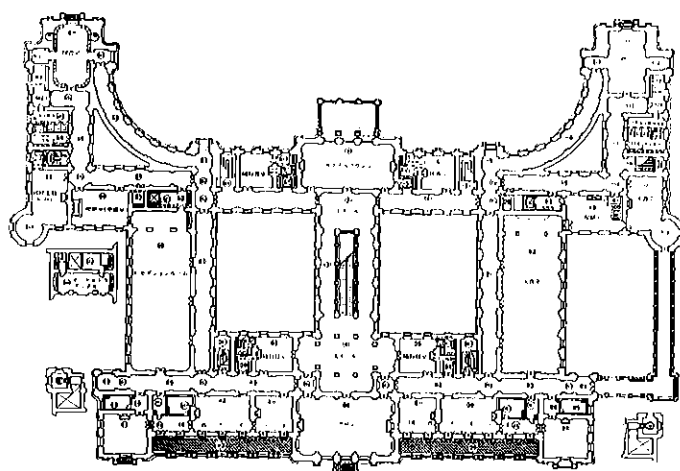
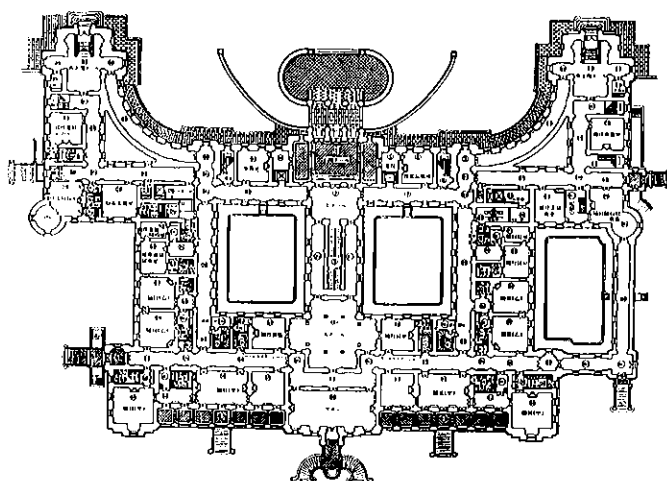


Fig 9.3
Akasaka
Detached
Palace, Tokyo.
Detail of inte-
rior showing
the grand
stairway
leading to the
second floor
(Courtesy:
Geihinkan and
Masuda
Akihisa)

roof. The central structure pays homage to Classical Greece, with the pillars and triangular pediment of the archetypal Greek temple. Its two wings spread out on each side, reaching forward at the ends in a graceful arc. The granite walls and lines of pedimented windows are a model of order and symmetrical balance. It is this same sense of order and balance which permeates the official architecture of the Meiji period, from its palaces to post offices. It is reminiscent of the way that the Nara state turned to symmetrical planning to express its notions of order and authority.

Within the palace, the staterooms, the grand ballroom on the second floor, and the private suites intended for the Crown Prince and Princess in the opposing wings, are all fluent, self-indulgent Rococo in style, with gold highlighting the Corinthian capitals on marble columns, the arabesque carvings on the walls and the plaster mouldings on the vaulted ceilings. The floors, altogether 15,000 square metres in surface area, vary from marbled mosaic and burgundy carpet along the corridors and in the entrance area to precisely crafted, highly polished parquet in the main chambers.

The palace was a remarkable technical achievement as well as a decorative *tour de force*. Electricity replaced gas-light, with clusters of electric lights illuminating the pillars of the entrance portico and the great marble staircase leading to the second floor (Figure 9.3). In addition to electricity, the palace also had hot and cold running water, central heating and air conditioning,

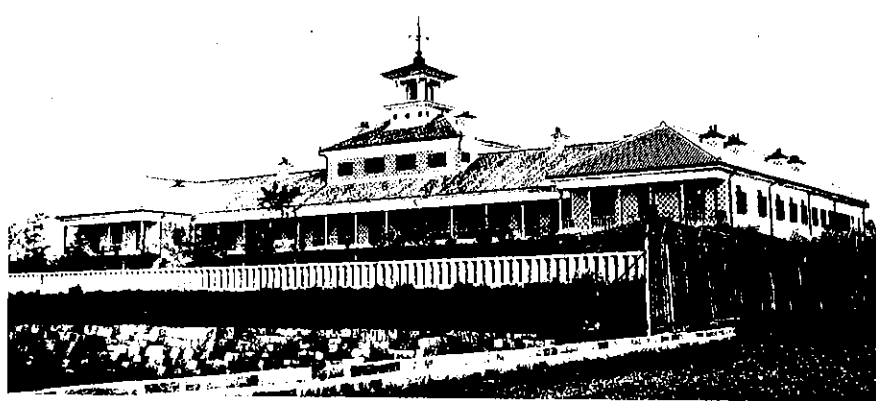
although initially possessing only one bathroom. Presumably this was a design oversight rather than an indication that the Japanese had adopted the contemporary bathing habits of the European aristocracy along with their architectural styles.

Building the Akasaka Detached Palace: Architects and the Meiji State

It was a singular achievement that a building of such essential 'foreignness' was constructed little over one generation after the first tentative attempts at Western-style building in Japan. The achievement is all the more striking when it is compared with the first attempt by the Meiji government to build an official guesthouse for foreign visitors 40 years earlier. The Tsukiji Hotel, constructed in the centre of Tokyo near the Sumida River in 1868, was a curious yet predictably eclectic building (Figure 9.4). It employed traditional Japanese timber-frame construction to imitate the Western-style buildings which by then graced the Treaty Ports of Yokohama and Kobe. The conventional Japanese tiled roof was surmounted by a Western-style belvedere, complete with wrought-iron weather-vane. The walls were covered with terracotta tiles, a feature used to protect buildings against fire in the Edo period but which did not save the Tsukiji Hotel from a fire in 1872 which reduced its modest Westernising pretensions to ashes.

By the turn of the century the Japanese were able to achieve such dramatic improvements in the quality of their Western-style buildings, as demonstrated by the Akasaka Palace, largely because of the success of the policy of employing foreign experts (*oyatoi*). During the Meiji period some 3,000 specialists in many fields from Europe and the United States came to Japan at the invitation of the government to provide the Meiji state with knowledge and guidance in government and law, finance, investment, the army and navy, science and technology, industry and commerce, learning and culture. By far the greatest number of *oyatoi* were associated with the Ministry of Construction and were specialists in the fields of engineering and architecture, itself an indication of

Fig 9.4
Tsukiji Hotel,
Tokyo
(Source: *The
Far East*,
1872)



the importance of building to the state.⁶ They planned and supervised the major projects in the first two decades of the modern transformation of Japan, and bequeathed their skills to the first generation of Japanese experts in architecture, engineering and urban planning.

The Akasaka Palace was the fruit of this process. It was designed using technical drawings in the Western manner. Its construction was directed by Katayama Tōkuma, the official architect for the Imperial Building Bureau (Naishōryō) of the Imperial Household Ministry and one of the first Japanese to be trained in Western architectural practice at the Kōbu Daigakkō, the Imperial College of Engineering, predecessor of the Faculty of Engineering of the modern University of Tokyo.

The programme at the Imperial College of Engineering was established by Josiah Conder, a young British architect who had arrived in Japan at government invitation in 1877. With Conder's arrival we encounter one of the least visible but most far-reaching of changes to Japanese architecture in the Meiji period, namely the adoption of Western design practice. Government policy was to establish in Japan the profession of 'architect', as defined in contemporary Europe and America, in order to take charge of the building of Western-style buildings. The logic seemed impeccable: Western-style architects were needed to make Western-style buildings. However, the architects of nineteenth-century Europe and America were the product of the Renaissance tradition of the artist who designed, rather than the builder who built, a separation still affecting architectural practice today. This offered scope for individual artistic expression in architecture as an art, but also seriously weakened the traditional building professions, particularly the top level of master builders because they lost their design prerogatives, and along with this, their prestige and on-site power. This was to become a particularly serious problem in Japan, with its strong tradition of architectural attainment by the master carpenter.

Josiah Conder was the seminal influence on the practice of Western-style architecture in Meiji Japan, establishing a course at university level on European architectural styles along with providing practical training in Western drafting techniques.⁷ He changed the initial Japanese emphasis on utilitarian engineering to doctrinaire architectural ideology as well as design practice.

At that time, matters architectural were being argued in Europe and America with a vehemence rivalling the theological controversies of medieval Christendom. This ensured the informed attention of politicians and the public alike to the details of new buildings. National as well as individual prestige was at stake, with John Ruskin and William Burges ascribing the highest nobility and civic virtue to the Gothic style at the same time as it drew the scorn of Henry Van Brunt, apologist for the Columbian Exposition. From his committed classical and New World position he scornfully dismissed Burges' life and work as nothing but 'a beautiful early Gothic masquerade'.⁸

To understand Conder's own design predilections is to understand much of the stylistic nuance of Western architecture in Meiji Japan. After training at the University of London, in 1875 Conder had entered the architectural

firm of none other than William Burges, champion of the Gothic Revival in England. The next year Conder won the prestigious Soane Prize, awarded by the Royal Institute of British Architects for the most distinguished entry in an annual design competition.⁹ The Meiji government probably selected Conder to establish Western architectural training in Japan because of the award of the Soane Prize. For a young architect like Conder, the Japanese offered considerably more scope for carrying out his own more classically orientated work than did the prospect of remaining in England as part of Burges' Gothic Revival firm.

Conder was only 25 years of age when he arrived in Japan and was to remain there for the rest of his professional life. His principal works were to include the completion of the epoch-making Rokumeikan in 1883, a Western-style club for interaction in a Western manner between the Japanese elite and their foreign associates in government, business and high society. Although the Rokumeikan does not survive, contemporary photographs reveal that it had the symmetrical façade with arcades of rounded arches set on Classical columns inspired by Palladio's revival of the Ancient, as well as the more pronounced hipped gambrel roofs over the central structure typical of the French Second Empire style.¹⁰

Katayama Tōkuma was a student in Conder's first class at the nascent Imperial College of Engineering. After gaining experience as an assistant for some of Conder's architectural commissions for the Meiji government, he embarked upon his own architectural career which was to be based on a close association with the most influential circles of Meiji government. Japanese Western-trained architects came to occupy a place of privilege in the Meiji establishment because of the political significance of the service they provided. At the same time, patronage by powerful members of the ruling elite was essential for the success of architects in gaining major public commissions. This symbiosis between architect and state is a universal phenomenon. It would be impossible, for instance, to imagine the great architectural and artistic outpourings of the Italian Renaissance without the patronage of individual architects by the Roman Papacy or by the mercantile houses of Florence.¹¹ If patronage forms the crucial link between architects and authority, for Katayama it was the patronage of Yamagata Aritomo which guaranteed the commission for the Akasaka Palace. Yamagata was a dominating force in the Meiji-period government, serving as Home Minister, two terms as Prime Minister, and at the end of his career, as president of the Privy Council (1909–1922).¹² Yamagata's support therefore ensured Katayama's placement at the heart of the imperial bureaucracy, a support which he enjoyed in part because both came from Chōshū. Loyalty between former samurai from the outer domains of Chōshū, Satsuma, Tōsa and Hizen of the Tokugawa system is an abiding characteristic of Meiji government.

After initial training with Conder, Katayama visited Europe in 1882 for a period of seven months to make a special study of palace architecture.¹³ In 1886 he was appointed to the team working on the Imperial Palace building project, an eclectic Japanese-Western style building, eventually destroyed by bombing in World War II. Katayama had particular responsibility for the inte-

rior design, spending eleven months in Germany studying the interior decoration and furnishings of palaces. After the completion of the Imperial Palace project in 1887, Katayama remained in the service of the Imperial Household Ministry and was promoted to supervisor of the newly formed Imperial Building Bureau. From this position he was to direct a team of talented technical experts in constructing such important architectural milestones of the Meiji state as the Japanese Red Cross Central Hospital (1890), the Nara Imperial Museum (1894), and the Kyoto Imperial Museum (1895). Not surprisingly, he was also responsible for the official residence of his political mentor Yamagata in 1891.

The Akasaka Palace was to be Katayama's largest and most important project. From the inception of the project in 1896 he was made a member of the planning committee. He spent the following year once again in Europe, studying palace architecture while completing the basic drawings for the Akasaka project. In 1898 a new Bureau for the Construction of the Eastern Palace (*Tōgū gosho gozōei kyoku*) was created to manage the project, and Katayama was placed in charge of the design and construction as *gikan*, a title best translated here as 'Chief Architect'.¹⁴ This promotion coincided with the apogee of Yamagata's own power, as he assumed office as Prime Minister for the second time on 5 November 1898.

Beyond Foreign Models

Katayama coordinated the technical work of a veritable army of architectural draughtsmen, engineers and specially organised groups of craftsmen skilled in making the intricate details of carvings and mouldings essential for each room. He made two further trips to Europe and the United States to investigate the technical aspects of central heating and air conditioning, and to finalise details of interior decoration. He also purchased antique French and German furniture for each chamber.

The use of steel framing for the building was a technological breakthrough. In the United States Katayama consulted specialists in newly developed steel framing techniques, including Edward Shankland, who had developed the steel framing of the Manufacturing Building, the largest building of the 1893 Columbian World Exposition.¹⁵ He also arranged the export to Japan of the 3,000 tonnes of steel framing needed for the project from the Carnegie Works at Pittsburgh, and for the despatch of two American engineers to assist in its erection on site.

The long-accepted interpretation in both Japanese and Western architectural circles of the structural system used for the Akasaka Palace is that the walls were made of brick, which was then faced with stone and clipped onto a steel framework to give them resilience against earthquake. In other words the conventional wisdom has it that the building is something of a carefully engineered architectural pretense of a masonry structure.¹⁶ This interpretation assumes that the palace was built using the same structural system that had been employed for the main building of the Bank of Japan, constructed between 1890 and 1896. Some brick may have been used for subsidiary parts of the Akasaka Palace and there is no denying the reliance on a great deal

of imported steel. However, Katayama's own technical explanation of the building, given in a long interview with the *Nihon shinbun* on 17 May 1907 after the main construction work on the palace had been completed, reveals a very different structural logic to the building:

Strictly speaking, steel-frame structures are a pure American system but here at the Akasaka Palace it is to a large extent very different in the composition of the components. What I mean by this is that in the United States the steel framing performs the principal [structural] role [in a building] and the stone is little more than a [non-structural] wall attached to it on the outside. But here at the Akasaka Palace the stone itself has been made the main structure of the building and the steel framing is used only to strengthen the weak parts of the stone [at the interfaces]. As a result it is not unusual for parts of the wall to be as much as 9 *shaku* (2.73 metres) thick. . . . We were aware from studying recent cases of earthquakes [in Japan] . . . that, although steel frame structures had been used, these were not really safe and caused a lot of problems. At the Bureau for the Construction of the Eastern Palace we therefore thoroughly considered this defect in the American system [of steel framing] and have been careful to give thorough consideration [to solving the problem].¹⁷

The use of structural steel in Japan in the 1890s was the first occasion on which this new engineering technology had been employed in an earthquake-prone region. Although Sir Henry Bessemer had invented a method for producing steel for large-scale buildings as early as 1855, Hitchcock notes that 'the full architectural possibilities of the use of structural steel were hard to grasp before the nineties'.¹⁸ The transfer of this technology to Japan stimulated developments to improve its aseismic potential. The existing method for its use was neither rigid enough to withstand earthquake shocks, nor flexible enough to vibrate and absorb the seismic energy. Steel-frame structures built in Japan using the American technology before 1907 had been caught in this danger zone between rigidity and flexibility, and as Katayama himself noted in the interview, for the Akasaka Palace it was necessary to devise a new system of steel-reinforced masonry capable of sustaining high wall loading from earthquakes. It is a matter of historical record that the Akasaka Palace was to survive without damage the devastating force of the Great Kantō Earthquake of 1923, which registered 7.9 on the open-ended Richter scale.

In addition to its technical innovations in seismic engineering, it is the consummate mastery of interior detail which distinguishes the Akasaka Palace from other Meiji Western-style buildings. It is the best example of official Meiji architecture because the interior detail is so fully developed. Other buildings had impressive exteriors but their interiors were much less complete and impressive. For example, the interior of the Hōheikan, built in 1880 under the supervision of an American, Louis Boenmer, as a hotel and official guest-house for the Hokkaidō Colonisation Commission (*Kaitakushi*) in Sapporo, was a competent timber-frame weatherboard building, which from the outside could easily be mistaken for the residence of a wealthy Massachusetts family of the same era. Inside, however, the walls and ceilings are quite stark in appearance, with decoration confined to half columns and plaster mouldings at the anchor points for the chandeliers.



The Akasaka Palace displays complete mastery of the idioms of the European palace interior but goes an important stage further in adapting these to Japanese stately requirements. Aided by traditional Japanese craftsmen who had carefully studied European decorative techniques, Katayama did not merely reproduce the grand style of European Baroque and Rococo. He added to it his own Japanese motifs and subject matter. African lions of British empire pedigree may prowl the ceiling apses of the ballroom, but one lion sits contentedly beneath a suit of samurai armour. The oil paintings which are set into the polished cypress-wood panels of the state dining room are variations of the birds and flowers themes used so effectively by the Kano painters for Nijō Castle (Figure 9.5). There are even profusely blossoming peonies which offer a Japanese complement to antique French furniture. The more one understands of the Akasaka project, the more one is reminded not of European palaces but of the great palace projects of Japanese history. The Akasaka Palace is heir to the same tradition as the Daigokuden of Nara and the Palace of the Second Compound of Nijō Castle. Its creation exhibits the same competence at organising architectural projects for state purposes, and its completed form the same attention to the theatre of government in the hierarchy of spatial transition and decorative programmes.

Fig 9.5
Akasaka
Detached
Palace. Detail
of the State
Dining Room
(Courtesy:
Geihinkan and
Masuda
Akihisa)

Authority Exceeded

The Akasaka Palace was, therefore, an exuberant expression of late Meiji-period imperial authority and self-confidence, earning Katayama the acclaim of his architectural peers.¹⁹ Ironically, the very success of the building as palace architecture called into question its suitability as a residence for the Crown Prince. As early as 1902, when the original budget estimate of 2.5 million *yen* was revised to double this figure, it was deemed too costly and ostentatious for its avowed purpose by the emperor himself. After an audience with the emperor, the Minister for the Imperial Household Tanaka Mitsuaki, issued the following instructions to the Imperial Building Bureau:

The construction and ornamentation of the Palace should be appropriate to the status [of the Crown Prince]. However, it is essential to concentrate exclusively on simplicity and sturdiness and to avoid ostentation in order to conform to the emperor's wishes. His Majesty has refused to authorise any increase in the construction budget and has given strict orders that henceforth no further requests will be entertained.²⁰

This is an extraordinarily blunt statement in the generally restrained official records of the Meiji emperor. The phrasing of these objections has a familiar ring to it, recalling the efforts of the Tokugawa shogunate to curb architectural extravagance by the daimyo in order to maintain the correspondence between architectural form and status in their political order. Whatever the reality of contemporary European palaces which the Akasaka Detached Palace so competently reflects, the inference in the official imperial records is that it was too grand for its purpose. When finished, at just slightly more than the 5 million *yen* authorised by the emperor in 1902, the new building became an acute embarrassment at the highest levels of state. It was not politic to permit the Crown Prince to reside in his new palace as long as the Meiji Emperor lived, and once Yoshihito ascended his father's throne he was obliged to reside in the Imperial Palace. Katayama's palace stood unoccupied from the time of its completion in 1909. It was not until the summer of 1917 that it was used for official purposes when it provided the grand setting for a state banquet in honour of the Korean Crown Prince. The Akasaka Detached Palace is a fascinating illustration of architecture exceeding its authority.

Tokyo Station: Temple to Progress and Empire

The construction of the Central Station in Tokyo (*Chūō teishajō*), or Tokyo Station (*Tōkyō eki*) as it is now universally known, coincided with the building of the Akasaka Palace. However it was to prove a more pervasive and powerful demonstration of the authority of the late Meiji state than was the Palace because of the particular national and international circumstances prevailing at the time of its construction.²¹

There was to be no crisis of authority with this late Meiji building, conceived in 1898 but not completed until 1914, two years after the Meiji period had

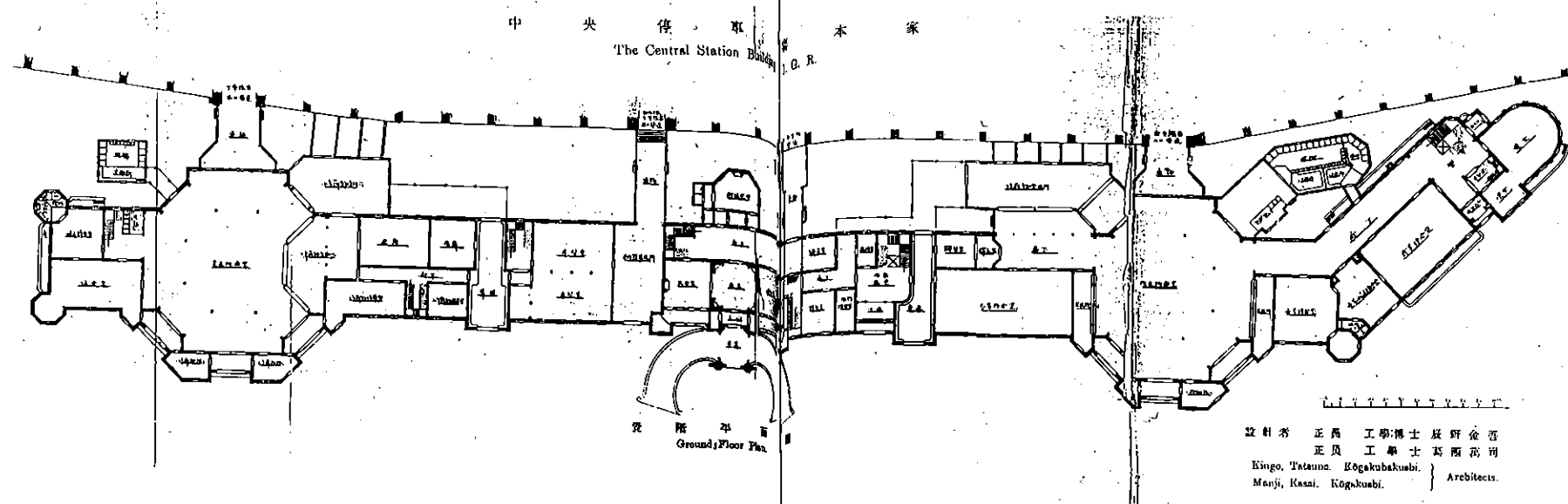


ended. Tokyo Station was to become no less than a temple to progress and a monument to empire (Figure 9.6). It paid homage to the power of rail in the development of the state through its mastery of Western transportation technology and civil engineering. The main building, with its grand scale and warm red-brick walls held together securely by steel framing, became the visible and functioning focus of a growing empire of communication, capitalism and colonialism, reminiscent of the role of Tōdaiji at the centre of the Nara *kokubunji* system over eleven centuries earlier. The steel tracks which radiated from Tokyo were soon to connect the length and breadth of the main Japanese islands in a vast and efficient transportation network and, via steamship at Moji at Shimonoseki, to Pusan in Korea, with the growing sphere of influence on the Asian mainland. By the 1920s passengers could purchase return tickets at Tokyo Station to twenty-five destinations in China, including Beijing.²²

When completed in 1914, Tokyo Station occupied an area of approximately 19,800 square metres, including the station building on the Marunouchi or west side, four large platforms and multiple tracks, and the freight yards on the Yaesu or east side (Figure 9.7). The station opened onto a wide plaza almost as large as the area occupied by the actual station building and its railway tracks. This was to be the focus for the development of a Western-style commercial district in the later 1920s. The station building itself had a north-south frontage of some 350 metres in length, and the tracks, platforms and freight facilities extended eastwards over 100 metres. The domes at the north and south entrances each had an ambitious span of 36 metres. Tokyo

Fig 9.6
Tokyo Station
and
Marunouchi
Plaza ca 1926
(Courtesy:
Transportation
Museum,
Tokyo)

Fig 9.7
Tokyo Station.
Plan by
Tatsuno Kingo
(Source:
*Kenchiku
zasshi*, no.
286, 1900)



Station was thus executed on the same grand scale as London's St Pancras Station and Washington's Union Station. Its construction coincided with that of Washington's Union Station, completed in 1908, Melbourne's Flinders Street Station, finished in 1910, and New York's Grand Central Station, completed in 1913. Tokyo Station therefore was built in an international context of railways and their capital-city stations as an expression of national confidence, as a part of a strategy of centralising state power and as a demonstration of national mastery of advanced building technologies.

The importance of Tokyo Station has been underestimated as a work of architecture and as witness to the political, technological and artistic imperatives of the late Meiji and early Taishō periods. Until recently it was overshadowed by other buildings in histories of late nineteenth- or early twentieth-century architecture. Subsequent changes to imperial authority and the plans of Marunouchi have diminished its once powerful political and planning role at the centre of Tokyo. As a railway station it was relegated to secondary transportation significance by Shinjuku and Ueno Stations. As a work of architectural design its carefully calculated proportions were grossly disfigured by war-time bombing and subsequent clumsy postwar repairs (Figure 9.8), leading to the mistaken impression that its design was based on that of the central railway station in Amsterdam.²³ By the mid-1980s there were plans to demolish the original Meiji building and replace it with a more 'cost-effective' structure. A vigorous preservation campaign ensured its survival and new Shinkansen lines have since re-established its importance as a transportation hub.

Tokyo Station and Imperial Authority

Tokyo Station was built against a background of growing Japanese competence in transportation technologies, the increasing importance of transportation to

the centralisation of state power, and the international context of railways and capital-city stations as the expression of national confidence and authority. These were years in which the authority of the Japanese state matured and was projected into the international sphere with the expansion of its economic, political and military interests on the Asian continent. The central role of Tokyo Station in nation and state was accentuated by its role as the emperor's own station, from which he embarked on state visits. The main entrance faced the Imperial Palace across the moat, and at the heart of the station complex were the grand portico and reception rooms for the emperor and members of the imperial family (Figure 9.9). The architectural design paid unequivocal homage to the authority of the imperial institution, with the design focused on the central Imperial Entrance with its emphatic portico and flowing Neo-Baroque pediment. The reservation of the most impressive and central entrance for the exclusive use of the imperial family is a familiar strategy in the use of architecture to enhance authority. The gateways of the Imperial Palace in Kyoto and the *onari* gateways of Edo derived much of their effectiveness as symbols of authority by the exclusiveness of their entry. Exclusion and exclusiveness is also the basis for the special sense of place created at the inner precincts of the shrines at Ise.

Tokyo Station was to serve as the visual centrepiece of the business and administrative district of the city of Tokyo, the area now known as Marunouchi. In so doing it emphasised the relationship between the Imperial Palace and the emerging status of Japan. The district in front of the Imperial Palace, where many of the daimyo palaces had been located in the Edo period, was destroyed by a disastrous fire in 1872. It remained a burnt-out wasteland until purchased in its entirety by Iwasaki Yanosuke, son of the founder of the powerful Mitsubishi commercial firm. In 1893 Iwasaki consolidated Mitsubishi into an even more powerful financial empire, and undertook the

Fig 9.8
Tokyo Station.
Building after
bombing in
1945 (above)
and after post-
war repairs
(below)
(Courtesy:
Mishima Fujio
and Nagata
Hiroshi,
*Tetsudō to
machi Tōkyō*.)



redevelopment of this area as the centre of its corporate power. Josiah Conder was placed in charge of constructing the new Mitsubishi buildings. In collaboration with one of his former students, Sone Tatsuzō, Conder designed a series of three-storey red-brick buildings along the spacious avenues in conscious emulation of the financial district in contemporary London. Starting with Mitsubishi Number One Building in 1894, 13 more buildings of the same style were to be built there in the course of the next 17 years.²⁴

Tokyo Station was situated at the end of the grand avenue, 70 metres wide, which cut through the new Marunouchi district to the palace moat plaza.²⁵ At the completion of Tokyo Station an axis of authority had been created through the heart of central Tokyo, running from Sakashita Gatehouse of the palace to the emperor's entrance at the station, a distance of 900 metres. The pomp and circumstance of the emperor processing in horse-drawn carriage down the central boulevard of the city to be received by officials at the station invested the buildings in the public mind with a close association with the authority of the emperor. The greatest of these spectacles were the grand processions accompanying the imperial departure and return on the occasion of the enthronement of the Taishō and Shōwa emperors at the Imperial Palace



Fig 9.9
Tokyo Station.
Central Hall
and Imperial
Entrance

in Kyoto (Figures 9.10–9.12). The processional boulevard leading to Tokyo Station itself reflected the dramatic vista-planning in contemporary European cities – notably Baron Haussmann's Paris of the Second Empire – but it also recalled Suzaku Avenue in imperial Nara which bisected the city from the Rajōmon in the south to the Suzakumon at the entrance to the Imperial Palace in the north. The Marunouchi and Nara avenues were approximately the same width. Similar processional routes, highlighted by triumphal gateways and arches, were also a feature of the projection of authority in ancient Mesopotamia, Egypt and imperial Rome. For the opening of Tokyo Station on 18 December 1914, a three-bay triumphal arch, 34 metres high and 25 metres wide, adorned with gold imperial chrysanthemums and festooned with flags, was erected in the station plaza in front of the imperial entrance.²⁶

Tokyo Station and Steam Power

To understand fully the importance of Tokyo Station to imperial authority it is vital to appreciate the power of the locomotive and the authority of railway-station architecture to the contemporary nation-state. Internationally, by the turn of the twentieth century, the railway had created a new standard for judging progress and power by virtue of its revolutionary speed, carrying capacity and reliability as compared with horse-drawn transportation. The railway was the ubiquitous symbol of the Machine Age and this elevated the station building to the company of the highest authority. The most important railway stations in Europe and America became the cathedrals of the industrial age, with grand façades of stone and brick expressing their political, economic and social importance and their cavernous, smoky interiors, spanned by the modern miracle of cast-iron framing and glass, replacing the

Fig 9.10
The procession
of Emperor
Shōwa and
entourage
leaves Sakashita
Gatehouse of
the Imperial
Palace for
Tokyo Station
on the occasion
of travel to
Kyoto for the
Enthronement
Ceremonies,
November
1928
(Source: Official
publication,
*Shōwa tairi
shashinchō*.
Tokyo, Ōtsuka
kōgeisha,
1930)



Fig 9.11
Official party
farewelling the
Emperor and
Empress at
Tokyo Station,
1928
(Source:
Official publi-
cation, *Shōwa
tairi
shashinchō*)

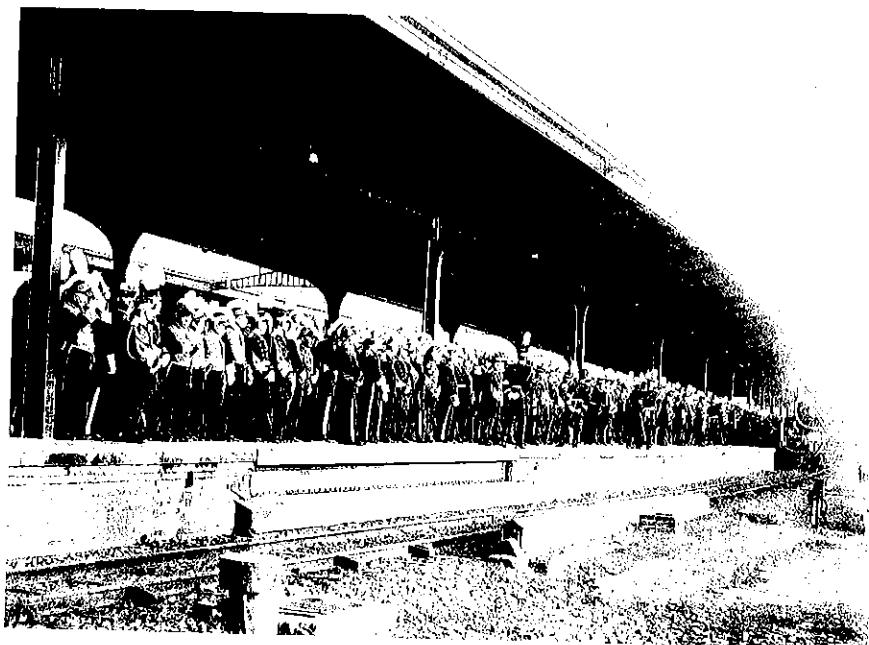


Fig 9.12
Emperor
Shōwa and
entourage
returning to
the Imperial
Palace, Tokyo,
from Tokyo
Station,
following the
Enthronement
Ceremonies in
Kyoto,
November
1928
(Source:
Official publi-
cation, *Shōwa
tairi
shashinchō*)



sacred spaces of incense-filled cathedrals in homage to the new gods of progress. Every city needed an impressive central railway station as its gateway on the world and as the focus of the comings and going of both the high and the low in society. These stations became an opportunity for propaganda in fierce international competition.²⁷

The station created a new urban phenomenon, the railway square, with hotels, offices and shops springing up around the entrance to the transport artery, redefining the centre of cities in the way that cathedrals and government houses had once defined the urban hierarchy. From Victoria and St Pancras Stations in London to Flinders Street Station in Melbourne, from Union Station in Washington DC to Victoria Terminus in Bombay, the railway station vaunted the material triumph of new technology in spanning continents and carrying people, goods and information in ways unprecedented in human history. By the 1880s and 1890s the railway was conquering the land in the way that the caravel had conquered the oceans four centuries earlier. The Orient Express and the Trans-Siberian Railway inaugurated a new era in international transportation, rapidly traversing formerly sacrosanct borders. The railway quickly became a tool for economic and political expansion, a mainstay of colonialism as well as capitalism, and an artery for rapid troop deployment in arenas of competing colonial interests, including East Asia, giving rise to the concept 'railway diplomacy' as part of the language of international confrontation.

In the climate of heightening international tension after the turn of the twentieth century, railways played their part alongside dreadnoughts as stepping-stones for the extension of national influence. The Trans-Siberian Railway, which reached Lake Baikal in 1902, was serving as an artery for

Czarist Russia's expansion into continental East Asia. Japan had learned the Western lesson of the importance of colonial power as an arm of national policy, and now sought to counterbalance this growing Russian influence. This culminated in the outbreak of the Russo-Japanese War in 1904. Japan's victory in 1905, along with British recognition of Japan as a great power in the Anglo-Japanese Alliance signed three years earlier, had secured Japan the international recognition which had been at the core of national concerns throughout the Meiji period. The Treaty of Portsmouth of 1905, which concluded the Russo-Japanese War, gave Japan the right to maintain guards on its railway interests on the Asian mainland and led to the establishment of the South Manchurian Railway Company. Strategic concern with railways continued with the conclusion of a secret treaty with Russia in 1907, which effectively divided Manchuria into a northern Russian zone of influence and a southern Japanese sector in response to fears of American railway expansion in the region.²⁸

It was entirely in keeping with the growing tide of colonialism, supported by railway expansion in China, that the occasion of the official opening of Tokyo Station on 18 December 1914, was used to welcome back Lieutenant-General Kamio Mitsuomi (1855–1927) and his staff from the successful military expedition in China against the German-occupied railhead at Qingdao. By securing this coastal city, situated between Beijing and Shanghai, in support of the Allied war effort against Germany following the outbreak of World War I, Japan gained access to the Chinese hinterland along the German-built railway to Jinan.²⁹ The account of the opening of Tokyo Station given in the *Tokyo Asahi* newspaper shows the clear connection in the public mind between Tokyo Station and the growing Japanese empire:

The grand spectacle of the opening, the brilliance of a triumphant return! On this day, the eighteenth [of December, 1914], Commanding Officer Kamio and his general staff, were joyously welcomed back to the Imperial Capital after their grand and triumphant military expedition, and marked the first step in the opening for business of the grand Tokyo Station, the largest station in Asia.³⁰

Building Tokyo Station

The construction of the central station was part of a comprehensive plan to complete the missing link in the Tokyo urban rail system from Shinagawa to Ueno. The creation of a modern national steam-railway system had been a high priority for the new Meiji state, with far-reaching implications for Western technology transfer and the formation of industrial infrastructure. In the early stages, all equipment including engines, rolling stock and rails, were imported from Britain, along with drivers and engineers. Finance was also heavily underwritten by loans floated in Britain. The first railway line was opened between Shinagawa and Yokohama in 1872, a distance of 29 kilometres. This became the main transportation artery between the old Tōkaidō post town on the boundary of the former city of Edo and the treaty port of Yokohama.

Politically, the opening of this line was an event of the first magnitude, with the emperor and his retinue boarding the train with all the pomp and

pageantry of a grand state occasion. The fact that the distinguished passengers stepped neatly out of their shoes on to the Shinagawa platform as they boarded their gilded rail coach, and had to be provided with substitutes upon their arrival in Yokohama, hinted at the social adjustments new technology was to force upon time-honoured custom.

The Japanese were understandably anxious to break free of foreign dependence. In the early 1870s a machinery hall for the Japanese National Railways was built at Shinbashi to begin local manufacture of engine and carriage parts. The building itself, however, had to be constructed using iron pillars and beams imported from Hamilton's Windsor Ironworks in Liverpool. But by the time that the railway network linked Kobe with Yokohama in 1889, the Shinbashi Factory of the Japan Railway Bureau had been built using locally manufactured cast-iron pillars and roof trusses.

The government objective was to complete a unified national railway reaching from Kyushu through Tokyo to link up with the expanding railway systems in the north of Honshu.³¹ As early as 1886 plans had been drawn up for this link, with a 'Central Station' proposed for a site in what became the Ginza. This proposal was put forward by the German, Wilhelm Böckmann who, together with Hermann Ende, had been invited by the Japanese Government to devise a master-plan for the government and administrative district of central Tokyo with a parliament building as its focus.³²

It was to be another 28 years of stop-start work and negotiations before Tokyo Station was finally opened in December 1914, two years after the death of the emperor Meiji. From 1893 the leading Prussian railway engineer Herman Rumshöttel, first invited to Japan in 1887 to work on the expansion of the railway system in Kyushu, was commissioned to survey the rail line between Shinagawa and Ueno.³³ After various delays caused by the Sino-Japanese War, it was decided to proceed with Rumshöttel's plan for an overhead railway using steel-frame and brick bridges to cross the major roads in the city.

In 1898 the government invited another German, Franz Baltzer, to prepare the detailed designs for the main station and tracks and to supervise their construction. Baltzer had recently completed the overhead urban line in Berlin, as well as the Köln Station, and was considered to be ideally suited to this task.³⁴

Railroading Authority: Tatsuno and Proper Station

It was Balzer who drew up the first detailed plans for Tokyo Station, with the main building situated on the west side of the site, facing towards the imperial palace, and a rational arrangement of through-tracks, platforms and freight-yards located on the Yaesu or east side. Balzer's design unwittingly precipitated a crisis in the architecture of Meiji authority. Perceiving a need to reconcile contemporary political needs with traditional Japanese architecture, he produced a design for the station building comprising a series of structures similar to the architecture of the palaces of the daimyo, many of which were still extant in Tokyo. The chambers to receive the emperor were marked by a grand *karakafu* set over the entrance (Figure 9.13).

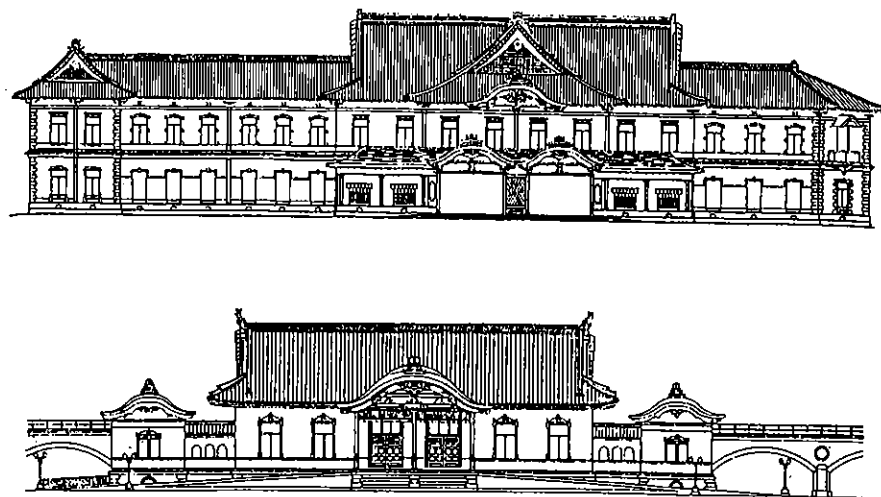


Fig 9.13
Franz Baltzer's
designs for the
Tokyo Station
Building
(1898-99).
(Main building
and entrance
to railway plat-
forms (above),
and Imperial
Entrance
(below).
(Source:
Kajima (ed.)
*Tōkyō eki
tanjō*)

The magnificently expressive flowing form of *karahafu* had been central to the architectural iconography of Momoyama and Edo period authority. We have seen from the *Aobyōshi* that as late as 1841 the *karahafu* was still reserved as a status symbol for daimyo of highest status. Balzer's design for Tokyo Station was therefore entirely in keeping with Japanese traditions of architecture and authority, but it was entirely out of step with the intention of the Meiji imperial state to represent its new authority as a modern, Westernised nation. The plans were rejected by the committee responsible for the station development. It was decided to retain only Balzer's general layout for the station complex, rails, platforms and freight-yard, and to employ a Japanese architect to design a red-brick, Western-style building instead.

This was similar to the situation which had occurred when Ende and Böckmann had presented to the government their detailed designs for a new Diet Building in Tokyo in 1887. After careful consideration of the Japanese tradition of architecture and authority, they had proposed an European-style building with traditional Japanese hip-gable tiled roof and a central hall capped with a fanciful pagoda-like tower. A *karahafu* graced the classical columns of the central entrance.³⁵ This proposal had also been rejected out of hand.

After the failure of Balzer's Tokyo Station plans to win the committee's approval, the task of designing the new Tokyo Station building was put in the hands of a Japanese, Tatsuno Kingo. Along with Katayama, it is Tatsuno who best symbolises the Meiji architectural establishment. He had been a member of the governmental committee responsible for drafting the architectural requirements for the new Diet Building, and was no doubt involved in the decision to turn down the Ende-Böckman proposal.³⁶ It was now considered that he could be relied upon to give the Tokyo railway building its proper station in the Meiji state.

Tatsuno was an architect of authority in both the literal and metaphorical sense, so strong was his contribution in giving tangible expression to the authority of the Meiji period. His background and career closely conform to

the pattern typical of most Meiji leaders whatever their field. Like Katayama, he had been born of a samurai family, in 1854, in Karatsu of the province of Hizen. He was part of the first student intake for the newly established Imperial College of Engineering. In 1879 he graduated at the head of his class and received a travel scholarship from the government which enabled him, along with nine other members of his graduating class, to travel in England and Europe and gain first-hand experience of Western architectural practice. In May 1880 he entered the architectural firm of Burges in London, while undertaking courses in architecture and art at the University of London. In 1883 he returned to Japan after a period of study of architecture in France and Italy. His sketch-books include precise drawings of corbelling, pediments and towers.³⁷ Upon his return to Japan he quickly became the central Japanese figure in the adoption of Western architectural styles, succeeding Conder as Professor in the Faculty of Engineering of the University of Tokyo. He was co-founder of the Japan Architects Association, later serving as President, and helped to establish *Kenchiku zasshi*, the journal through which technical information on Western building practice was disseminated throughout the architectural profession.

In 1888-1889 Tatsuno visited Europe and America in order to make a special study of bank buildings, paralleling the way Katayama had made a special study of European palaces. The establishment of a new Western style banking system, with the Bank of Japan at its centre, was crucial to the economic programmes of the Meiji state, so new bank buildings loomed large on the political agenda. It is clear that Tatsuno's study of Western bank buildings was part of a well-concerted policy directing the acquisition of Western architectural skills in mid-Meiji, in preparation for a Japanese take-over of responsibility for building projects from foreign teachers and mentors. Approximately two-thirds of the 140 buildings with which Tatsuno was associated over his long career were to be bank buildings. The rest were a mixture of commercial and institutional buildings together with four major railway station buildings. Tatsuno designed not only the Main Building of the Bank of Japan (1890-1896), the central institution for Japan's modernising economy, but also its branches in Osaka, Kyoto, Nagoya, Kanazawa, Hakodate and Hiroshima. The main building was built in a Classical Revival style. It was the first major application of structural steel to architecture in Japan had brick walls faced with stone.³⁸ Thereafter the basis of Tatsuno's architectural practice was to become red-brick buildings with steel frames. The exteriors were complete with the horizontal bands and stone Classical Revival details characteristic of 1880s London, but more flamboyant and overtly decorative than the one employed by Conder. Tatsuno's combination of experience in Western institutional architecture and the expressive power of his design work made him preeminently suited to the challenge of designing the Tokyo Station building.

Surviving drawings reveal three distinct stages in the evolution of Tatsuno's design (Figure 9.14).³⁹ In the initial stage, little more than a conceptual sketch, a three-storey Neo-Baroque hall, capped by a short clock-tower, was placed at the centre. The structure had a Classical Revival porticoed entrance for receiving the emperor and imperial family when they travelled around the nation on

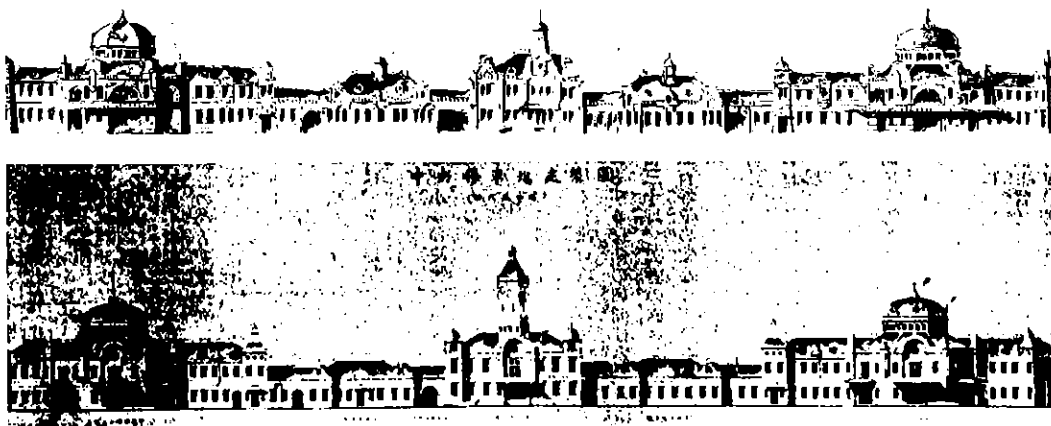


Fig 9.14 The first two stages in Tatsuno Kingo's design for the Tokyo Station Building (1903–5) (Source: Yoshikawa Seichi, Mizuno Shintarō (eds.) *Tōkyō eki to Tatsuno Kingo. Ekisha no nari-tachi to Tōkyō eki no dekiru made*)

official tours. The central hall was flanked by a pair of large identical buildings, each with its own central hall and matching wings. One was to be reserved for departures and the other for arrivals by the general public, a rational approach to crowd control retained in the final design. The three main buildings were connected by two-storey buildings and a corridor one storey in height. Overall, there was little stylistic unity in the façade; it was more a collection of buildings loosely conjoined, than a single unified structure.

The second stage of the design process did little to unify this overall design. It concentrated instead on giving visual emphasis to the emperor's hall by means of an arched pediment set over the entrance, with a squat, Gothic Revival tower situated above it. The third stage of the evolution of the design, however, reveals the design of the building as it was to be constructed. The Gothic tower on the emperor's hall has been replaced with a high mansard, Second Empire-style roof more in keeping with the Neo-Baroque style of the rest of the station. The entrance portico is given heavier pillars closer in style to those used at the Akasaka Palace. The scattered collection of buildings shown in the earlier stages has now been integrated into a uniform façade. The third design redrafting coincided with Japanese victory in the war against Russia and the re-establishment of public control over the national railway system in 1906, a factor which increased the need for administrative space within the building. As a result the building is approximately one-third space higher than in the earlier designs, comprising three storeys in all, and additional rooms with dormer windows have been worked into the roof.

Despite Tatsuno's unquestionable authority over the project it would be a mistake to think of the Tokyo Station building as simply the work of one person. The scale alone suggests that this would have been impossible. Moreover in 1903, when planning began, Tatsuno was still completing the large Osaka Branch building of the Bank of Japan. During the final design and construction phase at Tokyo Station from 1906, Tatsuno was also responsible for building two other stations in Tokyo and one in Pusan in Korea, as well as the National Sumo Stadium in Tokyo.

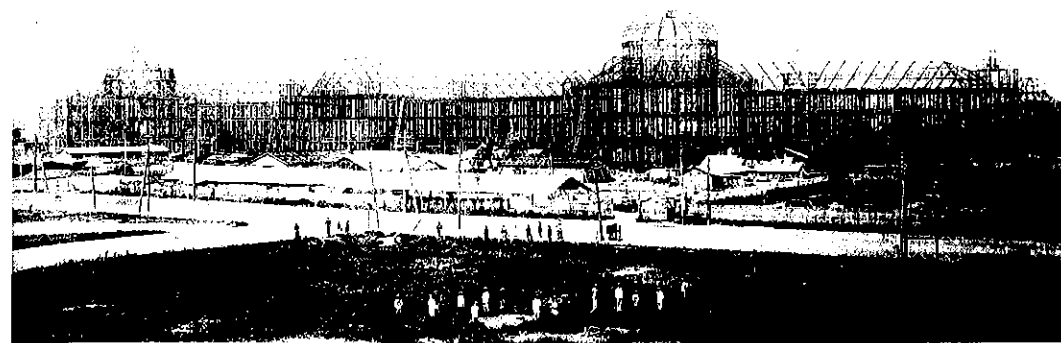


Fig 9.15 Tokyo Station showing construction of the steel framing (Source: Transportation Museum, Tokyo)

In order to carry out this heavy work-load Tatsuno established two architectural offices, one in Tokyo and the other in Osaka. Each office had a junior partner and several assistants. Tatsuno was aided in the drafting of the Tokyo Station drawings by Kasai Manji, his junior partner at the Tokyo Office. Kasai, a graduate from Tatsuno's own architectural course at the University of Tokyo in 1903, had immediately upon graduation become the junior partner to his former professor.

Tatsuno's Tokyo office developed a standardised design for its railway station buildings as a result of the experience of designing and redesigning Tokyo Station. The characteristic hall with the flanking wings used at each end of Tokyo Station are to be found again at Tatsuno's Manseibashi Station, completed in 1911, and the new Shinbashi station building at Karasumori, finished in 1914. All three buildings even had similar Neo-Baroque pediments, windows and arches. The design of Tokyo Station also shows influences from Tatsuno's other work: the grand arched pediment over the emperor's entrance at Tokyo Station, which is such an important feature of the building in symbolic terms, is a larger version of the entry to the Kyoto branch of the Bank of Japan, a banded red-brick building completed in 1906 under the direction of his Osaka Office.

The most distinctive feature of Tokyo Station, apart from the red-brick, are the ribbed domes which crown the north and south wings and which rest upon the sturdy steel-frame structure of the walls (Figure 9.15). The domes were added to the station design to bestow greater visual impact and appropriate symbolic importance to the station than that presented by the other red-brick buildings of Marunouchi which it faced across the railway square.

The dome became paramount in the architectural vocabulary of authority in the first decade of the twentieth century in Japan. Tatsuno had first experimented with a dome on the Bank of Japan headquarters building (1890–1896), but this was a rather modest and tentative example of the genre. His colleague Katayama put the dome to greater visual effect for the Hyōkeikan, completed in 1909. Here a large ribbed dome, complete with Baroque oriels, was set over the central hall, and a smaller dome rose at the end of each wing.

The dome had been rediscovered during the Renaissance, and enjoyed enduring prominence on such great edifices as St Peter's in Rome and St Paul's in London. During the Baroque revival it was used with considerable enthusiasm because of the exciting curved emphasis it gave to roof-lines and the opportunity afforded by its interior for painting and gilded embellishment. Young Japanese architects were introduced to the dome during their visits to European cities after 1877, but it took nearly a generation of building practice to master the engineering technology needed to create a structurally stable dome in Japan. The first dome designed and built by a Japanese was the octagonal ribbed dome which crowned the central tower of the Hokkaidō Development Commission headquarters, later to serve as the headquarters of the Hokkaidō prefectural government (Hokkaidō-chō). Completed in 1888, it was the tallest structure in the city of Sapporo, a spectacular symbol of authority with its copper roof gleaming in the sun surrounded by a forest of tall brick chimneys billowing coal smoke on a winter's day.

This first dome may have been a public-relations triumph but structurally it proved an unmitigated disaster. It was built with a timber frame, each piece carefully crafted by traditional master carpenters. The pillars of the dome tower were set into the base of a Western-style rigid triangular truss roof, in much the same manner of the belvederes which had been added to conventional framed structures to create the early castle keeps in the sixteenth century. Unfortunately the Japanese did not realise that the Western trussing required strong lateral bracing to counteract the lateral pressure exerted by the dome and its tower. In 1895, seven years after its completion, the dome and tower collapsed, falling dramatically to the earth below, the inherent structural instability exacerbated by rain damage.⁴⁰

Although Conder completed the large ribbed dome of the Russian Orthodox Cathedral in Tokyo, the St Nicholas Cathedral, in 1891, and Tatsuno the more modest Bank of Japan building soon afterwards, the real breakthrough in dome construction was Tatsuno and Kasai's National Sumo Stadium, completed in 1909 just as the framing operation for the Tokyo Station domes was commencing. The sumo stadium was covered by a giant semi-circular steel frame clad in glass, with a span of 66 metres. The stadium, when finished, had a seating capacity of 13,000 people, making it easily the largest such structure to have been built in Japan to that date. With the experience gained at this project, the Japanese were able to proceed without foreign supervision in the erection of the intricate earthquake-proof, steel-framing of Tokyo Station (see Figure 9.15). The logistics of the project alone indicate the enormity of the engineering undertaking. The construction work was in the hands of Ōbayashi-gumi, with an average of 3,000 workmen employed at the site each day, a tribute once again to the Japanese ability, demonstrated from time immemorial, to organise monumental construction projects.⁴¹

The feature for which Tokyo Station is best known is its red-brick walls. The walls were actually supported by steel framing, much of it imported from England. However, as a result of further experience gained in erecting rigid steel framing during the construction of the Sumo Stadium, the Japanese were now confident of their ability to construct a steel-frame structure in a seismic region. In addition, building with bricks posed few of the immense

loading problems presented by the granite walls of the Akasaka Palace. The bricks themselves were of two types, wall bricks, and veneer bricks used to decorate their outer surface. In all 8,332,000 wall bricks and 934,500 veneer bricks were used in the construction of the station. These bricks were specially prepared by five different companies. The Japan Brick Manufacturing Company was responsible for the wall bricks and four other firms received contracts for the various types of ornamental brick used to enliven the walls.⁴²

From the early years of Meiji, brick played an increasingly important part in the creation of the new Westernised cities. Brick imported from Shanghai had first been used for godowns in the foreign treaty ports in the 1860s⁴³ but as a construction material it assumed political importance for the Meiji government when it was used in the rebuilding of what is now known as the Ginza district of central Tokyo following a devastating fire in 1872. The rebuilding was the first concerted urban modernisation project of the Meiji government, transforming part of the old artisan district of Edo into a show-piece of large-scale, Western commercial enterprise. The project was under the supervision of a British engineer, Thomas Waters, who laid out a broad avenue southwest from the old Kyōbashi and lined it with the simple, Classical Revival-style buildings preferred by engineers. The walls were made of brick, selected because of its fire-proof quality. The bricks were covered with a veneer of Portland cement, a common practice in Europe used to disguise this distracting vernacular material, but the Japanese, no doubt captivated by its quintessential foreignness, quickly elevated brick in the hierarchy of building materials and flaunted it as an exotic exterior cladding.

Thereafter brick assumed iconic significance as a physical embodiment of things Western and modern, of the civilization and enlightenment extolled by the Japanese political and intellectual leaders. Red-brick became for the Meiji state what red pillars had been for the Nara state. Brick construction was used in a wide range of public and commercial buildings as well as more humbly utilitarian structures. The most extensive use of brick was found in the new Mitsubishi commercial district in Tokyo, across from which Tokyo Station was to rise, but brick was employed in an extraordinary range of other structures. These included those for government ministries such as the Ministry of Justice, and for local government, of which the Hokkaidō Prefectural headquarters of dome fame is best known, along with banks, university libraries and chapels, post offices and museums, railway bridges and aqueducts, and the large water-front warehouses in the treaty ports of Hakodate and Yokohama, a number of which still stand today.

The Japanese may have perceived brick as foreign, and therefore exotic and desirable, but it is equally possible that its rustic textured surface struck an aesthetic resonance because of its similarity to the familiar earth walls of farm-houses and the consciously rustic walls of tea-houses and aristocratic retreats in the Japanese tradition. Brick walls had, moreover, a great practical advantage; they were quick to erect, the same quality which had made brick the preferred material for European rulers in a hurry like the Roman emperors and France's Henri IV. And the Meiji Japanese were certainly in a hurry to build their new environment. Brick also raised none of the procurement problems posed by stone which had beset the castle-builders of Edo nearly 300

years earlier and it was easy to manufacture, especially for a nation with a long-established tradition of terracotta tiling. Western-style bricks were being manufactured as early as the 1850s in daimyo domains such as Saga, Satsuma, and at Nirayama in Izu, for the making of reverberatory blast furnaces. The first known use of brick for an actual building in Japan was at the Nagasaki Ironworks in 1857.⁴⁴ Ende and Böckmann persuaded the Japanese Government to send a brick-maker, Ōtaka Shōemon, to study brick-making and laying in Germany. He was one of a group of 20 Japanese which included 17 craftsmen sent abroad to study stone paving, stained glass, etching, painting (of buildings) and masonry techniques. Upon his return to Japan in 1887 Ōtaka established the *Nihon renga seizō kaisha* (Japan Brick Manufacturing Company) with a large, Hoffman-style circular kiln at its factory in Saitama prefecture near Tokyo. The main share-holder was that indefatigable industrialist and company director, Shibusawa Eiichi (1840–1931). The company was to supply the wall bricks for most of the important red-brick buildings of Meiji-period Tokyo, including Conder's Mitsubishi Number One Building, Tatsuno's Bank of Japan, of which Shibusawa was a director, and the wall bricks for Tokyo Station itself.⁴⁵

For the Japanese of the time it mattered little that brick walls, when made in the Western load-bearing manner, collapsed during earthquakes. Comfort also seemed to be a secondary consideration to image, for solid brick wall buildings, with their poor air circulation and problems of inherent dampness, were unsuited to Japan's humid summers and extended wet and typhoon seasons. Traditional Japanese construction methods, with their flexible timber framing to carry the load of the roof and light-weight non-bearing walls of moveable screens and plaster infill, were infinitely stronger seismically and more suitable climatically to Japan's conditions than were load-bearing brick walls. The Japanese soon found, however, that brick walls could be strengthened by supporting them with traditional timber frames in one of those processes of adaptation of foreign ideas for which Japanese civilization is renowned.⁴⁶ By the turn of the twentieth century steel framing had replaced the timber.

The completion of the Shinagawa-Ueno line, with Tokyo Station at its centre, was another major milestone. It marked the swing away from private enterprise to renewed state control of major trunk lines. From the beginning of the Meiji era the state had adopted a financial policy of concentrating capital to facilitate the growth of nascent Western-style industries. Once on their feet, privatisation was to follow, in keeping with prevailing Western practice. This had been the strategy employed for heavy industry and was applied with equal success to railways. By the 1880s there was a steady growth in private railway lines, with 1,864 kilometres of lines in private hands by the end of the decade compared with 887 kilometres in state hands.⁴⁷ In 1905–1906 the policy was reversed and Tokyo Station was completed as the focus of the renationalised railway system.

The construction of Tokyo Station took place against the background of financial shortages created by the high cost to the economy of the Russo-Japanese War, exacerbated by the absence of war indemnities as a result of the American-engineered Treaty of Portsmouth. The final cost of Tokyo

Station was 2.7 million *yen* – slightly more than half the cost of the Akasaka Palace, and modest if the scale of the engineering as well as architectural work is taken into account.⁴⁸ Although the war itself had stimulated military-related industries, it was followed by inflation and problems of industrial transition. The cost of nationalising the railways also placed a heavy burden on the state. In 1905 the economy too was at a critical point of transition from traditional to modern industry.⁴⁹ Tokyo Station may have been grand in scale, but cost-cutting because of the general economic situation is also apparent in the use of plaster for some of the detailing normally reserved for stone. Tatsuno himself complained of lack of finance to make alterations to the design of the Imperial Entrance after the third phase drawings were completed. He obviously felt the inadequacy of an entrance which was little different from that of the Kyoto Bank upon which it was modelled.⁵⁰

It may be appreciated, therefore, that the creation of the new railway station at the heart of Tokyo was a momentous achievement for nation and state as Japan moved into the twentieth century. Tokyo Station transcended its immediate function as the focus of a national transportation system to assume iconic significance as a statement of technological power and national authority sanctioned by the imperial presence and emphasised by its dramatic urban setting.

Marching to a Different Tune: The Ministry of Education and the Sōgakudō

The impression which may be gained from the study of Akasaka Palace and Tokyo Station is of a monolithic projection of authority by the Meiji establishment – using certain officially approved Western architectural styles mastered by architects trained at the official university, and modified by structural necessity, stylistic preferences and a certain amount of domestic politics. A third Meiji-period building reveals another and lower level of Western-style architecture in the hierarchy of the Meiji establishment, the significance of which has only recently been realised. This building is the Sōgakudō, constructed in 1889–1890 as the main building of what was to become the Tokyo University of Fine Arts (Tōkyō Geijutsu Daigaku). The Sōgakudō, or 'Hall for Instrumental Music', served as the college where most Western-style musicians were trained in Japan. Moreover, it contained Japan's first Western-style concert hall, and served as the virtual 'National Theatre' of Western music until after World War II. This finely crafted building, dedicated to the musical arts, typifies the broad genre of education buildings built for the Meiji government in pursuit of the goals of a Westernised system of learning for the modern state.

Today the Sōgakudō stands on a site in Ueno Park in Tokyo, close to its original location, but considerably reduced in size (Figure 9.16). It was originally some 80 metres in length but the left wing was amputated to allow the erection of a new university building in the inter-war period. During the 1983–1987 restoration it was decided to reduce the length of the remaining wing and use the timbers salvaged to build a shorter version of the lost wing.⁵¹ This at least re-established the symmetrical integrity of the original

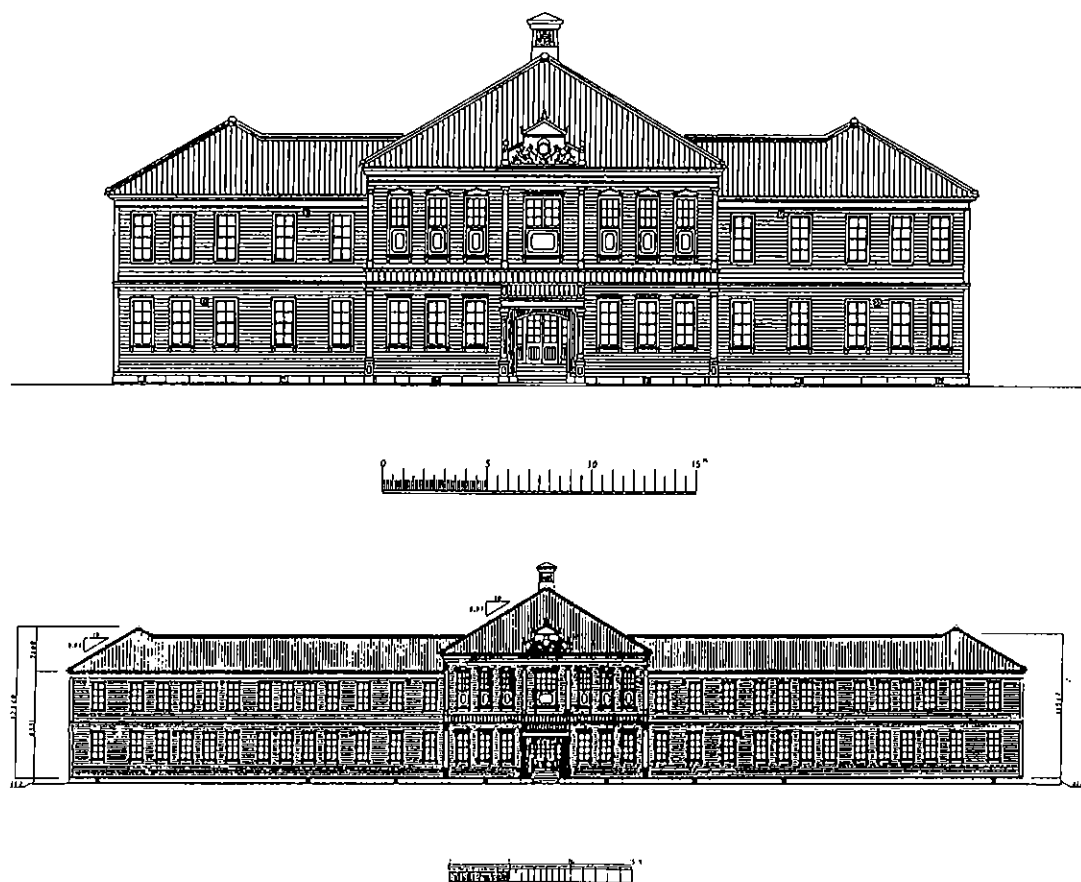


Fig 9.16
Sōgakudō,
Tokyo. Front
elevation after
1983–87
restoration
(top) and at
time of
completion in
1890 (bottom)
(Source:
Zaidan hōjin
bunkazai
kenzōbutsu
hozon gijutsu
kyōkai (ed.)
*Kyū Tōkyō
Ongakko
Sōgakudō
ichiku shūri
kōji hōkokusho*)

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Meiji-period design. Despite this major surgery it is clear even from a study of the truncated structure that the Sōgakudō was a remarkably mellifluous accomplishment in Western-style architecture. The overall style is Classical Revival, with a Palladian portico, carefully crafted timber mouldings, cornices and applied pilasters, and an impressive Baroque pediment set into the eaves over the central entrance (Figure 9.17).

The Sōgakudō exemplifies the official architectural style adopted by the Ministry of Education (Monbushō) from the middle of the Meiji period for most of its prestige buildings. The style was based on the French Classical Revival of the first Napoleonic empire, rather than that of the Second Empire of Napoleon III which was at the time becoming popular in Japan through the Imperial College of Engineering architectural programme.

The reform of education was a fundamental and far-reaching policy of the Meiji state in its pursuit of Westernisation. The 1872 Education Ordinance outlining this policy of a fully Westernised system of primary-school education was immediately implemented. Detailed studies of the European and American education systems were conducted. By 1877 a large education museum had been established in Ueno Park near the present site of the



Sōgakudō. Edward Morse, brought to Japan under the government foreign employees scheme to teach botany at the University of Tokyo, commented that the museum building included:

a long and spacious hall [which] was filled with an extensive and interesting collection of educational apparatus from Europe and America – modern schoolhouses in miniature, desks, pictures, maps, models, globes, slates, blackboards, inkstands, and the minutest details of school appliances abroad. . . . What a wise conception of the Japanese, entering as they were on our methods of education, that they should establish a museum to display the apparatus used in the work. Here was a nation spending nearly a third of its annual budget on education, and in contrast Russia spending a half of one percent on the same department.⁵²

Construction of the Sōgakudō began just two years after Morse made these observations. The completed building provides a clear illustration of the government's educational priorities of the 1880s as revealed in Morse's comments, that is, the creation of Western-style buildings appropriate to Western-style education. The architects of the Sōgakudō were Yamaguchi Hanroku and Kuru Masamichi. Of the two, Kuru was the junior, joining the Ministry of Education after graduating from the University of Tokyo in 1883. He later became influential as an architect and was responsible for the Hōōdō-den of the Japanese Pavilion of the 1893 Columbian World Exposition. However in the late 1880s and 1890s it was Yamaguchi who was the more significant. He was employed as 'Chief Architect' (*gikan*) of the Ministry of Education, the same title later received by Katayama to mark his status as chief architect of the Imperial Household Agency. Yamaguchi was plagued by poor health, which restricted his architectural output to a mere ten years, yet

Fig 9.17
Sōgakudō.
Front oblique
view after
1983–87
restoration

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his contribution between entering the Ministry of Education in 1885 and leaving it for private practice in 1892, was to prove decisive in forging the official architectural style of the Ministry of Education. Yamaguchi's professional training had been very different from that of the mainstream Conder group, resulting in a notably different nuance to the architectural language of Ministry of Education authority. At the age of 18, in 1876, Yamaguchi was selected as a member of the second group of Monbushō-sponsored students to study abroad. He entered the famed École Polytechnique (École Centrale) in Paris, and completed the three-year course in civil engineering, followed by two years' practical experience in Paris. The timing is significant, since 1876 was the year before Conder's arrival in Japan and the early programme in architecture at the forerunner to the Imperial College of Engineering was still dominated by pragmatic engineering.

Yamaguchi returned to Japan and from 1885 to 1892 was Chief Architect in charge of the construction of educational buildings throughout Japan. In this capacity he was responsible for the Main Building of Rika Daigaku, or Science Faculty of the University of Tokyo in 1888; the Fifth National Middle and High School built in collaboration with Kuru in 1889; the First National Middle and High School of 1890; the Second National Middle and High School of 1891, and the Fourth National Middle and High School, in collaboration with Kuru once more, in 1891.⁵³ The Physics and Chemistry Theatres of this Fourth National High School survive in restored form at Meiji Village. The Sōgakudō therefore belongs to a stream of architectural projects flowing from the Ministry of Education under the direction of Yamaguchi.

Yamaguchi's work directly reflected his French background as an engineer trained in the Classical Revival forms of the first half of the nineteenth century. This classicism was less emphatic, simpler in form and decoration than the Classical Revival of the Second Empire, with its ornate Neo-Baroque forms. In fact Yamaguchi's work springs directly from the École Polytechnique tradition. This famed engineering school had been founded by Napoleon and was dominated by J.-N.-L. Durand. His treatises became 'a sort of bible of Romantic Classicism that retained international authority for a generation or more'.⁵⁴ Although in the way of most timber-frame Western-style buildings of the 1880s it was built using traditional Japanese joinery and carpenters' tools, the roof trussing and spanning of interior space – particularly in the concert hall – is based on Western engineering techniques (Figure 9.18). The use of the tensioning rods in the concert hall and in the trussing system is particularly indicative of Durand's influence.

Durand's Classical Revival forms have a strong sense of utility, but the fenestration, pilasters and colonnades lack real stylistic conviction. The pragmatic classical features of the Sōgakudō clearly reflect this; the façade is competent but uninspired. Its style becomes explicable as a distant descendant in wood of the masonry palaces of the Roman Renaissance, interpreted by the École Polytechnique. Together with the Victorian brick and the French Second Empire style, this earlier Classical Revival, already out of fashion in Europe, exerted an enduring influence on the Meiji-period educational establishment. It resulted in a distinctive genre of weatherboard school buildings which assumed a lower level in the architectural hierarchy of the Meiji state

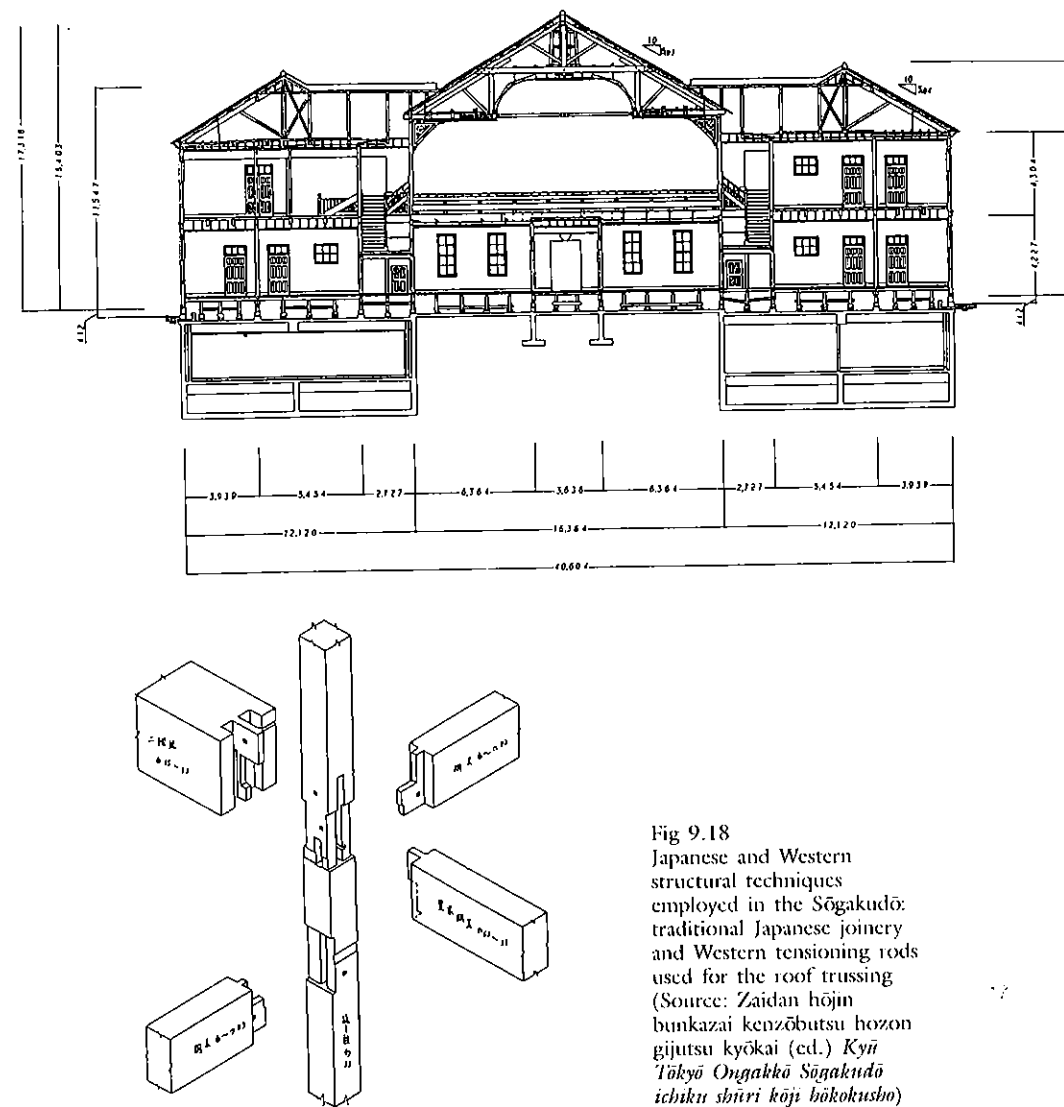


Fig 9.18
Japanese and Western
structural techniques
employed in the Sōgakudō:
traditional Japanese joinery
and Western tensioning rods
used for the roof trussing
(Source: Zaidan hōjin
bunkazai kenzōbutsu hozon
gijutsu kyōkai (ed.) *Kyū
Tōkyō Ongakkō Sōgakudō
ichiku shūri kōji hōkokusho*)

than the grand stone and red-brick buildings, in much the same way as daimyo gatehouses in the late Edo period were differentiated in status by the presence or absence of *karahafu*. Many of these school-buildings were to survive well into the post-World War II period in towns and villages dispersed throughout the nation, evidence of the widespread impact on perceptions of the establishment wrought by the Meiji educational reforms.

The Disestablished Daibutsuden

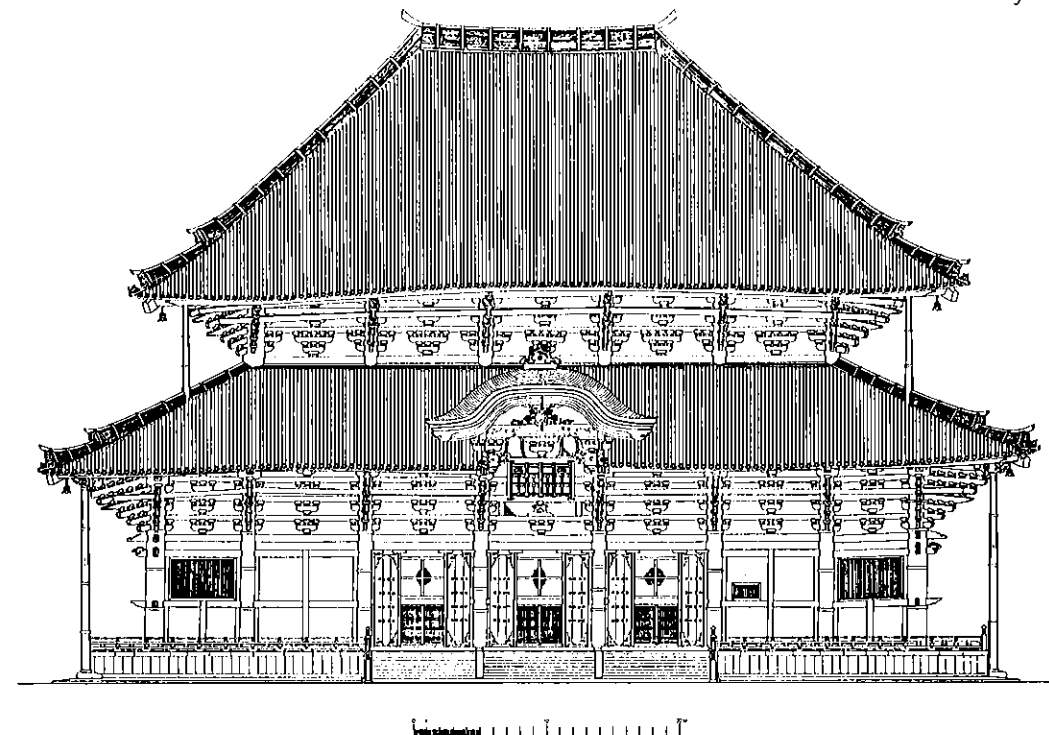
In the meantime, it is pertinent to ask what had been the fate of Japanese traditional architecture in this period of such prodigious construction of Western-style buildings? The Japanese adoption of Western architectural styles

was pragmatic in terms of national needs, but became autocratic, developing its own momentum and direction and threatening much that was valuable in tradition. New architecture was inexorably challenging the bases of Japanese society, contributing its own particular dynamic to the process of Westernisation but at the same time exacerbating the problem of accommodation with tradition. A decade after the completion of the Sōgakudō, at broadly the same time as the Akasaka Detached Palace and Tokyo Station were being built, another project of equal importance to the understanding of architecture and authority in the Meiji state was being undertaken at Nara. This project was the repair and reconstruction of the Daibutsuden of Tōdaiji, a process which continued for seven years from 1906 to 1913. Unlike the Akasaka Palace and Tokyo Station, which stood in the limelight of Meiji authority, the Daibutsuden of Nara was lost deep in the shadows, its importance only begrudgingly and belatedly acknowledged by the state. Radically different in architectural style and religious and political meaning from the officially sponsored building projects, the Daibutsuden survived a dual crisis of identity and technology to reassert its moral authority over government by the end of the Meiji period.

Tōdaiji was the antithesis of everything that the Meiji state espoused as important. Its religious and architectural character was at cross-purposes both with State Shinto as official belief and Western building types as the establishment environment. It is therefore most instructive to revisit the Tōdaiji as it stood in the Meiji period, in order to ascertain how time and circumstance were treating it in an age preoccupied by Western-style palaces, railway stations and concert halls.

Tōdaiji had proved remarkably resilient, surviving the abandoning of Nara as the national capital and the consequent loss of state patronage in the ninth century. During the civil wars of the late twelfth- and later sixteenth-centuries most of its principal buildings, including the Daibutsuden, were destroyed by fire. The Daibutsuden had on each occasion risen from the ashes, its Great Buddha repaired and recast. Each time it had been a combination of a charismatic monk raising sizeable private donations and the patronage of the reigning shogunate which had enabled rebuilding to proceed.⁵⁵

The Daibutsuden as it survived into the early Meiji period had itself been rebuilt under Tokugawa patronage between 1688 and 1707. Although it retained something of the flavour of the earlier twelfth-century building, with such features as multiple-tier bracket sets, it also reflected Tokugawa architectural symbolism, particularly and predictably, the addition of a *karahafu* over the central bay (Figure 9.19).⁵⁶ It is unarguably the Tokugawa-sponsored Daibutsuden which stands at Tōdaiji today, but it survives only because of the Meiji-period rebuilding. By the late nineteenth century the Edo-period building was in danger of structural failure. The huge upper roof was collapsing under a load of tiles which weighed 2,000 tonnes. The bracket sets at the corners, which took the brunt of this load, were bent as much as 20 degrees from the horizontal. The main roof truss was no longer stable. As a temporary measure extra struts had been pushed in to prop up the ends of the roof, but rain-water was seeping into the truss, causing many timbers to rot and exacerbating the structural problems.

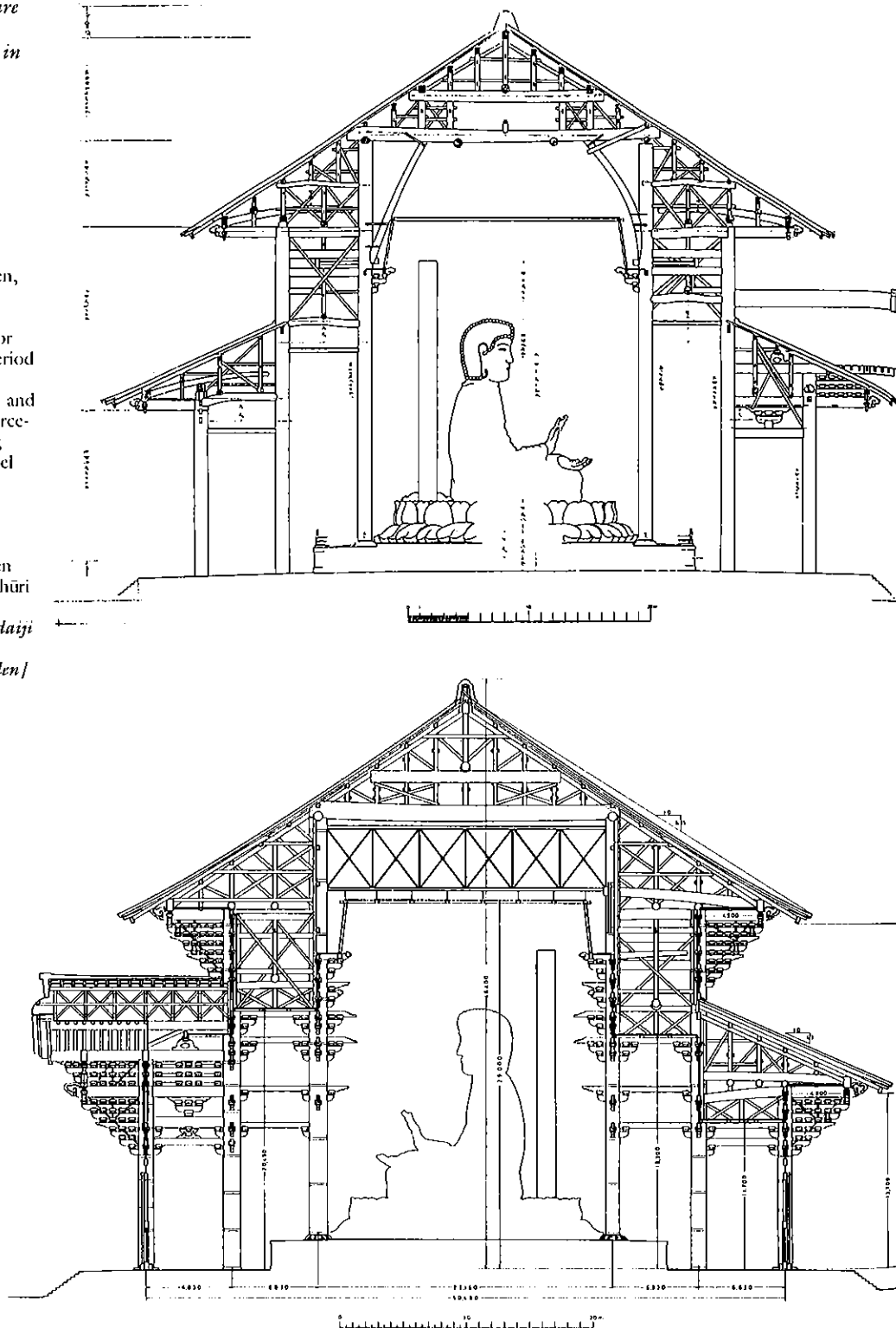


The building had to be completely dismantled and reconstructed. The project was carried out under the direction of the national government's Ministry of the Interior (Naimushō) with site work supervised by a special bureau based in Nara. Technical direction was in the hands of the new generation of Japanese specialists, trained in Western architecture and armed with doctorates in engineering from the University of Tokyo. Tsumaki Yorinaka was technical director, Itō Chūta and Sekino Tadashi were assistant directors while Amanuma Shun'ichi was a technical consultant.⁵⁷ Itō, Sekino and Amanuma were to be responsible for the first major studies in the modern field of Japanese architectural history.

In view of their training in Western architecture and engineering, it is not surprising that the solution found for the structural dilemma of the Daibutsuden by this able team was drawn from outside the Japanese architectural heritage (Figure 9.20). Detailed Western-style scale drawings were made, including calculations of mechanical stress using the principles of Western engineering. Structurally weakened members were replaced with new timbers and steel bracing was inserted to strengthen the roof truss and the caves bracket sets. A box truss of imported Shelton steel was inserted in the roof framing to support the traditional timber truss. This ingeniously contrived foreign intrusion was hidden from view by a suspended ceiling of traditional Japanese design. In addition to reinforcing the main truss, diagonal bracing was added to the side bays and the upper levels of the roof structure. Bolts

Fig 9.19
Daibutsuden,
Tōdaiji. Front
elevation prior
to Meiji period
restoration
work
(1906–1913)
(Source:
Tōdaiji
Daibutsuden
Shōwa daishūri
inkai (ed.)
*Kokuhō Tōdaiji
Kondō
[Daibutsuden]
shūri
hōkokusho*)

Fig 9.20
Daibutsuden,
Tōdaiji.
Transverse
section prior
to Meiji period
restoration
work (top) and
after reinforce-
ment using
Shelton steel
box truss
(bottom)
(Source:
Tōdaiji
Daibutsuden
Shōwa daishūri
iinkai (ed.)
*Kokuhō Tōdaiji
Kondō*
[Daibutsuden]
shūri
hōkokusho)



and metal plates strengthened the traditional wood joinery at the intersection of critical load-bearing members. Iron tensioning rods were set at an angle of 45 degrees above the outer pivot points of the bracket arms in order to provide additional support to the overworked cantilevers. Concrete was used to secure the ornamental ridge-tiling. The load of the roof was reduced 12 per cent by cutting down the number of roof tiles from 128,000 to 112,000 through the use of composite tiles in place of the separate pan and cover tiles traditionally used for projects of this type.⁵⁸

One can only sympathise with the restorers of the Daibutsuden in their recourse to this Western solution. The scale of the problems they faced was daunting in the extreme. There had been attempts to repair the building in 1882 using conventional means but these had been unsuccessful.⁵⁹ There were simply no timbers available anywhere in Japan suitable for the restoration of a structure the size of the Daibutsuden. Further, by the early twentieth century, the master carpenters capable of building on that scale had all passed away leaving no heirs to their tradition of monumental construction. There had been no large-scale traditional architectural project in the earlier part of the Meiji period to keep the special skills of large-scale structure construction alive. The Tokugawa master carpenters had been able to rebuild the Daibutsuden in the late seventeenth century because they were less than two generations removed from the builders of the great castles, palaces and religious buildings of the early Edo period. Their fathers and grandfathers would have transmitted to them knowledge gained from building the vast halls of Nishi Honganji and Fushimi Castle. The master carpenters of the end of the Meiji period were reaching back beyond their collective experience and as a consequence were found sadly lacking.

The Tōdaiji project may have represented a failure of traditional building technology but it was a remarkable demonstration of the newly acquired Japanese mastery of advanced Western engineering techniques. The use of steel framing to solve the problem of preservation of the Daibutsuden was an ingenious but inevitable result of Meiji concern with Western technology. It reveals that the fundamental objective of architectural restoration was the maintenance of the appearance of the original Japanese building while resorting to artificial means, that is, methods outside the original techno-aesthetic complex, to preserve it. This philosophy may not be acceptable to restorationist architects today but it reflected the approach common in Europe at the time.

Behind this remarkable technical process was an even more remarkable process of confrontation between the Westernising state and Japanese tradition. The problem of the repair and preservation of Japan's traditional architectural treasures forced the Meiji government to come to terms with its Japanese heritage. The structural crisis of the Daibutsuden occurred when the government and all who were seen as 'progressive' were concerned with Westernisation, so that Japanese traditions, many of them still relevant, were abandoned in the frantic pursuit of things foreign. Even the master carpenters who had created Japanese architecture were now deemed by the Meiji state to be ancillary to the new breed of Japanese 'architect'. A wedge was being driven into the hitherto organic process of design and construction, with master carpenters downgraded to the humble status of

manual workers while the government sponsored the development of a Western-style architectural profession to replace them in service to their new political ends.

In an age of systematic construction of Western-style buildings, the sagging, rotting, leaking Daibutsuden cried out for attention like an abandoned old man. Only after a long and difficult re-evaluation of the place of tradition in the modern technological world of a Westernising Japan was it eventually rehabilitated by the new state.

At the outset it had not been the intention of the Meiji leaders to abandon long-established traditions so completely. Their aim had been modernisation rather than whole-scale Westernisation, summed up in the words of Sakuma Shōzan's slogan 'Eastern ethics and Western science' (*Tōyō no dōtoku, seiyō no gakugei*). Consistent with this broad objective, traditional culture was to be protected by the new government. As early as 1871 the Dajōkan issued an edict ordering temples and shrines to help in the compilation of a national register of important buildings and art treasures. The process ground to a halt in the face of the more radical Westernising priorities of 'civilization and enlightenment'. Japan plunged headlong into what we would now call a development boom in which Westernisation was to be achieved irrespective of the cost to traditional culture and civilization. It was partly the insistence of foreigners like Ernest Fenollosa, the wealthy Boston art connoisseur who had arrived in Japan in 1877, and the perplexing problems thrust on them by German architects who insisted on using traditional Japanese architectural features for their state commissions, which forced reappraisal of official attitudes. After 1885 the Ministry of the Interior began making appropriations for the preservation of temples and shrines. A number of significant ancient buildings in the Kyoto-Nara area were repaired, including the Kondō of Tōshōdaiji, the Five Storey Pagoda of Daigoji, and the Hondō of Kiyomizudera.⁶⁰ Initially the funds for repairs were allocated through the Kunai-shō, but in 1888 a *Rinji zenkoku hōmotsu torishirabe-kyoku* ('Provisional Bureau for Investigation of National Treasures') was established within the Imperial Household Ministry, marking the consolidation of government preservation and restoration activities.

With the enactment of the first systematic laws for preservation of historically significant art and architecture in 1897, these activities were rationalised. The laws were formulated under the guidance of Itō Chūta, who was to play an important role in the restoration of the Daibutsuden. The *Koshaji hozonhō*, or 'Law for the Preservation of Old Shrines and Temples' was promulgated on 5 June 1897 (Law Number 49) in order to protect religious buildings and the works of art they contained. The 20 articles of this law established a system of providing national government financial support for preservation and restoration of buildings and other works of art. Application for financial support was to be made to the Minister of Internal Affairs (Article One) for works of architecture and related art of historical uniqueness and exceptional quality (Article Two). Responsibility for the process of preservation and restoration was to be in the hands of local officials (Article Three). Restoration work was to be financed directly from the national coffers (Article Eight). Responsibility for implementation of the law was vested in the Ministry of the Interior but in 1914 was transferred to the Ministry of Education. This law

was followed on 15 December of the same year, 1897, by a second law giving supplementary provisions for designating architecture and art as *kokuhō* or 'national treasures' (Law Number 420).⁶¹ Together these two laws of June and December 1897 established a comprehensive system for designating and protecting cultural properties which was to be the foundation of the modern preservation of Japan's artistic and architectural heritage.

The restoration of the Daibutsuden, beginning in June 1906 and ending in May 1913, shortly after the death of the Emperor Meiji, was carried out under the provisions of these laws. However it would be incorrect to interpret this as a case of careful formulation of a cultural properties preservation policy followed by its orderly enactment at Tōdaiji. The technical requirements of the building process dictated policy as much as policy was to govern building. The sequence of events leading to the construction work, which is recorded in detail in the official record of the restoration published by Tōdaiji in 1915,⁶² shows that the national government laws for preservation of temples and shrines evolved only in response to the financial and architectural crisis posed by the actual condition of the Daibutsuden. The key preservation laws were formulated during the course of nearly a decade-long debate between the chief abbot of Tōdaiji and the national government concerning the importance of the building, and ways and means of funding its restoration. A desperate letter from the temple authorities, sent directly to the Minister of Internal Affairs in 1892, pleaded for financial assistance. It cited the unique historical significance of the building and reminded the government of the major role played by eminent figures in Japanese history, from Emperor Shōmu to Tokugawa Tsunayoshi, as patrons in past rebuilding projects.⁶³

The first detailed estimate of the cost for restoring the Daibutsuden, made in 1891, was for a total of 32,800 *yen*. The temple had been able to raise a mere 4,600 *yen* during its concerted fund-raising activities over the preceding six years. Spiralling inflation caused by the Sino-Japanese and Russo-Japanese Wars, together with the high cost of the new technology required, meant that construction costs reached a final figure of 728,429 *yen*, 36 *sen* and 7 *rin*.⁶⁴ This was a considerable sum in contemporary terms but modest when compared to construction expenditure on the Akasaka Palace and Tokyo Station. The total preservation and restoration budget of the national government under the 1897 laws was initially 150,000 *yen* but this rapidly increased to 200,000 *yen* per year, of which three-quarters was devoted to building projects.⁶⁵ From this budget Tōdaiji received a regular annual payment of 30,000 *yen* for five years from the inception of the law, as well as additional special grants in response to specific requests.⁶⁶

The rebuilding of the Daibutsuden, therefore, contributes an alternative picture of the relationship between authority and architecture to our understanding of the Meiji period. The agonising process of financing its restoration, which spanned much of the era, acted as a catalyst for reappraisal of official priorities, leading to the establishment of a national system for protection and preservation of cultural properties. This was a case of the authority of traditional architecture wearing down the power of the modern state.

Continuity and Change at the End of Meiji

By the end of the Meiji period and the completion of the Akasaka Palace and Tokyo Station, Japan had become a fully competent practitioner of international architecture. Moreover it contributed its own particular skills in banded red-brick and sophisticated earthquake-proof framing to the family of Second Empire Neo-Baroque buildings which were to be found, in cities as far apart as Paris and Melbourne, Washington and London, as the universal architectural language for expressing national authority.

The driving force behind the adoption of Western architectural styles was the authority of the Japanese state working in tandem with the power of the industrial and commercial sectors. The architectural achievement of the Meiji period is a direct measure of the determination of the leaders of government and industry to modernise their nation along Western lines, as well as a yardstick of their ability to mobilise and manage human and material resources in the construction of new buildings and cities. The key to this success was a coherent programme in Western architectural training and the selective use of competent foreign experts in the key professions of architecture and engineering. The experts, only some of whom it has been possible to discuss here, were to train the first Japanese architects who then continued to learn 'on the job' as they built the masterpieces of Western-style architecture in the later years of the nineteenth and the first decades of the twentieth century.

We have seen that the official desire for a new architecture of authority came into conflict with that most articulate of traditional architectural symbols, the *karahafu*, when the design for new civic buildings was concerned. The cusped gables of castles and gateways commanded the attention of the German architects and engineers but was spurned by the Japanese themselves. However, it is likely that the emphasis upon roof size and shape in traditional architecture informed the Japanese preference for high pitched roofs and curved cupolas in their new Western-style architecture. Similarly the fondness for heavily accented Neo-Baroque entablatures, replete with curved mouldings, fulfilled the need for gable grandeur created by an almost subliminal awareness of the grace and expressive power of traditional gables. The Classical orders as interpreted in the Baroque idiom were entirely consistent with the traditional pillar and beam system in Japanese architecture. Both the Japanese and the Classical traditions were orders in the same sense; they were systems of design based on modules translated by ratios into a comprehensive set of measurements determined by proportions, and ultimately, by the propriety of status. This greatly facilitated their adoption into the Japanese architectural vocabulary of authority and eased the transition into the iconoclastic modernism of the twentieth century.

Tange Kenzō's Tokyo Monuments

10

New Authority and Old Architectural Ambitions

Time has not yet imposed its own interpretation on the staggering succession of events and changes which have occurred since the end of the Allied Occupation in 1952. Study of the recent past presents its own peculiar problems and opportunities. An historical perspective, using the focus of the relationship between architecture and authority, uncovers much in contemporary Japan which is consistent with the past, particularly with the experience of buildings as a projection of identity and authority and as the built environment in which the power of the state and of big business operates.

From an historical viewpoint, the second half of the Shōwa era, from the mid-1950s to 1989, could be called a new Nara period of modernisation using foreign prototypes. It may equally be described as a new Momoyama period, an epoch in which the resources of the state and the nation were mobilised to rebuild after war and to attain national stability and international stature. This era may also be likened to the Meiji period, as an era of consciously planned, government-engineered modernisation and Westernisation.

There have been profound changes to Japanese government and society in the 50 years since the end of the Pacific War in 1945. The trends over this period are well known and need to be only briefly touched on here. The immediate postwar era was characterised by a grim struggle to rebuild cities devastated by bombing raids. The Allied occupying powers redefined Japanese state authority. The emperor, in their terms, became a mere symbol of the sovereignty of the people and, in the same way that the Charter Oath at the beginning of the Meiji period had exhorted the people to abandon evil customs of the past, the Occupation authorities reworked political, educational and social institutions to abandon custom and tradition in favour of political democracy and economic capitalism in an all-embracing social engineering programme.

The Occupation was followed in the 1950s by recovery stimulated by the Korean War. This culminated in the 'economic miracle' of the 1960s during which the GNP doubled, but at a cost of environmental pollution and uncontrolled urban growth. The typical family dreamed of home ownership, a dream fuelled by American influence and the desire of the 'salaryman' middle class to share in the new prosperity of great industry and corporations.

The 1970s were characterised by the economic shocks caused by the oil crises of 1973 and 1978 which shattered the illusion of limitless progress of

- (1804–1818) gives names, titles, coats of arms, status, and other details for purposes of official protocol.
- 25 Examples include the Nandaimon and Tegaimon of Tōdaiji in Nara, the Tayasumon and Sakuradamon of Edo Castle, the Karamon of Nishi Honganji, and gateways to the residences of lower ranking samurai in the castle towns of Hagi in Yamaguchi prefecture and Matsushiro in Nagano prefecture.
 - 26 27th day, 3rd month, 1772. *Nihon zaisei keizai shiryō* (op. cit. note 22), vol. 4, p. 748.
 - 27 *Bunka bukan* (op. cit. note 24), vol. 3, p. 137.

9 Building the Meiji State: The Western Architectural Hierarchy

- 1 David John Lu (ed.) *Sources of Japanese History*, New York: McGraw-Hill, 1974, vol. 2, p. 36.
- 2 The most influential projects were George Gilbert Scott's St Pancras Station and Hotel (London, 1865–1875) and William Burges's competition design for the Royal Courts of Justice (London, 1866).
- 3 The 'Second Empire Style' is typified by L-T-J Visconti and Hector-Martin Lefuel's massive additions to the Louvre, the Pavillons Turgot, Richelieu and Colvert (1850–1857) and Charles Garnier's Opéra (1861–1874).
- 4 Yoshikawa Seiichi and Mizuno Shintarō (eds) *Tōkyō eki to Tatsuno Kingo: ekisha no naritachi to Tōkyō eki no dekiru made*, Tokyo: Higashi Nihon ryōkaku tetsudō, 1990, p. 131.
- 5 'Public subscription' in reality meant a coalition of business and political interests dedicated to forging closer associations with the imperial institution. There was a similar trend in Osaka, as well as Tokyo, with the mayor and the head of the house of Sumitomo forming a committee in 1900 to build a park on Nakanoshima to commemorate the Crown Prince's wedding. See Hara Kei, *Hara Kei nikki*, Tokyo: Fukumura shuppan, 1965, vol. 1, p. 293.
- 6 Kokushi daijiten henshū iinkai (ed.) *Kokushi daijiten*, Tokyo: Yoshikawa kōbunkan, 1985, s.v. 'oyatoi'.
- 7 Muramatsu Teijirō (ed.) *Nihon no kenchiku-Meiji, Taishō, Shōwa*, 10 vols, Tokyo, Toppan insatsu, 1983, vol. 2, pp. 101–102.
- 8 William A. Coles (ed.) *Architecture and Society: Selected Essays of Henry Van Brunt*, Cambridge, Mass.: Belknap Press of Harvard University Press, 1969, p. 177.
- 9 Yoshikawa and Mizuno (op. cit. note 4), p. 129.
- 10 Onogi Shigekatsu, *Meiji yōfū kyūtei kenchiku*, Tokyo: Sagami shobō, 1983, pp. 162–170.
- 11 See Francis Haskell, *Patrons and Painters. A Study in the Relations Between Italian Art and Society in the Age of the Baroque*, London: Chatto and Windus, 1962.

- 12 See Roger F. Hackett, *Yamagata Aritomo in the Rise of Modern Japan (1838–1922)*, Harvard East Asian Series 60, Cambridge, Mass.: Harvard University Press, 1971.
- 13 Yoshikawa and Mizuno (op. cit. note 4), pp. 130–131.
- 14 His appointment was reported in the *Kokumin shinbun* of 19 August 1898. Nakayama Yasuaki (ed.) *Shinbun shūsei Meiji hennenshi*, Tokyo: Zaisei keizai gakkai, 1936, vol. 11, p. 42. *Shinbun shūsei Meiji hennenshi*, vol. 10, p. 275.
- 15 Muramatsu (op. cit. note 7), p. 164. See also David B. Stewart, *The Making of a Modern Japanese Architecture, 1860 to the Present*, Tokyo and New York: Kodansha International, 1987, pp. 59–62.
- 16 Muramatsu (op. cit. note 7), pp. 161–62.
- 17 Interview with Katayama Tōkuma, *Nihon shinbun*, 17 May, 1907. *Shinbun shūsei Meiji hennenshi* (op. cit. note 14), vol. 13, p. 257.
- 18 Henry Russell Hitchcock, *Architecture: the Nineteenth and Twentieth Centuries*, (4th edn), Harmondsworth, Mdd: Penguin Books, 1977, p. 169.
- 19 Tatsuno told Katayama that 'in England you would be knighted for this meritorious deed. This one building is sufficient to earn you immortality'. Cited in Onogi Shigekatsu (op. cit. note 10), p. 166.
- 20 Kunai-chō (ed.) *Meiji Tennōki*, Tokyo: Yoshikawa kōbunkan, 1974, vol. 10, p. 346.
- 21 Tokyo Station was seriously neglected as an historical building until the 1980s when it was threatened by redevelopment plans for the centre of Tokyo. David Stewart, for example, dismisses it by saying that 'nothing need be said except that its facade *must* be preserved as both a record of Tatsuno's period style and an element of townscape'. Stewart (op. cit. note 15), p. 54. Dallas Finn's *Meiji Revisited. The Sites of Victorian Japan*, Tokyo and New York: Weatherhill, 1995, published as this study went to press, includes a useful section on the station building as well as featuring it on the front cover.
- 22 Japanese Government Railway, Japan Travel Bureau, *Pocket Guide to Japan*, 1925, Tokyo: Japan Hotel Association, 1925, pp. 118–119.
- 23 There is no mention of a relationship with Amsterdam Station in any newspaper accounts or guide books before 1945. For a detailed rebuttal of anything other than the general similarity of most railway station buildings of this turn of the twentieth century genre, see Aart Oxenaar, 'Amsterdam Central and Tokyo Central—different members of the same family', in Yoshikawa Seiichi and Mizuno Shintarō (eds) *Tōkyō eki to Tatsuno Kingo. Ekisha no naritachi to Tōkyō eki no dekiru made*, Tokyo: East Japan Railway Company, 1990, pp. 22–29.
- 24 Fujimori Terunobu, *Meiji no Tōkyō keikaku*, Tokyo: Iwanami shoten, 1982, pp. 209–214.
- 25 The district was named 'Marunouchi' in 1929.
- 26 *Jiji shinpo*, 18 December 1914. Taishō nyūsu jiten hensan iinkai (ed.) *Taishō nyūsu jiten*, Tokyo: Mainichi komyunikeshonzu, 1986, vol. 1, pp. 562–563. Yoshikawa and Mizuno (op. cit. note 4), p. 70.

- 27 Typical are the two murals added to the monumental entrance hall of Strasbourg central railway station in 1883 depicting 'an idealised German view of relations with Alsace ... a dozen years after the forced incorporation of Alsace into Bismarck's New German Reich'. See James Wilkinson, 'The Uses of Popular Culture by Rival Elites: The Case of Alsace, 1890-1914', *History of European Ideas*, Oxford: Pergamon Press, 1990, vol. II, p. 606.
- 28 E. H. Harriman, the railway magnate, wanted a Korean concession. See Mikiso Hane, *Japan. A Historical Survey*, New York: Charles Scribner's Sons, 1972, pp. 377-378. Hackett (op. cit. note 12), p. 168.
- 29 See further, Peter Duus *et al.*, (eds) *The Japanese Informal Empire in China, 1895-1937*, Princeton: Princeton University Press, 1989, pp. 220, 344.
- 30 *Tokyo Asahi shinbun*. 19 December 1914. *Taishō nyūsu jiten* (op. cit. note 26), p. 563
- 31 The governing clique at the time comprising the former imperial courtier Iwakura, and former samurai from the outer domains, Itō, Ōkubō, Ōkuma and Matsukata, were all enthusiastic supporters of an extended steam railway system. Nevertheless, railway construction had proven difficult, with only some 130 kilometres of tracks completed in the first decade. The Kobe-Osaka link followed the Yokohama one in 1874 and three years later it reached Kyoto. The next link with Ōtsu, built entirely by Japanese engineers, was opened in 1880, and though limited in distance the system as completed to that date was already of great importance to the developing economy. In the same year two million passengers were carried on the Shinagawa-Yokohama run and three million on the Kobe-Osaka link. See further, Thomas C. Smith, *Political Change and Industrial Development in Japan: Government Enterprise 1868-1880*, Stanford: Stanford University Press (rev. edn), 1965, p. 43 ff.
- 32 Nakajima Hisao, 'Kanchō shūchū keikaku to chūō teishajō', in Yoshikawa and Mizuno (op. cit. note 4) p. 43.
- 33 Ibid., p. 44.
- 34 Horiuchi Masaaki, 'Maboroshi Tōkyō eki keikaku', in Yoshikawa and Mizuno (op. cit. note 4), pp. 46-59.
- 35 Fujimori (op. cit. note 24), pp. 228-247.
- 36 Tatsuno was to continue to grapple with the problem of the Diet Building until his death in 1919. He also served as a member of numerous committees which failed to reach agreement on the desirable form of the central building of Japanese elected government.
- 37 The drawings were exhibited at the Tokyo Station Gallery (11/90-1/91).
- 38 Muramatsu Teijirō, *Nihon kindai kenchiku gijutsushi*, Shinkenchiku gijutsu sōsho, no. 8, Tokyo: Shōkokusha, 1976, pp. 68-69.
- 39 Yoshikawa and Mizuno (op. cit. note 4), pp. 55-58.
- 40 Fujimori Terunobu, 'Akarenga monogatari: dōmu ni kaketa gishitachi', *Hokkaidō supesharu*, NHK Sapporo, 4 July, 1988.

- 41 Tōkyō suteshon gyararii (ed.) *Tōkyō eki to renga. JR Higashi Nihon de meguru Nihon no renga kenchiku*, Tokyo: Higashi Nihon ryōkaku tetsudō, 1988, p. 48.
- 42 Ibid. p. 49.
- 43 Harold S. Williams, *Tales of the Foreign Settlements in Japan*, Rutland Vermont and Tokyo: Charles E. Tuttle, 1958, p. 77. Williams also notes that thousands of Glasgow bricks found their way to Japan as ballast in ships.
- 44 Muramatsu (op. cit. note 38), pp. 55-57.
- 45 Ibid., pp. 48-59. It was only from 1897, ten years after its foundation, that the company started making a profit. This would have been due to the series of late Meiji official projects for which it supplied brick.
- 46 Examples include the chapel and classrooms built at Dōshisha University between 1884 and 1894.
- 47 Paul Akamatsu, *Meiji 1868, Revolution and Counter-revolution in Japan*, London: George Allen and Unwin, 1972, p. 286.
- 48 Cost as reported in *Jiji shinpo*, 2 October, 1914. *Taishō nyūsu jiten* hensan iinkai (ed.) *Taishō nyūsu jiten*, Tokyo: Mainichi komyunikeshonzu, 1986, vol. 1, p. 562.
- 49 Kazushi Ohkawa and Henry Rosovsky, 'A Century of Economic Growth', in William Lockwood (ed.) *The State and Economic Enterprise in Japan*, Princeton: Princeton University Press, 1965, pp. 77-78.
- 50 Letter to Hirai Seiichirō, 1907, Archives: Department of Architecture, University of Tokyo.
- 51 See Zaidan hōjin bunkazai kenzōbutsu hozon gijutsu kyōkai, *Kyū Tōkyō Ongakkō Sōgakudō ichiku shūri kōji hōkokusho*, Tokyo: Shin'yōsha, 1987.
- 52 Edward S. Morse, *Japan Day by Day (1877, 1878-79, 1882-83)*, Boston and New York: Houghton Mifflin Company, and Cambridge: Riverside Press, 1917, vol. 1, pp. 282-283.
- 53 Muramatsu Teijirō, *Nihon kindai kenchiku no rekishi*, Tokyo: NHK bukkusu, 1977, pp. 116-117.
- 54 *Précis des leçons d'architecture données à l'École Polytechnique* (2 vols), 1802-1805. See further Henry Russell Hitchcock, (op. cit. note 18), p. 47.
- 55 See further William H. Coaldrake, 'The Architecture of Tōdai-ji', in John M. Rosenfield *et al.* (eds), *The Great Eastern Temple. Treasures of Japanese Buddhist Art from Tōdai-ji*, Indiana and Chicago: The Art Institute of Chicago in association with Indiana University Press, 1986, pp. 42-47.
- 56 This addition may have been prompted by use of a *karahafu* on the Daibutsuden built in Kyoto by the Toyotomi.
- 57 See further *Nara rokudaiji taikan*, Tokyo: Iwanami shoten, 1968-1972, vol. 9, Tōdaiji 1.
- 58 Tōdaiji Daibutsuden Shōwa daishūri shūri iinkai (eds) *Kokuhō Tōdaiji Kondō (Daibutsuden) shūri hōkokusho*, Nara: Meishinsha, 1980, vol. 1, p. 37.

- 59 Ibid. p. 36.
- 60 See Bunkazai hogo iinkai jimukyoku kenzōbutsuka (Itō Nobuo), 'Bunkazai (kenzōbutsu) hogo jigyo no gaiyō', *Kenchiku zasshi*, December, 1959, pp. 1–2.
- 61 On the two laws see Bunkazai hogo iinkai (ed.) *Bunkazai no ayumi*, Tokyo: Bunkazai hogo iinkai, 1960, pp. 473–74, 476–77.
- 62 Washio Ryū and Hiraoka Myōkai (eds) *Daibutsu oyobi Daibutsudenshi*, Nara: Nara Daibutsu kyōkai kinen hakkō, 1915, pp. 85–120.
- 63 Quoted in full in *ibid.*, pp. 91–94.
- 64 *Ibid.*, Appendix, p. 5.
- 65 See Bunkazai hogo iinkai jimukyoku kenzōbutsuka (Itō Nobuo) (op. cit. note 60), p.1.
- 66 Washio and Hiraoka (op. cit. note 62), p. 99.

10 Tange Kenzō's Tokyo Monuments: New Authority and Old Architectural Ambitions

- 1 Daigoru Yasukawa, 'Message from Tokyo Olympic Committee', *Contemporary Japan*, vol. XXVII, no. 4, October, 1963, p. 641.
- 2 Kenzō Tange, 'Recollections: Architect Kenzō Tange', *The Japan Architect*, No. 341, September, 1985, p. 6.
- 3 *Ibid.*
- 4 Udo Kulterman (ed.) *Kenzō Tange 1946–1969: Architecture and Urban Design*, New York, Washington and London: Praeger, 1979, p. 200.
- 5 *Ibid.*, pp. 200–204.
- 6 *The Japan Architect* (op. cit. note 2)
- 7 *Ibid.*
- 8 See data in *The Japan Architect*, New Series No. 5, 1992, pp. 88–93, 244.
- 9 *The Japan Architect*, New Series No. 3, 1991, p. 31.
- 10 Figures from the Ministry of Finance, as reported in the *Asahi shinbun*, 26 January 1991.
- 11 Official government land values are always lower than actual market value.
- 12 In addition to the cost of 1.57 billion *yen* for the buildings there was considerable cost incurred in the purchase and installation of office automation, landscaping of the surrounding area and the removal of records and equipment from the old government buildings at Yūrakuchō. The final cost was to be in the vicinity of 2.39 billion *yen*. It is not clear how this additional expense was underwritten but it was kept separate from the cost of constructing the buildings. See Sasaki Nobuo, *Tochō mo hitotsu no seifu*, Tokyo: Iwanami shinsho, 1991, p. 2.

11 Beyond Vanity and Evanescence

- 1 Kamo no Chōmei, *An Account of My Hut in 'Hōjōki'*, Donald Keene (comp. and ed.), *Anthology of Japanese Literature*, Tokyo and Rutland, Vermont: Charles E. Tuttle, 1956, pp. 196–199. On Kamo no Chōmei see further, Hilda Katō, 'The Mumyōshō of Kamo no Chōmei and its significance in Japanese literature', *Monumenta Nipponica*, vol. XXIII, nos 3–4, 1968, pp. 321–430.
- 2 *The Far East*, vol. 11, no. 1, June 1871, p. 10.
- 3 Chapter 2, section 5.
- 4 Matthew Arnold, *The Poems of Matthew Arnold 1840–1867, with an Introduction by Sir A. T. Quiller-Couch*, London: Humphrey Milford, Oxford University Press, 1913, p. 185.
- 5 Lewis Mumford, *The Culture of Cities* (rev. edn), New York and London: HBJ Books, 1970, p. 403.