



# Yoyogi Stadium

Handout

# Introduction



## Basic building information/ 基本資料

### Location/ 地點 :

2-1-1 Jinnan, Shibuya-ku, Tokyo, Japan/ 日本東京澀谷區神南 2-1-1

### Completed/ 完工年分 :

1964 (Because Olympics Games/ 東京奧運 )

### Duration/ 工程期 :

19 month (The original duration was 22 months/ 原定工程期為 22 個月 )

### The builders/ 建造者 :

Tange Kenzo (architect), Yoshikatsu Tsuboi(structural engineer), Uichi Inoue(structural engineer)

**Stakeholders/ 利益相關者 :** Olympic athletes and related individuals(1964,2021) ,Japanese citizens

### Owner/ 現任擁有者 :

Incorporated Administrative Institution Japan Sport Council/ 獨立行政機構日本體育協會

## Architect - Tange Kenzo

Kenzo Tange challenged Western modernists, emphasizing the overlooked element of roofs. His work focused on adapting the Katsura Imperial Villa's composition into the "Tange Module" for concrete construction and emphasizing unique roof forms. Post-WWII, Tange integrated Western modernism into Japanese government buildings, diverging by championing precast concrete and industrialized techniques. His influence extended to urban development, proposing technology-driven solutions for Tokyo's overpopulation in

the 1960s. Tange's significance lies in shaping government decisions and urban development policies through innovative ideas.

## 建築師 - 丹下健三

丹下強調被忽視的屋頂元素。他曾將桂離宮的垂直水平構圖適應為混凝土建築的「丹下模組」，同時強調獨特的屋頂形式。在二戰後，丹下將西方現代主義融入日本政府建築，通過支持預製混凝土和工業化技術而走上不同道路。他的影響力擴展到城市發展，提出在 1960 年代應對東京人口過剩的技術驅動解決方案。田邊的重要性在於透過創新思想塑造政府決策和城市發展政策。

## Structural engineer - Yoshikatsu Tsuboi

The first encounter between Tsuboi and Tange dates back to the 1940s. Tange first met Tsuboi when he was attempting to create a small shell structure for his proposal for the Hiroshima Children's Library. Following this project, they collaborated on several shell structures of various scales. Eventually, they achieved an unprecedented feat by realizing the suspended roof structure for the Yoyogi National Stadium.

## 結構工程師 - 坪井義勝

坪井和丹下的首次相遇可以追溯到 1940 年代。當時，丹下正在嘗試為廣島兒童圖書館的提案創建一個小型曲面薄殼結構，而在這個項目中，他首次遇到了坪井。在這個項目之後，他們合作開展了多個不同規模的拱殼結構項目。最終，他們取得了一項前所未有的成就，實現了代代木國立競技場的懸掛屋頂結構。



# Understand the place

## Site Environment Description

Yoyogi National Stadium is situated in the center of Shibuya Ward in Tokyo, with an elevation of approximately 34 meters, and going further uphill leads to Meiji Shrine. The area around Shibuya station to the south is at an elevation of around 15 meters, creating a gradual slope from the stadium to Shibuya Station.

Within a one-kilometer radius, Harajuku station is to the northeast, and Shibuya station, a major terminal for several railroads, is to the south. The area to the north of the stadium features green spaces such as Meiji Jingu (Naien) and Yoyogi Park. The Shibuya station area, to the south of the stadium, has undergone revitalization. The NHK (Nippon Hoso Kyokai) Broadcasting Center adjoining the stadium on the west is planning to construct a new building from 2020 through 2036.

Additionally, several large-scale construction projects are planned for the area through 2036, creating a diverse array of spaces around the stadium that coexist, forming a unique landscape of both vibrancy and tranquility.

## 基地環境

代代木國立競技場位於東京澀谷區中心，海拔約 34 米，往上走則可到達明治神宮。澀谷站周圍的區域往南約海拔 15 米，從競技場到澀谷站形成了一個漸斜的坡道。

在一公里半徑內，原宿站位於東北方向，而澀谷站，作為幾條鐵路的主要終點站，位於南方。競技場北部的區域有綠地，如明治神宮（內苑）和代代木公園。競技場南部的澀谷站區域經歷了復興。競技場西側毗鄰的 NHK（日本放送協會）廣播中心計劃在 2020 年至 2036 年間建造一座新建築。

此外，該區域計劃於 2036 年之前進行多個大型建設項目，營造出競技場周圍多樣化的空間，形成了充滿活力和寧靜的獨特景觀。



Meiji Shrine  
(The top)

Yoyogi  
Stadium  
34m

Shibuya  
station  
15m

## History

### 19th century - 1910s

In the late Edo period, Yoyogi was a border area of Edo City with samurai residences. It later became farmland seized by the Meiji government and then an Imperial Estate with a garden visited by Emperor Meiji. In 1909, the Yoyogi Military Drill Ground was established, which now includes Yoyogi National Stadium and Yoyogi Park.

### 1910s - 1945

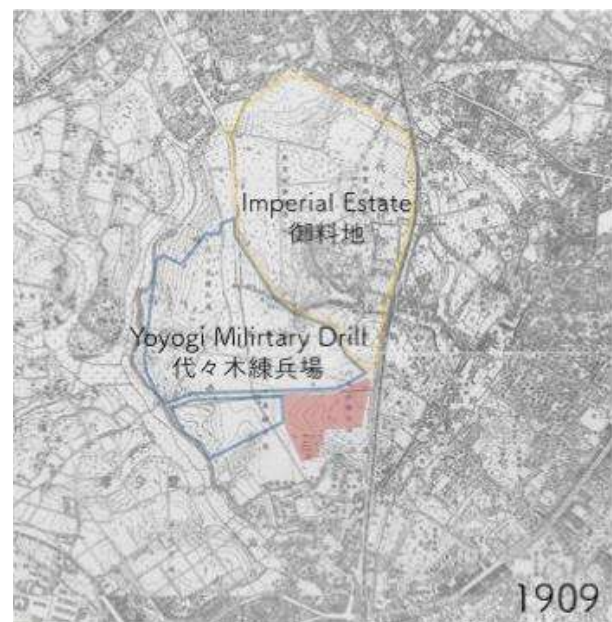
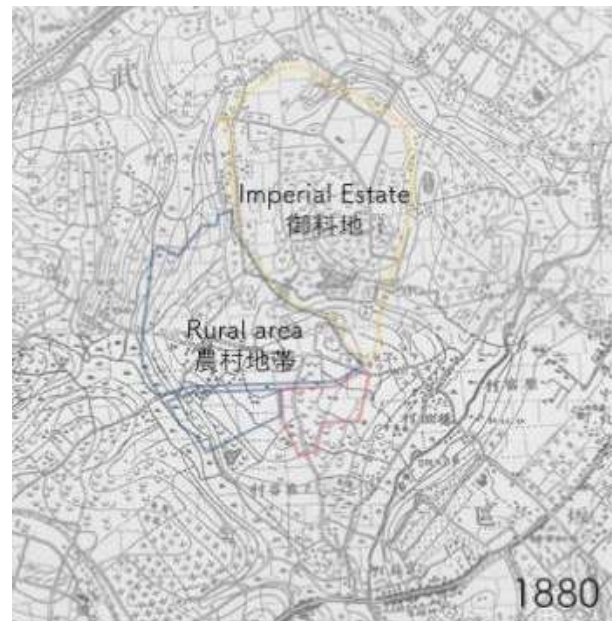
Following the deaths of Emperor Meiji in 1912 and Empress Shoken in 1914, a plan to establish Meiji Jingu in Tokyo emerged. It was divided into two parts: Naaien in Yoyogi, featuring shrine buildings in an artificial forest, created in 1920 on the former Minami-toyoshima Imperial Estate site; and Gaien in Aoyama, established in 1926 on the former Aoyama Military Drill Ground site, housing a memorial museum and sports facilities. The connecting passages, including Omote-sando, were designated Scenic Zones to preserve the landscape. Yoyogi and Aoyama became sacred places in Tokyo.

### 1945 – 2018 (After WWII and Olympics Games in 1964)

In Meiji Jingu (Naaien), the main shrine building was destroyed during air raids in April 1945 at the end of World War II. Despite severe fiscal challenges post-war, Meiji Jingu received significant donations, leading to the reconstruction of the main shrine building in 1958.

Regarding the land used for military drills, it was confiscated by the U.S. Armed Forces and converted into a housing complex known as Washington Heights. With the Tokyo Olympics in 1964, this area was returned to the Japanese government. Consequently, the Yoyogi National Stadium was constructed in the southwestern section, while the remaining space was repurposed as an athlete's village, reusing U.S. Army housing. Three years after the Olympics, in 1967, Yoyogi Park was established on the former athlete's village site, and the NHK Broadcasting Center was constructed in its southern part. Since then, no other large-scale developments have taken place in Yoyogi.

As indicated above, Meiji Jingu (Naaien), the Yoyogi National Stadium, and Yoyogi Park were established in the 20th century, and the Yoyogi district has evolved into a historical and cultural area, providing valuable green spaces and public areas in Tokyo.





## 基地歷史

### 19 世紀 - 1910 年代

在江戶時代末期，代代木是江戶城的邊緣區域，有武士的住宅。後來成為明治政府沒收的農田，然後是一個帝國莊園，其中有一座由明治天皇參觀的花園。1909 年，成立了代代木軍事演習場，現在包括代代木國立競技場和代代木公園。

### 1910 年代 - 1945 年

隨著明治天皇於 1912 年和淑憲皇后於 1914 年去世，一項在東京建立明治神宮的計劃浮出水面。它分為兩個部分：代代木的內苑，於 1920 年在原南豐島帝國莊園遺址上建立，以人工森林為特色的神社建築；青山的外苑，於 1926 年在原青山軍事演習場遺址上建立，設有紀念博物館和體育設施。連接通道，包括表參道，被指定為風景區，以保護景觀。代代木和青山成為東京的神聖之地。

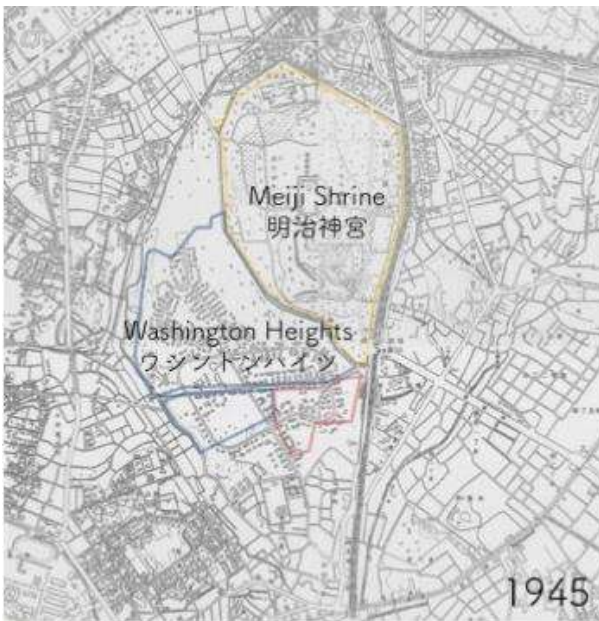
### 1945 年 - 2018 年（二戰後和 1964 年奧運會）

在明治神宮，主神殿在 1945 年四月的二戰末期的空襲中被摧毀。儘管戰後面臨嚴重的財政挑戰，明治神宮收到了大量的捐款，導致在 1958 年重建了主神殿。

至於用於軍事演習的土地，被美國武裝部隊沒收，轉變為一個被稱為華盛頓高地的住宅區。隨著 1964 年東京奧運會，這個區域歸還給了日本政府。因此，代代木國立競技場在西南部建成，而其餘的空間被重新用作運動員村，重複使用美軍住宅。

奧運會後的三年，即 1967 年，代代木公園在原運動員村的地點建立，並在其南部建造了 NHK 廣播中心。此後，代代木未發生其他大規模的發展。

如上所述，明治神宮、代代木國立競技場和代代木公園在 20 世紀建立，代代木地區演變成一個歷史和文化區域，在東京提供寶貴的綠地和公共區域。



## The site selection process - With urban development

### Restoring Confidence in the Yamato People After War

#### The Olympics Driving Urban Development

Economically, transportation infrastructure development was crucial for Japan's productivity, both before and after the war. The military drill site served as a venue for displaying military equipment, highlighting productivity. Post-war economic rehabilitation saw increased vehicle traffic, necessitating infrastructure development that contributed to Japan's high economic growth. The Olympics played a role in reshaping the urban structure and developing radial and loop roads.

The relationship between large facility construction and transportation infrastructure was evident when the athlete's village site changed to Yoyogi. The Tokyo Metropolitan Government demanded the completion of key roads and the establishment of Yoyogi Park before the Olympics. Various stakeholders vied for new uses of the former Yoyogi Military Drill Ground, leading to disputes and impacting urban planning decisions. Despite these challenges, the former military site in the city center, Yoyogi field, has been transformed into a forest park, providing a unique character distinct from other parts of Tokyo.

## 選址過程與發展

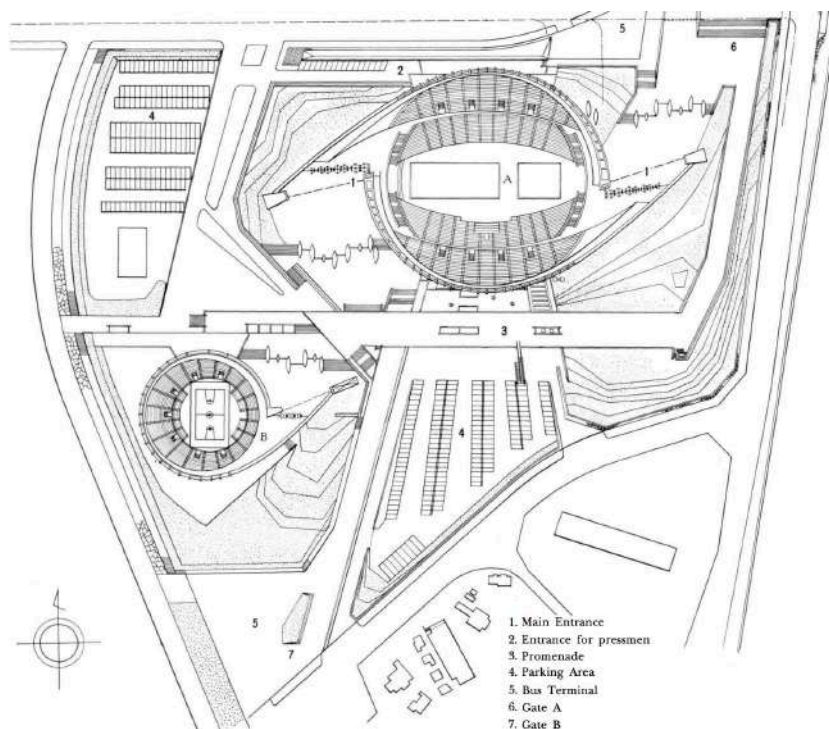
### 在戰後重新找回大和民族的自信

#### 奧運推動城市發展

在經濟上，交通基礎設施的發展對於日本的生產力在戰前和戰後都至關重要。軍事演習場作為展示軍事裝備的場所，突顯了生產力。戰後的經濟復甦帶來了增加的車輛交通，需要基礎設施的發展，這有助於日本實現高經濟增長。

奧運在重新塑造城市結構和發展放射狀和環狀道路方面發揮了作用，當運動員村的用地轉為代代木時，大型設施建設和交通基礎設施之間的關係變得顯而易見。東京都政府要求在奧運之前完成關鍵道路的建設，並在代代木興建代代木公園。

各方利益攸關者爭奪對原代代木軍事演習場的新用途，引發爭端，影響城市規劃的決策。儘管面臨種種挑戰，位於市中心的舊軍事用地，代代木地區，已經轉變為一個森林公園，呈現出與東京其他地區截然不同的獨特風貌。





# Statement of significance

## The values of the Stadium

The 5 Key Values of Yoyogi National Stadium are:

1. Dialogue between Modernism and Japanese Tradition
2. Transition from Life (Sports Arena) to Death (Military Base)
3. Urban Core Planning
4. Fusion of Structure and Space
5. Futuristic Urban Design

## 代代木體育場的價值

代代木國立競技場的五大核心價值：

1. 現代主義與日本傳統的對話
2. 從生命（運動場）到死亡（軍事基地）的過渡
3. 城市核心規劃
4. 結構與空間的融合
5. 未來主義的城市設計

## Historic Value

The site engraves the memory of the significant events the nation experienced over the twentieth century:

1. The Japanese army's expansion into the Eurasian continent.
2. The U.S. military's occupation.
3. International cooperation and Japan's hosting of the Olympic Games.
4. A site for cutting-edge cultural and artistic activities. The Stadium and its site symbolize the peaceful nationhood and economic recovery that post-war Japan aimed to achieve.

## 歷史價值

代代木體育場銘刻了日本在二十世紀經歷的重大事件的記憶：

1. 日本軍隊對歐亞大陸的擴張。
2. 美軍的佔領。
3. 國際合作以及日本主辦奧運會。
4. 成為都市中先進文化和藝術活動的場地。這個競技場及其場地象徵了戰後日本致力於實現的和平國家和經濟復甦。



## Architectural Values

1. Urban core: In the paper, “The Core: Its Social and Historical Background,” Tange discussed how a population-drawing urban core should be in modern societies and considered the history of Japan’s urban spaces. It is representative of Tange’s work on urban cores, materializing how to take advantage of topographical-level differences.
2. In the context of the “tradition” debate
3. Silhouettes and sublime view: Large roofs with stately, shallow curves were important elements of the Japanese style of architecture. The silhouette of Yoyogi Stadium appears to be a heavy roof and light stands, which makes it an outstanding example of twentieth-century architectural cityscapes.
4. The best example of the design-structure-facility integration from the 1960s.

## 建築上的價值

1. 城市核心：在《核心：其社會和歷史背景》中，丹下討論了現代社會中應該如何建立一個吸引人口的城市核心，並考慮了日本城市空間的歷史。這代表了丹下對城市核心的研究，具體體現了如何利用地形層次差異的思想。
2. 現代建築之於「傳統」的辯論
3. 輪廓和崇高景觀：宏偉而淺曲的大屋頂是日本建築風格的重要元素。代代木競技場的輪廓呈現出一個沉重的屋頂和輕盈的看台，使其成為二十世紀建築城市風景的優秀範例。
4. 在1960年代設計結構與場所融合的最佳例證。

## Modern Materials and Techniques Interpreting Traditional Roofs

Inside the gymnasiums, unique design features include triangle-shaped ceilings resembling the Chinese character for eight “八” and top lighting. Kenzo Tange applied this design motif in other projects, such as the WHO Headquarters Competition in 1961, Tokyo Plan 1960 residential buildings in 1961, and St. Mary’s Cathedral in 1964. In the case of Yoyogi Stadium, this effect was achieved through its suspended roof structure, offering visitors a glimpse of the celestial world, symbolizing the boundary between life and death, which is one of the central themes mentioned earlier.

## 現代技術詮釋傳統屋頂

在體育館內，獨特的設計特點包括類似中文“八”的天花板和頂部採光。丹下在其他項目中也應用了這種設計元素，例如1961年的世界衛生組織總部競賽、1961年的東京計劃住宅建築，以及1964年的聖瑪利亞大教堂。對於代代木國立競技場而言，這種效果是通過其懸吊式屋頂結構實現的，為遊客提供了一瞥天上的世界，象徵著生與死之間的界限，這是之前提到的中心主題之一。





## Utilizing Topography to Divide the Venue

Yoyogi National Stadium effectively utilizes the differences in topography to segregate the pathways of three distinct groups. First, there are the general public, coming from JR Harajuku Station, who ascend into the spectator seating area via a gentle slope. Second, athletes and staff enter the sports facilities from the B2 level. Third, officials and VIPs arriving in private vehicles access the B2 level through the entrance driveway from the Shibuya side, followed by an internal route leading to the VIP seating area.

### 利用地形劃分場地

代代木國立競技場巧妙地利用地形的差異將三個不同群體的通道區隔開來。首先，一般大眾從 JR 原宿站進入，通過一條平緩的斜坡升入觀眾席區域。其次，運動員和工作人員從 B2 層進入體育設施。第三，官員和貴賓乘坐私家車從澀谷一側的入口車道進入 B2 層，然後沿內部路線通往貴賓席區域。

### Roof Lighting Atmosphere

Pioneering Large-Span Technology of the Time (Incorporating Japan's First Seismic Dampers, Wind Dampers, Air Conditioning Models)

### 屋頂照明氛圍

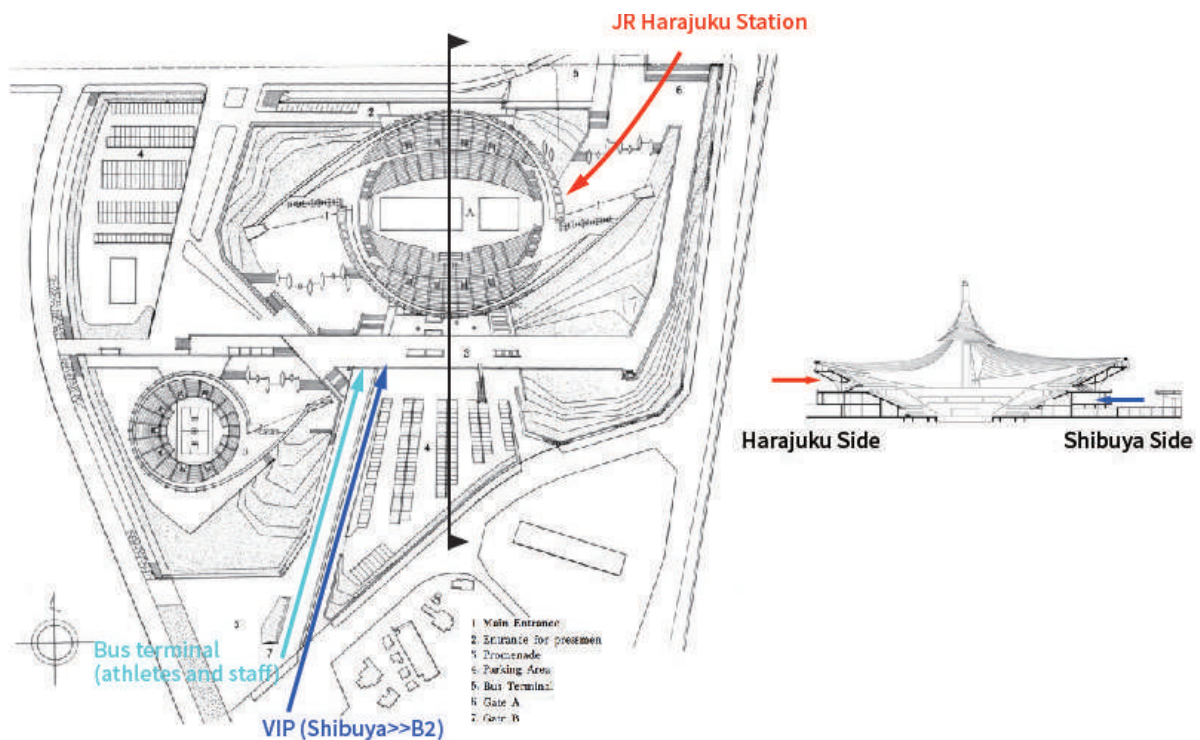
開創當時的大跨度公共建築技術（整合日本首次使用的減震器、風力減震器、空調模型）



Under construction between 1963 and 1964



First Gymnasium 2011



# The feature of the structure

## Post-war large-span structural forms

Post-war large-span structural forms could be divided into three categories: reinforced concrete shells, three-dimensional steel trusses, and suspended roof structures. These structures were generally selected for their required construction time and economic reasons. As span grows larger (area=span), construction costs per square meter become more expensive proportionally. As span grows larger, suspended roof structures become more cost-effective, followed by steel structures, and finally reinforced concrete (including pre-cast concrete) structures. It's the reason why the Yoyogi National Stadium adopted the suspended roof structural form.

## 戰後大跨度曲面建築形式

戰後的大跨度結構形式可以分為三類：鋼筋混凝土殼、三維鋼桁架和懸吊屋頂結構。這些結構通常是根據所需的建造時間和經濟原因而選擇的。隨著跨度變大，每平方米的建造成本將成比例增加。隨著跨度變大，懸吊屋頂結構變得更具成本效益，其次是鋼結構，最後是鋼筋混凝土（包括預製混凝土）結構。這就是為什麼代代木國立競技場採用了懸吊屋頂結構形式的原因。

## The system of structure

The first gymnasium follow 3 subsystem:

1. Hanging roof systems connected to the gymnasium's periphery via main cables.
2. A central structure that includes main cables, main columns, and underground struts, treating the roof load like a suspension bridge.
3. An outer structure that balances the forces from the roof and the grandstand's weight.

In designing the first gymnasium, a conventional suspension system was inadequate. A bespoke semi-rigid system, with curved components, was innovated. Without pre-existing structures, each component required individual calculations. Special joints ("Saturn rings") accommodated 3D variations in cable attachment points. The second gymnasium, smaller (65m diameter), featured a self-supporting roof, eliminating the need for cables. Bending forces on column bases prompted prestressing to prevent cracking.

## 結構系統

第一體育館結構系統採用了三個子系統：

1. 通過主纜索連接到體育館周邊的懸吊屋頂系統。
2. 包括主纜索、主立柱和地下撐桿的中央結構，將屋頂負載視為懸索橋。
3. 外部混凝土結構平衡屋頂和看台重量的力量。

第一體育館屋頂無法僅靠傳統的鋼索懸吊系統支撐，於是提出了「半剛性系統」。由於沒有預先存在的結構系統，每個組件的結構都需要進行單獨的計算，並開發特殊的接頭適應纜索附著點的三維變化。而第二體育館較小（直徑 65 米），取率足夠辦剛性材料字體支撐，無需使用纜索，但柱基需要施予預應力以防止開裂。





# Urban development

## Urban planning - Overview of Post WWII

Post-war Tokyo's development relied on crucial infrastructure like loop roads and land readjustment. In preparation for the 1964 Tokyo Olympics, Washington Heights became a pivotal site, Olympic stadium, and later, Yoyogi Park (becoming an integral part of the urban landscape.. Plans for Yoyogi National Stadium, considering overbridges, were partially implemented, with the Olympic Bridge near Harajuku Station aiding access, contributing to Tokyo's urban development.

### 戰後都市規劃概述

戰後東京的發展依賴於重要的基礎設施，如環狀道路和土地整理。為了迎接 1964 年東京奧運會，華盛頓高地成為一個重要的場地，先是作為運動員村，後來成為代代木公園，成為都市地景重要的一部分。代代木國立競技場的計劃，包括天橋，部分實施，原宿站附近的奧運橋有助於通行，促進了東京的城市發展。

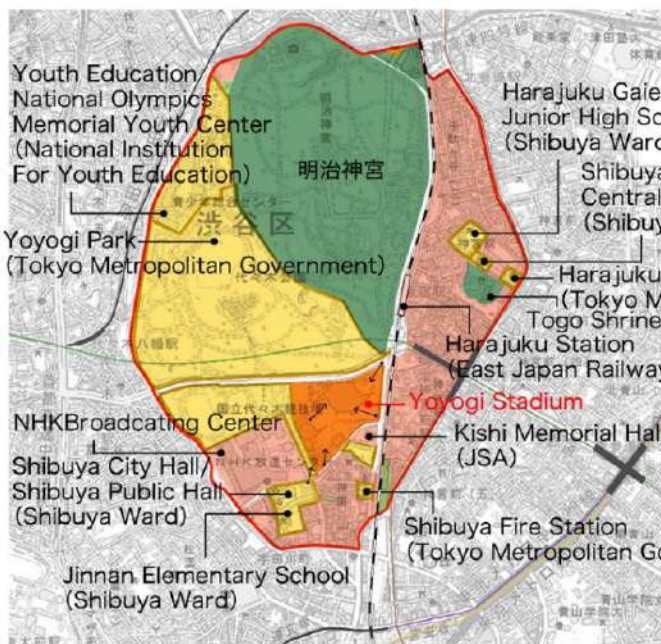
## Urban planning - The city's landscape

The Shibuya-Harajuku area's urban planning importance lies in scenic districts designated under the 1919 City Planning Act, crucial post-WWII for preserving urban beauty. In 1926, the Meiji Jingu area became the first scenic district, extending 18 meters beyond its main approaches to protect the scenery and honor Meiji Jingu, with distinct land use noted in the Yoyogi Military Drill Ground within this district.

### 都市景觀

澀谷原宿地區的城市規劃重要性在於 1919 年城市計劃法下指定的風景區，對於保護城市美景在二戰後變得至關重要。1926 年，明治神宮地區成為第一個風景區，擴展至主要通道之外 18 米，以保護風景並尊重明治神宮，在該區內的代代木軍事演習場中有獨特的土地利用。

Yoyogi Park and Meiji Jingu are categorized as Scenic Districts, with Meiji Jingu holding a higher designation as a Category I Scenic District. Additionally, Meiji Jingu is designated as a special green space conservation area, subject to regulated activities within this specific conservation zone. 代代木公園和明治神宮被劃分為風景區，其中明治神宮更具有一級風景區的高級別。此外明治神宮還被指定為特殊的綠地保育區，在這個特定的保育區內的活動受到規範。



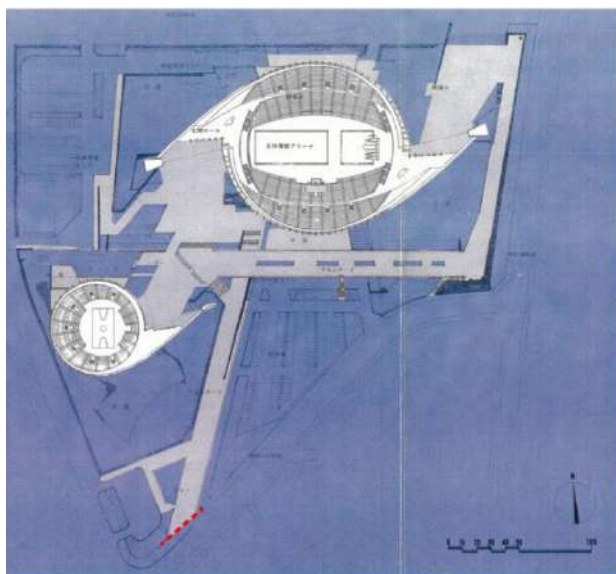
- Public
- Private
- Shrine[religious institution]
- Park
- Site

## Urban planning- The relationship between the site and the city

The spatial structural value of Yoyogi Stadium is rooted in its connection to the city and its role in welcoming a large number of spectators, primarily through Shibuya Gate and Harajuku Gate. The stadium was meticulously designed to create a space where the excitement of the crowd reaches its peak and unites everyone. Plazas, pathways, and promenades contribute to a sense of dynamic interaction between the first and second stadiums while ensuring the smooth flow of people.

External spaces, often considered voids, are an essential component of the overall installation. They contribute to the festive atmosphere within the buildings. Therefore, the preservation of the spatial structure of the site, including the relationship between the buildings and their external spaces, is a critical aspect of its conservation.

In the original 1964 plan, the pavement for Shibuya Gate was intended to commence at the site boundary. However, the existing pavement only covers a portion of this planned area, highlighting the disparity between the initial vision and the current reality.



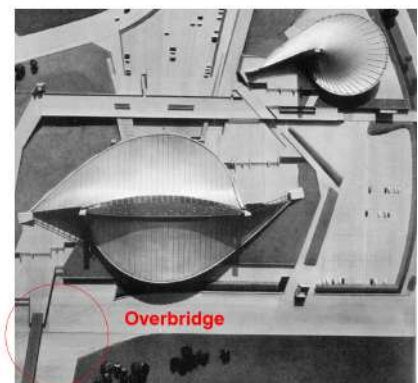
Site plan of Yoyogi Stadium in 1964

## 基地與城市

代代木國立競技場的空間結構價值根植於它與城市的聯繫，以及它在迎接大量觀眾時的角色，主要通過澀谷門和原宿門實現。競技場被精心設計，創造了一個使人群的興奮達到高峰並團結所有人的空間。廣場、通道和長廊有助於實現第一和第二體育館之間的動態互動，同時確保人流的流暢。

外部空間，通常被視為虛空，是整體安裝的重要組成部分。它們有助於建築物內部的節慶氛圍。因此，保護場地的空間結構，包括建築物與其外部空間之間的關係，是其保存的一個關鍵方面。

在最初的 1964 年計劃中，澀谷門的人行道應該從場地邊界開始。然而，現有的人行道僅覆蓋計劃區域的一部分，顯示最初願景和當前現實之間的差異。



Original overbridge plan



Olympic Bridge



Current Yoyogi Stadium



# Managing, Conservation,

## The stakeholders

### - Values for Japanese and urban planning

From a historical perspective, Yoyogi National Stadium (along with the surrounding Yoyogi Park and the reconstructed Meiji Shrine) stands as a symbol of Japan's post-war resurgence. Situated in close proximity to the heart of Tokyo, this location had to contend with the rapidly changing urban environment and the burgeoning population of Japan at the time. Kenzo Tange's innovative ideas propelled Japan's urban planning history and facilitated the fusion of modernism with Japanese tradition. However, development in the city center was inevitable, and large-scale constructions around the vicinity were unavoidable from an urban development perspective. Balancing the cultural significance of this location with its economic development value remains a focal point of CMP.

### 利益相關者 - 日本和城市規劃的價值

從歷史的角度來看，代代木國立競技場、代代木公園和重建的明治神宮是日本戰後復興的象徵。位於東京市中心附近，該地點不得不應對當時急速變化的城市環境和日本不斷增長的人口。丹下健三的創新理念推動了日本的城市規劃歷史，促使了現代主義與日本傳統的融合。然而，在城市中心的發展是不可避免的，從城市發展的角度來看，該地區周邊的大規模建設是不可避免的。在都市計畫中，平衡這一地點的文化重要性與其經濟發展價值仍然是中心問題。

## Management

Year	Management
1964 - 1986	National Stadium as special public corporation
1986 - 2003	National Stadium and School Health Center of Japan
2003 - present	Japan Sport Council

Since 1986, the pressure upon the management body to increase use of the facilities and to adjust the burden borne by beneficiaries and promote management efficiency grew. In response to this, its use expanded to hosting cultural

events, in addition to sporting events. The use and management of the facility has changed in accordance with demand.

年分	管理者
1964 - 1986	國立競技場特殊公法人
1986 - 2003	日本國立競技場和學校健康中心
2003 - 報告書完成	日本體育協會

自 1986 年以來，管理被要求提高設施的使用率，調整受益者的負擔，並促進管理效率增加。為應對這一挑戰，該設施的使用範圍擴大到舉辦文化活動，除了體育賽事之外，該設施的使用和管理已根據需求發生變化。

## Environmental development pressure

### 1. Development Pressure

The Yoyogi National Stadium is situated in a city environment surrounded by various development projects. These developments could have a negative impact on the stadium's landscape and the overall visual appeal of the surrounding area.

### 2. Environmental Pressure

### 3. Visitor Pressure

Since the 1964 Tokyo Olympics, the Yoyogi National Stadium has expanded its functionality and serves as a multi-purpose sports facility. It is also used for music and cultural events. The stadium hosts numerous sports competitions and cultural activities, with a high number of operating days, occupancy rates, and visitors. And 2020 Paralympics will require the addition of some facilities, some potential pressures include: installing universal facilities for people with disabilities, installing temporary structures on open land, and temporary parking facilities within the stadium.

### 4. Others

Being in a bustling commercial area of Tokyo, making it susceptible to potential terrorist attacks and acts of vandalism.

## 環境與都市發展的保存壓力

### 1. 都市發展壓力

代代木國立競技場坐落在都市環境中，周圍有各種大型發展項目。這些發展可能對體育場的景觀和周邊地區的整體視覺吸引力產生負面影響。

### 2. 自然環境壓力

### 3. 訪客壓力

自 1964 年東京奧運以來，代代木國立競技場擴展了其功能，成為一個多用途的體育設施。它還用於音樂和文化活動。該體育場舉辦了眾多的體育比賽和文化活動，營運天數多、佔用率高，吸引了眾多參觀者。而 2020 年的殘奧會將需要增設一些設施，其中一些可能的壓力包括：為殘障人士安裝通用設施，在開放區域安裝臨時結構，以及體育場內的臨時停車設施。

### 4. 其他壓力

作為東京繁華商業區的一部分，其容易受到潛在的恐怖襲擊和破壞行為的影響。

## Maintenance and improvement policies

1. Achieve the goals as defined in Article 3 of the Japan Sports Association Act. (promote the mental and physical well-being of the Japanese people by appropriately and effectively establishing and operating sports facilities)
2. Preserve the original external design (shape) of the Yoyogi National Stadium as it was upon completion.
3. Maintain the large internal space created by the unique column-free structure.
4. Retain the original structural system, including the suspended roof structure.
5. Preserve the original roadways created using the natural topography (michikukan).

## 保存改善方針

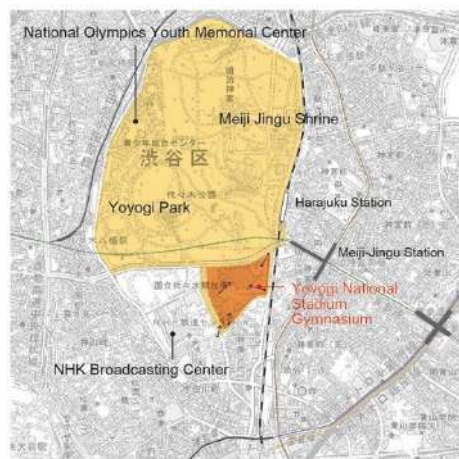
1. 實現《日本體育協會法》第 3 條所定義的目標（通過適當有效地建立和運營體育設施，促進日本人民的身心健康）。
2. 保留代代木國立競技場建成時的原始外部設計。
3. 保持獨特的無柱結構所創造的大內部空間。
4. 保留原始結構系統，包括懸吊屋頂結構。
5. 保留利用自然地形創建的原始道路。

## Buffers

As large-scale developments in Shibuya gradually materialized, three buffer zones were designated based on their impact to protect the commemorative and spiritual significance of Yoyogi Stadium (along with Meiji Shrine). These zones were established to restrict the expansion of large-scale constructions:

## 建設緩衝區

隨著澀谷地區的大規模開發逐漸實現，基於它們對保護代代木國立競技場（以及明治神宮）的紀念和精神重要性的影響，三個緩衝區域被指定，限制大規模建設的擴展。

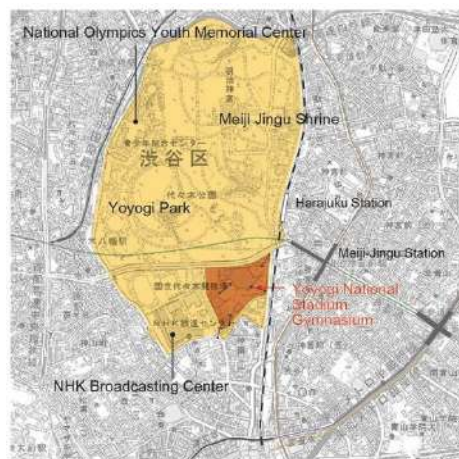


### Zone 1

This buffer zone is organized by large areas (lots) owned by shrines, public, and quasi-public agencies. The areas occupied by private properties are excluded. The designation of this buffer zone is considered the minimum level of landscape control.

### 區域 1

這個緩衝區是由神社、公共機構和準公共機構擁有的大片土地組成，私人財產所佔用的區域被排除在外。這個緩衝區被視為最低限度的景觀控制。

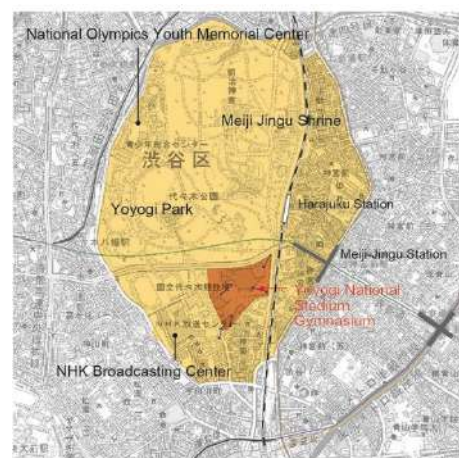


### Zone 2

This buffer zone is based on the existing scenic district. The entire area of Yoyogi Park and Meiji Jingu is included in the zone. The scenic district regulations control activities in this zone. However, the east side of the JR rail tracks and the southern part of the property are inadequately regulated.

### 區域 2

這個緩衝區是基於現有的風景區而設立。代代木公園和明治神宮的整個區域都包含在這個區域內，風景區的法規控制著這個區域的活動。然而 JR 鐵路的東側和南部仍沒受到足夠的監管。



### Zone 3

Considering the entire field of Yoyogi (plateau) as the setting of Yoyogi Stadium, the boundary of the buffer zone should include the entire area. This buffer zone can control the risk of damaging the vistas of the site from both Harajuku Gate and Shibuya Gate.

### 區域 3

考慮到代代木（高地）的整個場地作為代代木國立競技場的設置，緩衝區的邊界應該包括整個區域。這個緩衝區可以控制從原宿門和澀谷門兩個入口周邊建設損害景觀的風險。

