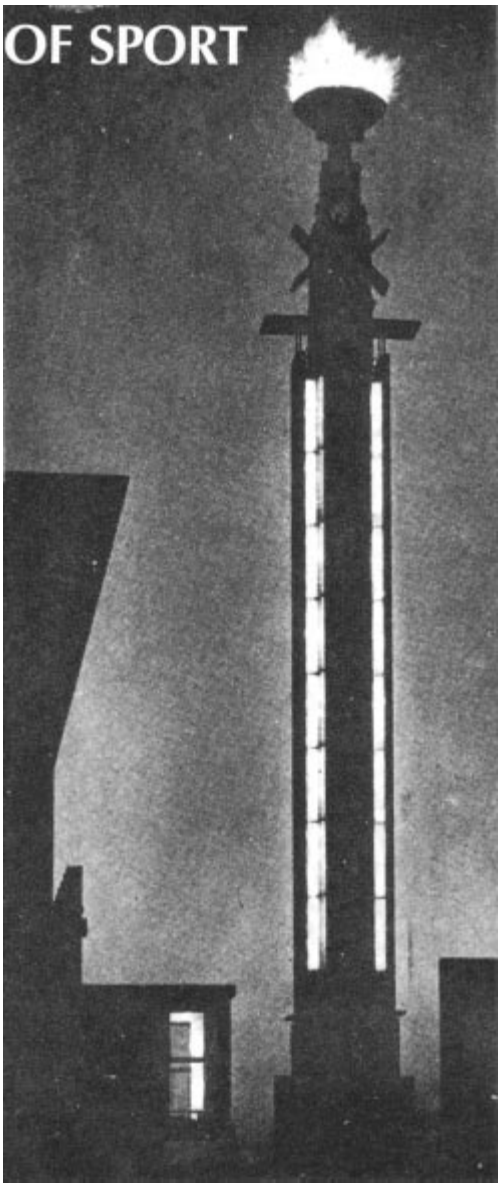
ARCHITECTURE AT THE SERVICE OF SPORT



THE OLYMPIC STADIA FROM 1896 TO 1936

by ***THOMAS SCHMIDT***

The most powerful impetus to the development of modern sports stadiums was provided by the spread of the Olympic concept around the world. The architecture of Olympic structures bears highly characteristic features of the contemporary era. Sociopolitical circumstances and the governmental attitude of the organizing country are clearly reflected in the image presented by the structures. The mutual interactions of politics, sport and architecture express themselves in the outward appearance of the stadiums. The architectural trends of the time have their own vocabulary of form.

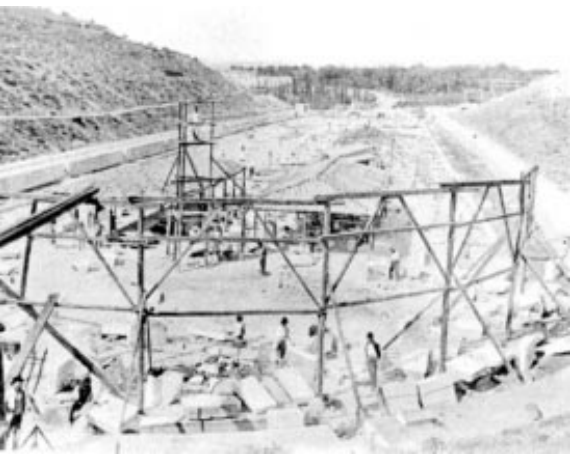
This description is valid for the period up to the Olympic year of 1936 in Berlin, which was followed by the interruption caused by the second World War and the consequent, simultaneous end of a development era of Olympic sports centres. The Olympic Games did not make a new start until 1948 in London. On that occasion, use was made of the existing Empire Stadium of Wembley, dating from 1924. There was no new stylistic contribution for architecture to make.

A period from 1896 to 1936 covers the use of eleven stadiums in the following cities :

Athens	(1896 Olympics)
Paris	(1900 Olympics and 1924)
St. Louis	(1904 Olympics)
London	(1908 Olympics)
Stockholm	(1912 Olympics)
Berlin	(1916 Olympics, not held, 1936 Olympics)
Antwerp	(1920 Olympics)
Amsterdam	(1928 Olympics)
Los Angeles	(1932 Olympics).

The stadiums differ widely in their architectural expression.

In Athens in 1896, the Panathenian Stadium was reconstructed according to archeological criteria, to follow on from Graeco-Roman Antiquity (architect : Ath. G. Metaxas ; see Fig. 1). This Stadium accorded with the then prevailing classical architecture of the City. Excavations had not provided any reference points about the artistic decoration of the ancient stadium with sculpture or about the decorative architecture. The artistic element, the determining one in antiquity, therefore did not enter into the reconstruction, whereas the structural, architectural component of the ancient works was retained.



At the time of 1896 Olympics, the public buildings and even houses of Athens still bore the stamp of a classical style of building. These had been designed mainly by German architects. In the Wars of Liberation from 1821 to 1828, the entire country was devastated. In the reconstruction, foreign architects took as their model the existing monuments from classical Greek and Byzantine art. The younger generation of builders were also brought up in this spirit, so that the architecture of the entire 19th Century and first quarter of the 20th moved almost exclusively in the use of forms of classicism.

The Olympic centres of Paris in 1900 and St. Louis in 1904 were stylistically unimportant. In Paris, in 1900, a club sports' centre of the Racing *Club de France* was used and in St. Louis in 1904, a University sports' centre of Washington University.

The White City Stadium in London (1908 Olympics), with its clean steel-skeleton construction, did not accord with the contemporary architectural concepts of public buildings. Its attributions are those of structural engineering. The bare steel skeleton, based on a module, is the first forerunner of the modern stadium architecture (Architect : unknown ; Fig. 2). His main work had the same goals as modern architecture, the recognition of function and technical construction means.

In Britain, as elsewhere in Europe, public and private buildings until 1914 bore the stamp of tempered historicism and neoclassicism, which did not unite architecture and technical construction. Glass and steel remained restricted in British architecture to exhibition buildings, platform roofs, department stores, industrial structures and office buildings. The modern use of glass and steel dates back to the engineering architecture of the beginning of the 19th Century in England.

In 1851, the gardener Joseph Paxton (1801-1865) designed at Sydenham; near London, an exhibition building in glass and iron (the Crystal Palace). His Crystal Palace was epoch-making and the basis of engineering architecture. In this way a route opened up from engineering, initially a purely structural medium, for a new style of building. Strict suitability for purpose in the use of these new materials and the avoidance of excessive decoration in general encountered resistance at that time among architects. The White City Stadium, however, shows this influence. It was

erected as the first stadium in the world with this modern building material, without historical features in its cladding and without symbolic enhancement of individual parts.

In contrast, in 1912 in Stockholm, an Olympic centre was designed by Torben Grut (1871-I945), which became a creative work of the Swedish national romantic movement, which at that time was at its height (Fig. 3). This movement had its origin in buildings which had been, erected in the 16th Century, during the rule of the Wasa kings. The royal castles of the Wasa period, e.g. Gripsholm, Vadstena and Kalmar, mark the start of the epoch of independent Swedish architecture, which continued to grow under the sons of Gustav I Wasa. Although many foreign architects were called in for the building of the structures, the wishes of the owners resulted in the evolution of a national character. These buildings thus became an expression of Swedish history. Decorations from military expeditions adorn these buildings.

During the reign of Karl XII, the royal castle of Drottingholm was built near Stockholm by the then leading architect of the Scandinavian Baroque, Nicodemus Tessin (1615-1681). This castle combines nordic severity and simplicity with echos from the Roman High Baroque. National characteristics of Swedish architecture receded during the second half of the 19th Century at the time of historicism and the succeeding Art Nouveau.

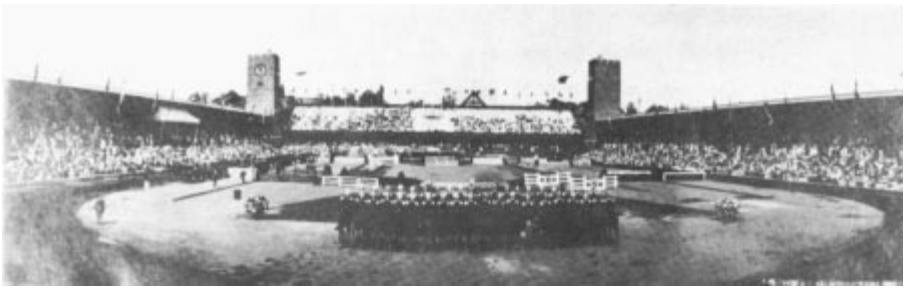
The start of a "Renaissance" in its own tradition first took place at the end of the 19th Century in Denmark. The Danish architect Martin Nyrop (1849-1921) initiated this movement with the building of the City Hall of Copenhagen (commenced in 1893). This period ended thirty years later with the City Hall of Stockholm (1911 to 1923) by Ragnar Östberg (1866-1945). A characteristic of these structures is their simplicity of form. Bare, rustic materials were used, such as granite and brick, which already were found in all Swedish town walls, fortifications and monasteries. In style they recalled various movements in the Swedish and European past.

Another leading architect of this movement was Carl Westmann (1866-1945). He designed the Stockholm Court of Justice building, which shows the influence of Vadstena Castle from the Wasa period. Like Östberg's works, this is distinguished by simplicity, an economic grouping of spaces, rustic facades in hand painted brick and closed wall surfaces.

The same architectural feeling was expressed in 1912 by the Olympic Stadium of Torben Grut. The form of this structure is simple. The external facade is characterized by bare materials such as granite and brick. The load-bearing structure is of reinforced concrete. The architecture represents a union of reinforced concrete with brick construction reminiscent of the middle ages, as found in mediaeval Swedish town walls, fortifications, monasteries and churches.

This style was superseded in the Twenties by purified forms of a neoclassical movement. Swedish classicism exhibits here a departure from the simpler and more native materials, such as were common in older buildings. Gunnar E. Asplund (1885-1940) was initially one of the most important Swedish architects of the reformed neoclassicism. One of his main works in this style is the City Library of Stockholm (1920 to 1928).

A special influence on the development of sports' centre architecture in Germany was exerted by the architectural administrator Hon. Dr.-Ing. Otto March (1845-1913), who led grandstand architecture out of the otherwise random character of the earlier functional and utilitarian structures. He erected the first German stadium,



intended initially for the 1916 Berlin Olympics (Fig. 4). A notable feature here is the interaction of building and landscape on a Grecian model. Stylistically, this stadium showed a re-adoption of classical elements. The stadium became a prototype of many German and European centres.

Although the Olympic Games of 1916 were not held in the German stadium on account of the 1st World War, the stadium is never ignored in a consideration of Olympic sports' centres. In particular, integration into the immediate landscape is emphasized; here, the architectural principle of ancient Greek stadiums served as a model for March.

This planning viewpoint in the case of Otto March can be regarded as unique in the modern history of stadiums, because, due to the large dimensions of our present-day stadiums, it is possible in only a few cases deliberately to follow this ancient Greek architectural principle. The elongated, compound-curve form of the German stadium nevertheless resembled the formal character of an ancient Roman circus.

A further essential element in the conception of the German stadium was that embodied for the first time in Stockholm, namely the connection with pictorial art. Themes were taken from mythology. The objective pursued was to illustrate an association between physical training and moral values (Fig. 5).

At the time of the construction of the German stadium (1913), architecture in Germany exhibited a trend which was leading to a kind of neoclassicism. In the first decade of the 20th Century, in the struggle to find a new architectural style to overcome historicism and eclecticism, there developed Art Nouveau (1890 to 1910) and neoclassicism (from 1900 onwards). The latter gradually displaced the Wilhelminian style, a nationally promoted official style' (neo-renaissance, from 1885 neo-baroque), during the reigns of the German Emperors : Wilhelm I, Friedrich Wilhelm III and Wilhelm II (1871 to 1918).

The Beerschot Athletic Stadium in Antwerp, built by Somers and Montigney in 1914 and modernized in 1919, is unimportant in regard to the history of style. It consists of a combination of architecture, engineering and timber construction (Fig. 6). The longitudinal grandstands are emphasized by clear, rectangular structural forms with saddle roofs, without any historical disguise. Elevations display exposed steel columns to grandstand roofs and the veranda of a cafe, their tops having a simple Art Nouveau form. By the choice of different constructional materials, such as wood and steel, a mixed construction is obtained for the grandstands, with no Art Nouveau influences visible in the timber construction. The two sports pavilions erected temporarily in 1919 were, in contrast, built in a neo-baroque style, by

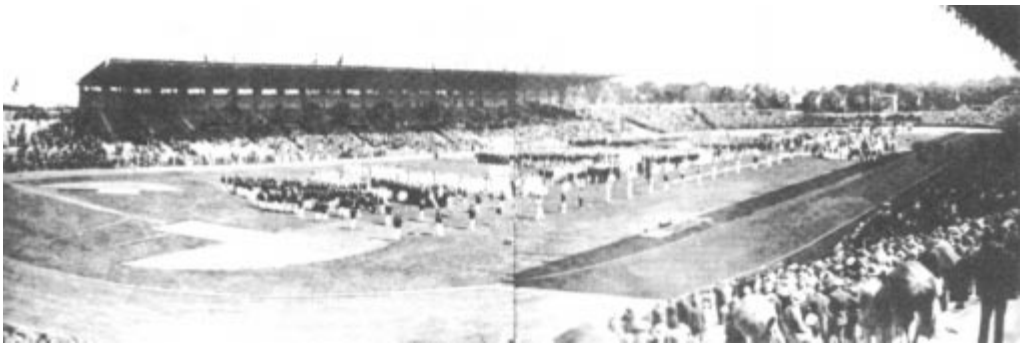
which the architects continued the tradition of the architectural style common at the turn of the Century.

Mention must be made of the Olympic stadium of L. Faure-Dujarric (1877 to 1943), erected for the 1924 Olympics in the style of the new functionalism. This represents a synthesis of constructivism, international style and functionalism. The load-bearing structure of the longitudinal stands is covered by a simple, rectangular, rendered masonry wall without any ornamentation. High symmetrically arranged window assemblies and doors, terminating at the top in Romanesque style, characterize a neoclassical composition; they are interrupted by smaller, symmetrically and horizontally arranged windows (Fig. 7). The horizontal component, merely indicated here, is more pronounced in the international style commencing in 1925. The curved stands, in contrast, must be attributed to constructivism. The constructive element is visible here and itself acts as an ornament (Fig. 8).

Until the end of the second World War, constructivist stadiums are still merely designs or represent an exception. The early ventures in the objectification of grandstand structures include Perret's conceptional drawings : The supporting structures are completely visible and the material used — concrete and steel girders — is left with an industrial standard of finish.

In the middle of the 19th Century, iron construction was developing in France. France is also the home of reinforced concrete. Lambot and Coignet (1814 to 1888) were forerunners of Monier (1823 to 1906) , who obtained in 1867 his patent for a structure in iron and steel. In spite of these advances in construction, architecture at the start of the 20th Century is still stamped with the classical tradition of the *Ecole des Beaux Arts,* the basis of which was the ancient arrangement of columns.

The number of architects who afterwards attempted to create a new architectural style from steel and concrete in France was relatively small. Tony Garnier (1825 to 1898), Auguste Perret (1874 to 1954), Le Corbusier (1887 to 1965), Robert Mallet-Stevens (born 1886), Henry Sauvage (1873 to 1932), André Lurcat (1894 to 1970) are the main ones to be mentioned. Fauré-Dujarric also belonged to this movement. This is all the more remarkable in that Dujarric was a pupil of the conservatively oriented *Ecole des Beaux Arts* and one of the last prize winners of the *Grand prix de Rome* (1877). As he took on prac-



tical work, he turned towards modern architecture. His ground plans are developed from functional aspects. The facades are uniform, the constructional elements were frequently visibly employed as "ornaments". The roofs are flat, usually in a staggered arrangement. The historicising motifs, still common at that time, are lacking in the facades of his buildings.

The Olympic stadium of Jan Wils (1891 to 1972) in Amsterdam for the 1928 Olympics is distinguished by a contrast between the internal and external faces. The matter-of-fact utilitarian structure, consisting of a reinforced concrete skeleton, unfortunately comes into evidence only on the inside (Fig. 9). This construction is unfortunately covered externally by a closed brick facade, which goes back to the architectural style of the American architect Wright. An international committee of architects, which was close to the Olympic Committee, favoured glass walls as facades to enable the construction to be left visible, but had no success with its proposal. The facade therefore does not constitute an innovation, exhibiting in its style the features of earlier buildings.

The overhanging roofs, the horizontal reinforced concrete frames, the vertical "lines" at the entrances (cf. Dausinstitut Gaillard-Jorissen, the Hague, 1921) the basins for flowers and plants, could already be found in earlier buildings. The stadium in Amsterdam therefore offers little further development. It does, however, express the principles of a modern architecture.

T.S.

(to be continued)