

Centennial Hall in Wrocław (Poland)

No 1165

1. BASIC DATA

<i>State Party:</i>	Republic of Poland
<i>Name of property:</i>	Centennial Hall in Wrocław Poland
<i>Location:</i>	City of Wrocław, Historic region Silesia, Voivodship of Lower Silesia
<i>Date received by the World Heritage Centre:</i>	31 January 2003
<i>Included in the Tentative List:</i>	28 March 2000
<i>International Assistance from the World Heritage Fund for preparing the nomination:</i>	No
<i>Category of property:</i>	

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *monument*.

Brief description:

The Centennial Hall in Wrocław, Poland, was built in 1912-13 as part of the construction of new Exhibition Grounds. It is a pioneering example of the early modern architecture and engineering. It was a daring undertaking, the largest dome structure in reinforced concrete (65m diameter) built to date, using the most advanced technology of its time.

2. ACTIONS

Background: This is new nomination.

Date of the Technical Evaluation Mission: 18-21 September 2005

Dates of request for additional information and of receipt from State Party: ICOMOS has sent a letter of request for additional information 28 September 2005. The State Party has submitted the requested information on 6 December 2005.

Consultations: ICOMOS has consulted its International Scientific Committee on 20th Century Heritage.

Literature: The significance of the property in structural and architectural evolution is analysed in numerous publications, such as those one.g. the history of 20th century architecture and design by R. Banham, K. Frampton, H.- R. Hitchcock, J. Joedicke, U. Kultermann, V. Lampugnani, and B. Zevi, N. Pevsner, as well as Sir Banister Fletcher. The work of M. Berg is illustrated in the publication accompanying a 2005 exhibition in Wrocław: J. Ilkosz, *Hala Stulecia ...* (Wrocław, 2005); English edition forthcoming. The work of H. Poelzig is described in: J. Ilkosz & B. Störckuhl, eds., *Hans Poelzig in Breslau, Architektur und Kunst 1900-1916*, (Delmenhorst 2000).

Date of ICOMOS approval of this report: 15 January 2006

3. THE PROPERTY

Description

The Centennial Hall (in German: *Jahrhunderthalle*, in Polish: *Hala Ludowa*) was erected in 1911-1913 by Max Berg, at the time municipal architect in Breslau (today's Wrocław). The Dresden company Dyckerhoff & Widmann, under engineer Willy Gehler (1876-1953), was contracted to erect the dome.

The Centennial Hall is a centrally-planned building situated in the middle of the Exhibition Grounds in the north-eastern part of Wrocław, adjacent to Szczytnicki Park. It stands at the crossing of the principal axes of the main Exhibition Grounds, which are part of the core zone.

The structure of the Centennial Hall is entirely in reinforced concrete. The overall plan of the building is laid out on a symmetrical quatrefoil form with a vast circular central space of 65m diameter and 42m high. The four principal entrances in the main axes lead into a spacious ambulatory, which surrounds the central hall and provides access to the upper levels.

The principal bearing structure of the central hall is a huge reinforced concrete truss ring founded on four main pillars. This is a sort of drum perforated by four semi-circular arches that open into large apses with audience seats. The hall can have seats for some 6,000 persons. Originally, one of the apses had a large organ - now lost. The concrete ribs of the central dome rise starting from the drum, supporting a series of concentric glazed rings. The dome is topped with a lantern in the form of a small dome in steel and glass. The four arches supporting the drum correspond to the corners of two overlapping, mutually offset rectangles circumscribed about the quatrefoil's inner circle. The total dimension of the domed interior is 95 m. Each arcade is enclosed by six ribs acting as relieving arches. The reinforced concrete structure has two self-supporting complementary structural systems: the 19 m high cylindrical base, consisting of four massive arches (span 41 m, height 16.7 m), opening into the apses, topped by a massive ring, and the 23 m high ribbed dome on its drum.

The structure of the dome is exposed, and opens into the interior. The dome is covered with a stepped roof, and the lantern is topped with a domed concrete roof covered with tar-board. The other roofs are flat and built in concrete. The windows are made of exotic hardwood. In order to improve the acoustics, the stepped walls are covered with an insulating layer of concrete mixed with wood or cork. Horizontally, the structure has been divided into two parts: the sprawling bottom section (with the dome's base and ambulatory) and the stepped upper section. The horizontal emphasis is reiterated by the projecting cornices above each of the nine tiers of windows of gradually decreasing height, the element additionally emphasising the dynamic aspect of the massive structure. The elevations have no decoration or ornament, but the exposed concrete texture is marked with the imprints of the wooden formwork.

On the west side of the Centennial Hall is a monumental square modelled like an ancient forum. On its north side is the Four-Dome Pavilion designed by architect Hans Poelzig in 1912 to house an historical exhibition. In the northern section of the Exhibition Grounds, Poelzig designed a concrete pergola surrounding an artificial pond. It is separated from the Centennial Hall by a building

housing a restaurant with an open terrace. Adjacent to the entrance is the office building of the company administrating the Exhibition Grounds (Breslauer Messe A.G.), built in 1937 to the design by Richard Konwiarz. The *propylon*, a monumental gateway leading to the 'forum', is in the form of a colonnade with reinforced concrete columns, designed by Max Berg in 1924, the roof of which was destroyed in World War II. A steel spire was mounted in the middle of the 'forum' in 1948.

History

The history of the city of Wrocław is coloured by many influences and rulers, also reflected in the varying forms of the name of this 'Island City': Wrotizla, Vretslav, Presslaw, Bresslau, Breslau, Wrocław. As the capital of an important province and one of the principal cities in the German Empire, Wrocław (then Breslau) developed rapidly in the late 19th century. Taking into consideration the city's historically strategic location and its role as an important multicultural communication centre, it was considered to require a permanent structures to house exhibitions such as those in Frankfurt am Main, Berlin, Leipzig or Dresden. An opportunity for building the new Exhibition Grounds was the commemoration of the 100th anniversary of the address to the German Nation presented by King Frederick William III, in 1813. The decision was taken by the City Council in 1910. The location was decided as part of the suburban complex (150 ha), consisting of the mid-19th century Park Szczytnicki, designed by distinguished garden designers, and the Municipal Zoological Garden of 1864-1865. This area was a favourite retreat for visitors, and a tram line had been built to connect it to the city in late 19th century.

In 1909, architect Max Berg (1870-1947), who had studied in Munich and worked in Frankfurt am Main, was appointed municipal architect. In the following year, he started preparing a design for a multipurpose exhibition hall, presenting the project in early 1911 as a part of a plan for city improvement. On 28 June, 1911, the City Council approved Berg's design and gave its consent to the construction of the Exhibition Grounds and the Centennial Hall.

At the same time, an architectural competition was announced for the design of the Exhibition Grounds. The task of developing the overall layout was entrusted to Hans Poelzig (1869-1936), the Principal of the State Academy of Fine and Decorative Arts in the city. The final project was developed by him in collaboration with Berg. The focal point was the Centennial Hall, and the overall layout of the grounds was based on two principal axes, instead of one as had been proposed by many other competitors. In 1912, the City Council approved the plans for the second exhibition building, the Four-Dome Pavilion designed by Hans Poelzig, to house a historical exhibition on the Napoleonic Wars. To this were added the administrative building and a restaurant, these structures formed a forum-like square, with the main gate located on the west side, and a view to the north over an artificial pond surrounded by a monumental pergola, designed by Poelzig.

The work site was opened in 1911, and the construction of the monumental arches started in April 1912. The technology was avant-garde. Specially designed electric

compressors were used to pre-stress the concrete. The stability was verified by Professor Heinrich Müller of Berlin. Building materials were selected with great care. Special cement, supplied by the Silesia Cement Plant in Opole and tested in Groß Lichterfelde, Berlin, was used for the concrete. High-grade rolled steel was employed for reinforcement rods instead of the standard structural steel. In the sections exposed to higher stress, an aggregate made of the highest quality granite was used. The municipal authority examined the hardening of concrete during month-long tests. The required strength was 6 times greater than estimated. A hardwood model of the apse was built in scale 1:25 and tested under a load of 6000 kg. Only qualified and experienced workers were employed.

The Centennial Exhibition opened in May 1913, attended by Crown Prince Wilhelm. Over 100 000 people visited the Exhibition. After it closed, the temporary pavilions were dismantled, but the Centennial Hall continued to serve as an assembly place and Poelzig's Four-Dome Pavilion as an exhibition hall. After World War I, the Exhibition Grounds were managed by a joint stock company. National and international industrial fairs were organised, as well as art exhibitions, concerts and theatrical productions. In 1924-1925 the Exhibition Grounds were expanded, and a large exhibition pavilion, *Messehalle*, and a monumental colonnaded entrance were built to Berg's design, but destroyed during World War II. In 1929, a "Living and Work-space" exhibition (WUWA) was organised in Breslau by the German Werkbund, an important manifesto of new architecture, innovative technologies and services.

The Exhibition Grounds survived World War II relatively intact. In 1948 the Exhibition of the Reclaimed Territories (returned to Poland) was staged here, commemorated by the steel Spire ("*Iglica*"), designed by Professor Stanisław Hempel, erected on the square in front of the Centennial Hall. In August 1948, the World Congress of Intellectuals in the Defence of Peace was staged at the Centennial Hall, attended by Pablo Picasso. In 1995-1997 the interior of the Centennial Hall was renovated.

Protection and Management

Legal provision:

At the time of the nomination, the Centennial Hall was the property of the State, and managed by a limited liability commercial company. The ownership has since been transferred to the Municipality in late 2005.

The Centennial Hall and the Exhibition Grounds are under legal protection, listed in the register of historical monuments (No. 198, by the decision of 24.04.1962 and 343/Wm,15.04.1977).

Management structure:

The management and maintenance of the Centennial Hall is the responsibility of the *Wrocławskie Przedsiębiorstwo Hala Ludowa sp. z o.o.* The management of the Centennial Board is supervised by the Municipal and Provincial Conservator of Historical Monuments.

The regional master plan for the Province of Lower Silesia from 2002 lists the Centennial Hall as a monument of unique value. The master plan of this part of Wrocław was

enacted in the bill of the City Council on 16 March 1990. It places the Centennial Hall and Exhibition Grounds in “Zone A” (strict conservation protection), together with Szczytnicki Park and the Zoological Garden, and defines the buffer zone. In 2002, the decision was also taken to prepare a detailed study and local spatial development plan for the conservation and management of the site.

Resources:

The owner finances maintenance and necessary repairs in accordance with a partnership contract.

Justification of the Outstanding Universal Value by the State Party (summary)

Criterion i: The Centennial Hall in Wrocław, built by Max Berg in 1910-1912, is a masterpiece of human creative genius. ... It was the first monumental building to take into account aesthetic possibilities of cast arcuated concrete. With its diameter of 65 m, the dome of the Centennial Hall was at the time the largest ever built, superseding the domes of the Hagia Sophia and the Pantheon. The dome’s enormous span presented a major structural challenge solved by applying pioneering structural solutions which produced the work of great architectural beauty. ... The Centennial Hall in Wrocław became a departure point for modern monumental structures of the 20th century. ...

Criterion ii: Max Berg’s Centennial Hall in Wrocław is an example of innovative architectural and structural solutions. The first to take into account and explore the possibilities of a new material (*ferroconcrete*) and use it to create a monumental public building with new functions, it must be considered one of the most important architectural works of the 20th century. Until it was erected, the largest dome ever built was that of the Pantheon in Rome. The dome of the Centennial Hall had the diameter two times bigger: the stunning achievement made possible by the new material (*ferroconcrete*), Berg’s innovative approach to design and his innovative structural solutions. ...

Criterion iv: The Centennial Hall in Wrocław is a pioneering work, integrating dynamic and harmonious architecture with social function. Max Berg referred to tradition searching for order and harmony that would define a new approach to architecture focused on simplicity of form and truth of the material. His rational interpretation of techniques as the source of style anticipated the avant-garde ideas. Berg emphasised the functional aspect informing the structural solutions. The building was to perform a double function of an exhibition space and an assembly place. Berg envisioned the entire structure cast in reinforced concrete, with glazed walls. This reflected his approach to the design process, taking the interior space as the departure point and resulting in the ‘de-materialisation’ of the walls. The expression of the interior relied on its exposed reinforced concrete structure appearing “just as it left its mould”, deprived of any superfluous ornament. The Centennial Hall in Wrocław is one of the first examples of 20th century modernist architecture. It reflects the avant-garde ideas and concerns of the pioneers of modern design. Its modernity is expressed in novel structural solutions and the innovative approach to the design process. The Centennial Hall in Wrocław is an outstanding example of building designated

for large assemblies, the first testimony in the world to the emergence of architecture addressed to modern, democratic society.

4. EVALUATION

Conservation

Conservation history:

The Centennial Hall survived intact the World War bombardment in 1945, while the exhibition grounds suffered from the loss of some other buildings designed by Max Berg. The hall and the exhibition grounds have continued to be utilised until the present. In 1997, a part of the exhibition grounds was flooded, but the Hall was not affected. From the mid 1990s, the Hall has been subject to maintenance and repair works that still continue. These works have included the repair of roof coverings, the replacement of seats in the audience hall, the repainting of the foyer, the updating of the wirings and other technical facilities.

State of conservation:

The current state of conservation of the Centennial Hall is good. The roofs and fittings are in good state. The concrete structures are in good condition.

The exhibition grounds have been repaired after the 1997 flood and are now in good condition.

Protection and Management:

The buildings of the Exhibition grounds are under a mixed ownership. The domed building designed by H. Poelzig remains in state ownership, while the Centennial Hall and the exhibition grounds are owned by the City of Wrocław. There is a property management plan, which is adequate for the property, and is being implemented by the responsible administration. It obviously needs to be complemented with action plans on a yearly basis subject to the emerging needs regarding the use of the property regards especially the possible design of new services and facilities on the grounds.

Originally, the State Party proposed to limit the core zone to the sole building of Centennial Hall. The Exhibition grounds were defined as a buffer zone. As a result of the ICOMOS field mission, it was decided to change this, and to enclose the Exhibition grounds within the core zone together with the Centennial Hall, considering that this ensemble has a clear unity of design, and was planned as one whole. The buffer zone has been extended to cover a much broader area, including the zoological garden, part of the park, as well as the nearby small housing areas, which are all legally protected. The nominated area and its buffer zone are situated in a park with some small housing, and the whole area is under strict planning control, which is considered adequate.

Risk analysis:

The main risk in the area of the exhibition grounds is the flooding of the Oder River. Major floods have occurred at certain intervals over the centuries, the latest being in 1997.

Currently the exhibition grounds and the Centennial Hall lack various facilities such as storage for equipment, social

services, restaurants, and parking areas. It is planned to satisfy these needs using the sites of the buildings destroyed in the Second World War. This is considered appropriate, but attention is drawn to the need to fully respect the quality of the historic context.

Authenticity and integrity

Authenticity:

The Centennial Hall has well retained its structural and architectural integrity and historical authenticity. Some minor changes or repairs have been carried out, including lowering of the central floor area by about one meter to facilitate performances. Originally in the Hall there was a large organ and a special balcony for the king, which were removed after the exhibition. The fittings, i.e. the wooden window frames and most doors are also original, which have been subject to maintenance and repainting in 2005 from the first construction

Integrity:

The Exhibition Grounds have retained the main features along the two principal axes. In addition to the Centennial Hall, several buildings remain from the pre-war construction, including the four-dome structure by Hans Poelzig. Some structures have been lost, such as the original entrance gate, the roof of the entrance hall and the restaurant building. The tall and slender pillars of the entrance gate have been preserved. During the Centennial Exhibition, the zoological garden was integrated with the exhibition grounds by two footbridges across the street, designed by Poelzig. One of the original bridges still exists, and a second bridge has been added recently. As a whole, the Exhibition grounds and the Centennial Hall have retained their structural and visual integrity. Also the use of the grounds is compatible with the originally intended functions.

Comparative evaluation

The construction of the Centennial Hall (*Jahrhunderthalle*) in Wroclaw is the result of various developments, including the worldwide trend to build international exhibition grounds and, more specifically, the development of new concepts and technologies in architecture and engineering. Following the theme of exhibitions, the property can be compared to the Royal Exhibition Building and surrounding Carlton Gardens, designed by Joseph Reed for the great international exhibitions of 1880 and 1888 in Melbourne, inscribed on the World Heritage List in 2004. As its name already indicates, the 19th century building is, however, completely different. The Wroclaw Centennial Hall was also built to commemorate the 100th anniversary of victory over Napoleon in the Liberation Wars of 1813-15. In its daring design, the Centennial Hall can be compared with the Tour Eiffel in Paris, built in 1889 to commemorate the French Revolution, equally daring in its engineering design.

The use of reinforced concrete developed in the second half of the 19th century, especially in France, e.g. François Hennebique (1842-1921), Anatole de Baudot (1834-1915) and Auguste Perret (1874-1954). Max Berg (1870-1947) and Hans Poelzig (1869-1936) were pioneers in the early

phase of the development of modern architecture and contemporary with or slightly older than other German masters, including Peter Behrens (1868-1940), Walter Gropius (1883-1969), Max Taut (1884-1967), Mies van der Rohe (1886-1969), and Erich Mendelsohn (1887-1953), who all contributed to the development or reinforced concrete skeleton structures. In this development, Max Berg's Centennial Hall is an avant-garde structure which opens new grounds in the use of the materials and in spatial conceptions. It is the largest dome structure in reinforced concrete built before the First World War. It used the latest technology and the most advanced testing of the materials.

While displaying regard of major architectural creations in the past, such as the Pantheon, Hagia Sophia, or S. Lorenzo in Milan, as well as reflecting the latest developments in modern architecture, the Centennial Hall anticipates the large reinforced concrete structures in later 20th century, e.g. by Pier Luigi Nervi in Italy and others around the world.

Outstanding universal value

General statement:

The Centennial Hall (*Jahrhunderthalle*) of Wroclaw is distinguished as an outstanding example of early modern architecture and in its innovative use of reinforced concrete structures in the construction of a large hall. It was the largest dome in reinforced concrete built until its time, a modern interpretation of the amphitheatre. It was significant in creating a new technological solution of great aesthetic value, which became a major reference in the further evolution of such technology in the design of public spaces.

While having traces of historic evolution in its architectural forms, it was a pioneering work integrating a dynamic architectural solution to respond to emerging social needs that ranged from an auditorium for conferences, theatre and opera functions as well as being an exhibition space. The architecture of the Centennial Hall is considered of outstanding universal value from the point of view of art and science as well as presenting a significant watershed in the history of modern architecture.

The principal focus of the nomination is the Centennial Hall. However, this project was well integrated with the design of the exhibition grounds and the different components therein, which cannot be separated from the overall layout of the site.

Evaluation of criteria:

The property has been proposed by the State Party on the basis of criteria i, ii and iv:

Criterion i: The Centennial Hall of Wroclaw is a creative and innovative example in the development of construction technology in large reinforced concrete structures. The Centennial Hall occupies a key position in the evolution of methods of reinforcement in architecture, and one of the climax points in the history of the use of metal in structural consolidation. ICOMOS considers that the property meets this criterion.

Criterion ii: The Centennial Hall is a pioneering work of modern engineering and architecture, which exhibits an

important interchange of influences in the early 20th century, becoming a key reference in the later development of reinforced concrete structures. The combination of three building materials – *concrete, metal and glass*, which were used by Berg as structural elements of the Centennial Hall, to a great extent determined key positions of a new architectural vision in Germany. Breslau was one of the leading centres of Modern Movement in Europe as was shown by the works of Mendelsohn, Poelzig, Scharoun, and the influence of the Centennial Hall on the theories of Bruno Taut, R. Steiner, the German Expressionism, as well as on Werkbund and Bauhaus, which in turn inspired new architectural movement internationally. ICOMOS considers that the property meets this criterion.

Criterion iv: As part of the exhibition grounds of Wroclaw, the Centennial Hall is an outstanding example of modern recreational architecture that served a variety of purposes, ranging from conferences and exhibitions to concerts, theatre and opera. ICOMOS considers that the property meets this criterion.

5. RECOMMENDATIONS

Recommendations

While recognizing the efforts already made for the conservation and management of the Centennial Hall, it is recommended that due care be continued in this regard, and particular attention be given to the planning and design of any new structures to house the services and facilities in the Exhibition Grounds, respecting the values of the existing historic context.

It is further recommended that the name: “Centennial Hall in Wroclaw Poland” be changed to: “Centennial Hall in Wroclaw”.

Recommendation with respect to inscription

ICOMOS recommends that Centennial Hall in Wroclaw, Poland, be inscribed on the World Heritage List on the basis of *criteria i, ii and iv*:

Criterion i: The Centennial Hall of Wroclaw is a creative and innovative example in the development of construction technology in large reinforced concrete structures. The Centennial Hall occupies a key position in the evolution of methods of reinforcement in architecture, and one of the climax points in the history of the use of metal in structural consolidation

Criterion ii: The Centennial Hall is a pioneering work of modern engineering and architecture, which exhibits an important interchange of influences in the early 20th century, becoming a key reference in the later development of reinforced concrete structures.

Criterion iv: As part of the exhibition grounds of Wroclaw, the Centennial Hall is an outstanding example of modern recreational architecture that served a variety of purposes, ranging from conferences and exhibitions to concerts, theatre and opera.

ICOMOS also Recommends that the name of the nominated property be changed to: “Centennial Hall in Wroclaw”.

ICOMOS, April 2006



Map showing the revised boundaries of the nominated property



Main Entrance



Interior