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# **Minimum Documentation Fiche 2003**

International working party for

#### documentation and conservation

of buildings, sites and neighbourhoods of the **modern movement** 

composed by national/regional working party of:

Germany

0.1 Picture of building/site



depicted item: Hutten-, Ecke Berlichingenstr.

source: Platz, Gustav Adolf: Die Baukunst der neuesten Zeit, Berlin 1927, p.262

date: ca. 1910

		db code
1.	Identity of building/group of buildings/urban scheme/landscape/garden	
1.1	current name of building: AEG – Turbinenhalle (AEG – Turbine Hall)	3
1.2	variant or former name: AEG-Turbinenfabrik	4
1.3	number & name of street: Huttenstraße 12-16	5
1.4	Town: Berlin	6
1.5	Province/state: Berlin	7
1.6	zip code: D-10553	8
1.7	Country: Germany	9
1.8	national grid reference:	10
1.9	classification/typology: IND (Assembly Hangar)	11
1.10	protection status & date: Since 1959 the Turbine hall (1908/1909) together with further facilities of the AEG located at Huttenstrasse / Berlichingenstrasse is registered as an architectural monument. Today the whole facility is recorded on the Berlin list of monuments. A extension to the turbine hall built in 1939 is also part of the monument.	12

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#### 2 History of building

2.1	original brief/purpose:
	Industrial hall for the fabrication of turbines

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2.2 dates: commission/completion: Design: 1908, Construction: 1909

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The power company AEG was founded in 1883. Its headquarters were located at the Brunnenstrasse in the Berlin city district Wedding. The economic expansion of the company soon made the establishment of new locations necessary. In 1904 the AEG took over the premises of the Union-Elektrizitätsgesellschaft (Union Power Company ) at the Huttenstrasse in the city district Moabit for the fabrication of turbines.

After the acquisition this branch location was quickly developed. In 1908 Peter Behrens was given the commission to build a new factory hall. The hall was finished and was put into operation as early as 1909. Behrens, who belongs to the most important pionees of industrial architecture and industrial design, had been working as an artistic advisor for the AEG since 1907. The AEG was hoping to strengthen the company on the world market by having formally well developed products. Until his resignation from the AEG in 1914 Behrens, who had given many AEG products a modern design, was given plenty of rope by the management when working on new buildings, including the turbine hall.

2.3 Architectural and other designers:

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Peter Behrens (1868-1940) worked on the design together with Karl Bernhard. Bernhard, a structural engineer and specialist for steel structures, was responsible for the construction of the building.

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2.4 others associated with building

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significant alterations with dates: In 1939-40 the hall was extended by about 85m following a design by the architects Jacob Schallenberger and P. Schmidt. The extension continues the dimensions of the original building in a more simple way without, however, reaching Behrens' design qualities of the turbine hall.

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2.6 current use:

2.5

The Siemens company uses the turbine hall to this day to fabricate large turbines. The assembly hangar by Peter Behrens can therefore look at 100 years of continuous use.

2.7 current condition:

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The turbine hall has survived the war unscathed. The original substance remained mostly intact due to the continous use as a production hall for large turbines which even after the war required no major changes or adaptions.

### 3 Description

3.1 general description

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The Moabit turbine factory consists of the turbine hall, for the assembly of turbines and a lower, two-storey side wing with basement (for supplying work). This side wing with a width of 14m is attached to the western side of the hall and is completely subordinate in its architectural appearance to the monumentality of the hall. The hall is 123m long and 25m wide as well as high. The outer appearance of the building is very much sculptural and monumental. The side is

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dominated by the visible construction and the tapering steel supports with whole wall profiles (resting on prominent joints on top of a concrete base). The steel supports are positioned in front of completely glazed window panels which are tilted to the inside. A large window front is positioned on the pediment between the horizontally divided corner pylons with round edges (nonbearing concrete casings). The pediment shows a subdivided and tympanum-like field with the company logo AEG and the lettering "Turbinenfabrik" which follows the turtle-like shaped roof. The hall itself is a space without supports and partitions lit from three sides and with a gallery along the western side.

#### 3.2 Construction

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The construction of the main hall consists of steel binders (tied pin-joint-arch) with a dimension between axes of 9.20m which are built as whole wall profiles on the street side. On the court side the construction is resting on the side hall. The roof construction is made of steel lattice framework consisting of trusses which are bent several times (pin-joints) with ties. Only this construction allows the generous lighting of the hall with its windows along the side of the street, on the pediment sides and across the undivided saddle-shaped skylight on the peak of the hall.

### 3.3 Context

22

No specifications

#### 4 Evaluation

**Technical** 

Behrens uses the possibilities given by the materials steel, glass and concrete for building a highly modern production facility which had to fulfill all requirements for the unobstructed production of turbines. The building was also meant to lead towards a new aesthetics for industrial buildings, by being state-of-the-art on the field of building technology.

4.1 The truely new feature of the turbine hall was the facade of the main hall, which shows the construction of the building by having uncovered steel supports and spanned, full glazed window panels on the long side of the building. This meant a conscious renunciation of the industrial building trends at the time which focused on the architectonical covering with historicizing building elements.

# Social

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production sites. The prevailing view that better economic perspectives would open up with optimized and more human working conditions caused the demand for cleaner and more functional production buildings. "Through their monumentality the factory buildings are meant to show the power of the company, through the abundance of light, its humanity" (Quote Julius Posener: Berlin auf dem Wege zu einer neuen Architektur, München 1995²,S.389)

The turbine hall in Moabit bears witness of a changed attitude of the businessmen towards their

Cultural & Aesthetic

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At the moment of its completion Behrens' turbine hall was the most modern industrial building in Germany, especially from an aesthetic point of view. Its simplicity and openness stood in direct opposition to the eclecticism of the industrial architecture of the 19<sup>th</sup> century whose language of form in no way met the economic and civilizing meaning of technology and industry. The turbine hall stands as one of the milestones of a new aesthetic in industrial architecture and as a change from the architecture of the late 19<sup>th</sup> century to the objectivity of modern building.

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4.3

#### Historical

4.4

Behrens' appointment as artistic advisor for the AEG in 1907 takes place at the same time as the founding of the German Werkbund, which Behrens as a founding member belonged to. With promoting the artistic, moral and social renewal, the Werkbund demanded contemporary designed industrial products through a collaboration of the arts and the industry. Behrens' work for the AEG now allowed a practical implementation of the theoretical formulated goals of the Werkbund on a

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#### 4.5 general assessment

large scale.

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The turbine hall had an enormous fascinating effect on the people of the time. Because of this Behrens' building was celebrated as the "manifest of the young industrial architecture".

#### 5 **Documentation**

#### 5.1 principal references

28

Literatur (Auswahl): DOHRN. Wolf: Die Turbinenhalle der AEG in Berlin. Der Industriebau, vol.1, 1910, No. 6, pp.132-140

BERNHARD, Karl: Die neue Halle der Turbinenfabrik der AEG in Berlin. Zentralblatt der Bauverwaltung, vol.30, 1910, No.5, pp.25-29

BERLIN UND SEINE BAUTEN, Teil IX (Industriebauten, Bürohäuser), Berlin, Ernst & Sohn, 1971, pp.50f. 98, ISBN 3433005532

BUDDENSIEG, Tilmann, ROGGE, Henning, Industriekultur: Peter Behrens und die AEG 1907-1914, Berlin, Gebrüder Mann Verlag, 19903, ISBN 3-7861-1155-3

HILDEBRANDT, Werner, LEMBURG, Peter, WEWEL, Jörg Historische Bauwerke der Berliner Industrie (Beiträge zur Denkmalpflege in Berlin, Heft 1) Berlin, 1988, pp.210f. ISBN 3-920597-51-6

POSENER, Julius,

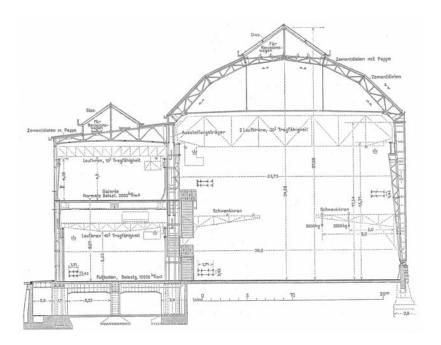
Berlin auf dem Wege zu einer neuen Architektur, München, Prestel Verlag, 1995<sup>2</sup>, pp.388f., 565f. ISBN 3-7913-0419-4

5.2 visual material attached 29

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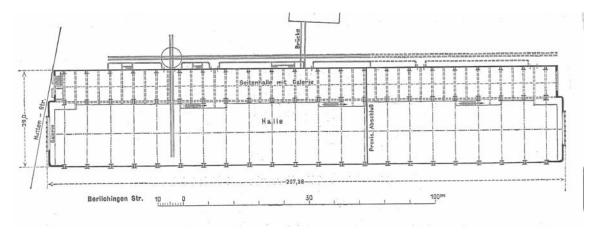
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depicted item: cross section,

source: Zentralblatt der Bauverwaltung, vol.30, 1910, No.5, pp.26



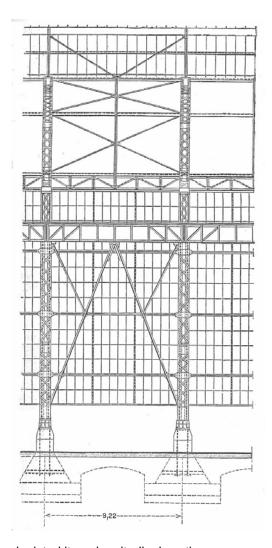
depicted item: plan ground floor,

source: Zentralblatt der Bauverwaltung, vol.30, 1910, No.5, pp.26

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depicted item: longitudinal section, source: Zentralblatt der Bauverwaltung, vol.30, 1910, No.5, pp.27

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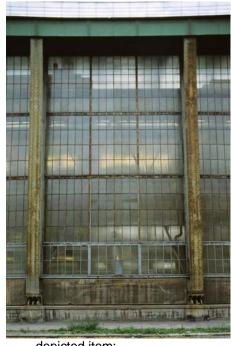


depicted item: Hutten-, corner Berlichingenstr.,

source: Winfried Brenne Architekten, date: August 2006



depicted item: Hutten-, corner Berlichingensstr., source: Winfried Brenne Architekten, date: August 2006



depicted item: detail façade Berlichingensstr., source: Winfried Brenne Architekten, date: August 2006

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depicted item: Berlichingenstr., source: Winfried Brenne Architekten,

date: August 2006

rapporteur/date:

5.3 Ulrich Borgert (mail@brenne-architekten.de) August 2006

Website: www.brenne-architekten.de

## 6. Fiche report examination by ISC/R

name of examining ISC member:

date of examination:

approval:

Wp/ref. no: NAI ref. no:

comments:

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