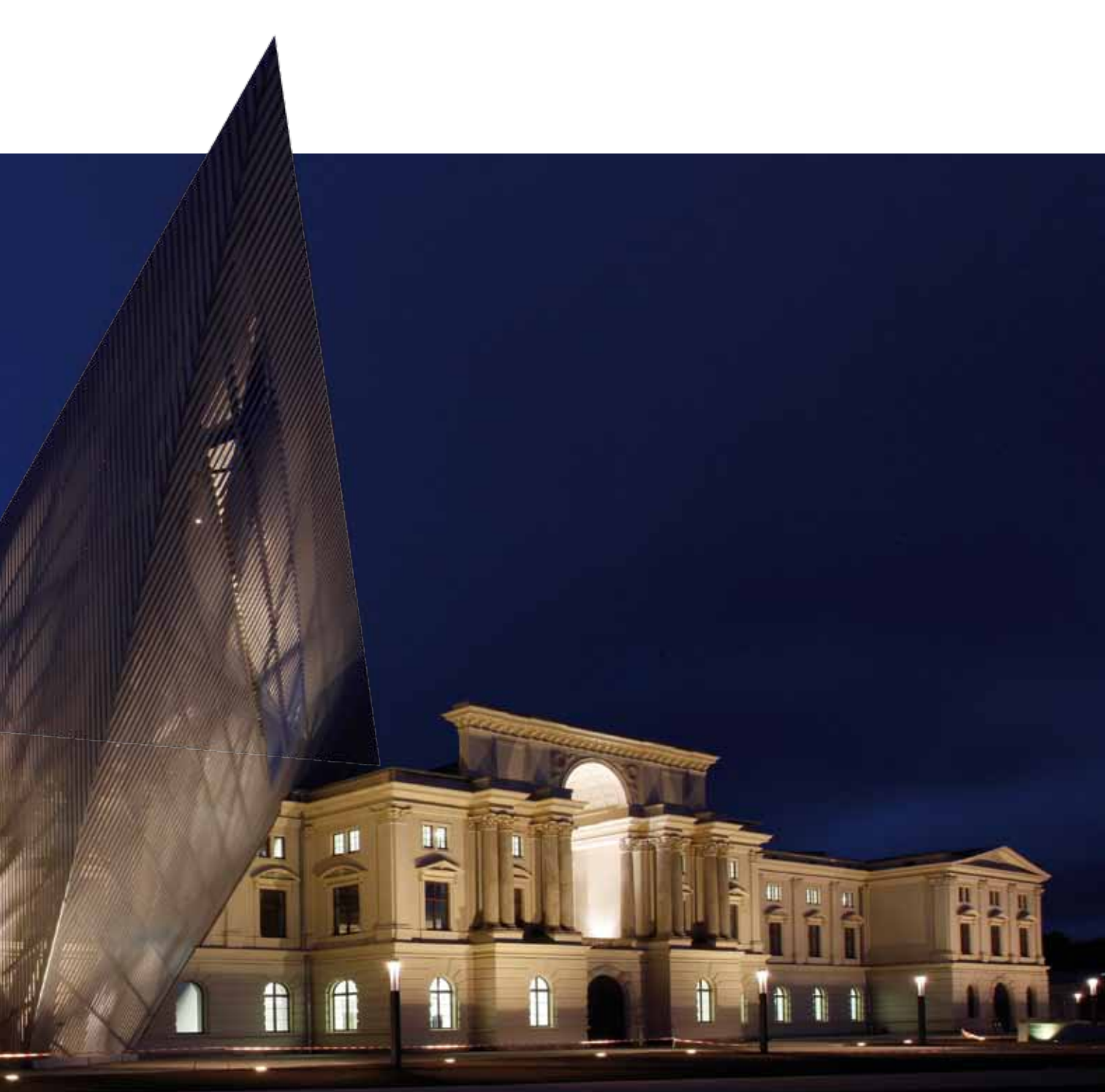




THE MUSEUM OF MILITARY HISTORY, DRESDEN



Daniel Libeskind's design for the extension to one of the most renowned military museums in the world

In October 2011, after almost 7 years of extension and renovation work, the Museum of Military History of the German Armed Forces reopened to the general public. The building, located north of the ancient city centre of Dresden, was completely redesigned by the American architect Daniel Libeskind, and its structure is now traversed by a wedge of metal and concrete. The Museum is in the Albertstadt district of Dresden. The original

nucleus was built in the XIXth century and, in 1994, became the main exhibition centre for the German Armed Forces. With around 1.2 million exhibits, it is one of the largest military museums in the world. The inventory of the museum tells the story of 6 centuries of German military history, from the late Middle Age to the present, with arms, ammunition, heavy artillery, uniforms, medals, flags and other exhibits. There are also pieces from the

Above. An external view of the museum of military history of the German armed forces, which in 2011 opened its doors again to the general public after being completely redesigned by the architect Daniel Libeskind.



IN THE SPOTLIGHT



ULTRABOND ECO V4 SP

It is a solvent-free, synthetic polymer-based single-coat adhesive in water dispersion, formulated in a ready-to-use light beige paste. It has an especially extended open time suitable for the installation of resilient floor coverings (vinyl, rubber, polyolefines, needlepunch and carpet flooring), provided they are dimensionally stable. It is easy to spread and has an excellent initial grab. After hardening ULTRABOND ECO V4 SP film is flexible and strong and can take heavy foot traffic and wheeled chairs. It is not inflammable with very low emission of volatile organic compounds (EMICODE EC1 PLUS). It can contribute up to **4 points** to obtain the **LEED** certification.

Royal Sassonian Arsenal on display and others from the army of the German Democratic Republic, along with collectors' pieces from the world of aeronautics, such as the landing gear from the space ship used for the Sojuz 29 space mission and the spacesuit worn by Sigmud Jähn (the first German pilot to enter space), both dating back to 1978. All in all there is a bit of everything, from uniform buttons to a submarine.

A Spectacular Extension for a Complete Change in Direction

The extension designed by Daniel Libeskind represented a complete change in direction for the museum. A new structure has been inserted, like a wedge, into the spatial layout of the existing building. According to Libeskind, the Museum "Supplies us with the space to reflect on human violence and distance ourselves from the continuity of military conflict, forcing us to face up to basic anthropological questions". The emphasis is not placed on the uniforms, weapons or the other military equipment, but rather on the human side to military history: what provokes violence? How does it start? And how can we overcome it?

The extended structure also offers a spectacular view of Dresden's ancient city centre, rising above the roofs of the old city: from the outside a symbol of renewal and from the inside a window on the city.

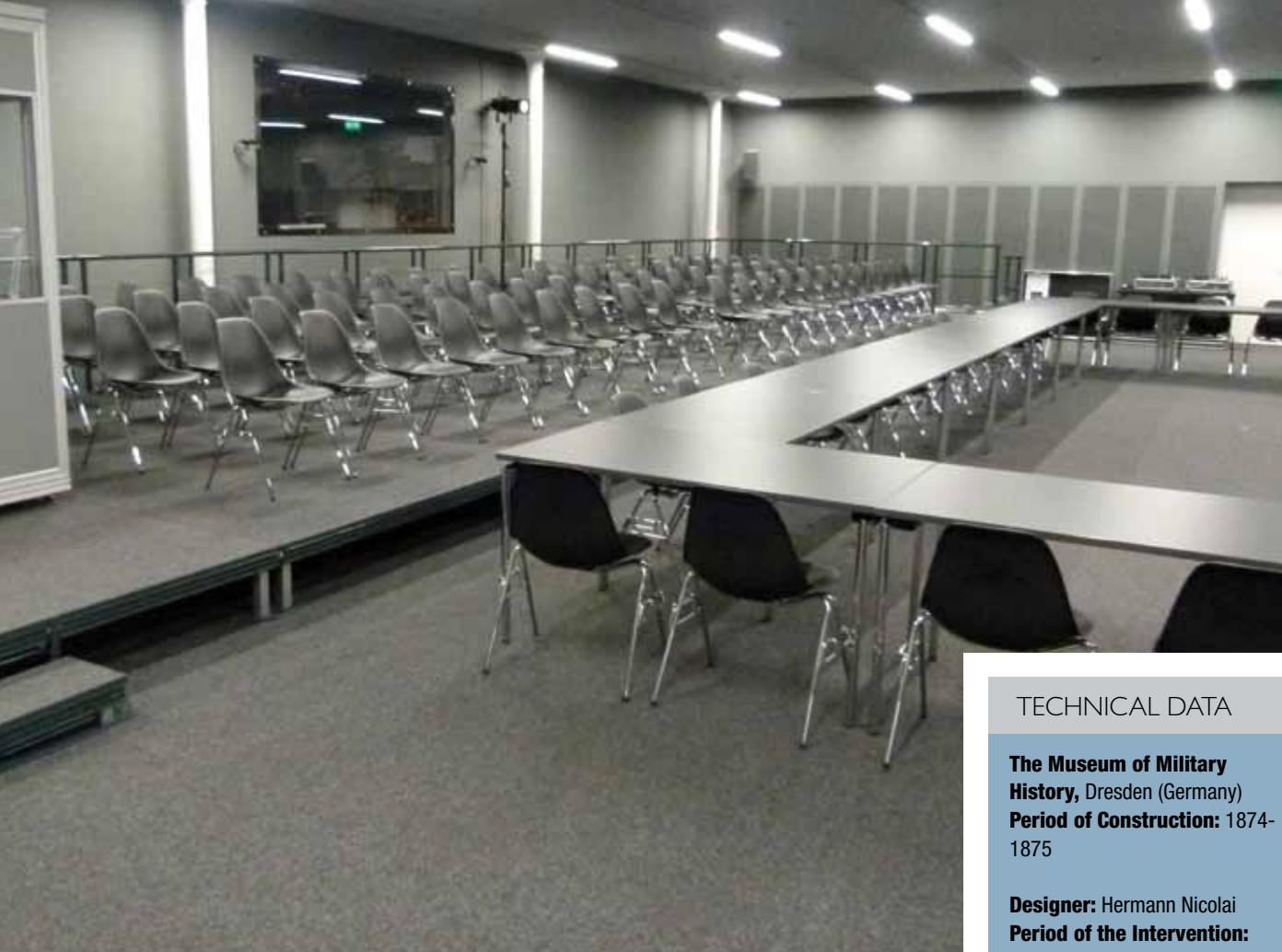
The new façade of the building is an element of contrast to the old city. Its characteristic openness and transparency are a direct contrast to the sense of closure and solidity transmitted by the existing structure. The old building, therefore, represents the rigour and authoritarianism of the past eras in which it was built, while the intention of the designer was that the new structure should incarnate the open-mindedness of a democratic society and how the armed forces are now used within that society.

This constant correlation is evident within the building, with new rooms that live alongside the older rooms, while in the new structure the spaces without columns are a contrast to the network of columns in the older part of the building. The exposed concrete walls that slope in different directions have been incorporated into the old structure and are a recurring theme in the architectural designs created by Libeskind.



A WEDGE OF METAL AND CONCRETE THROUGH THE FRONT OF THE MUSEUM.





Quality Floors, Expertly Installed

Mapei also took part in this project by supplying solutions and products that enabled an eco-sustainable administration area to be created. While the display areas are dominated by floors made from “solid” materials such as concrete, around 3500 m² of resilient and textile floor coverings were installed in the offices and conference rooms of the administration area. Designers and floor installers all agreed on the choice of professional products from the Mapei range for installing this type of flooring. Before bonding the flooring, the substrate was prepared using Mapei solutions suitable for this type of application. PRIMER G synthetic resin-based primer in water dispersion, with low emission of volatile organic compounds (VOC), was used as an overall general treatment for the substrates. PRIMER MF, a two-component, solvent-free epoxy product, on the other hand, was used to consolidate and seal the cementitious substrates, and ULTRAPLAN was used to level off the surfaces. This levelling product, apart from having low emission of VOC, is characterised by its ease of use and rapid setting properties, and allows a strong surface to be created that is suitable for all types of floor covering. The resilient floor coverings were made up mainly of natural rubber. In the Dresden Museum of

Above. Around 3500 m² of resilient and textile floor coverings were installed using mapei products in the offices and conference rooms of the administration area.

Military History itself, the flooring was bonded with ULTRABOND ECO V4 SP, a high-performance adhesive in water dispersion with low emission of VOC, particularly suitable for homogeneous and non-homogeneous PVC flooring, as well as for vinyl flooring in general and rubber. In some sections, natural rubber and conductive rubber flooring was installed, with the capacity of offering good protection from static electricity and protection for the components of the electrics. The adhesive chosen in this case was ULTRABOND ECO V4 SP CONDUCTIVE, a product in water dispersion with low emission of VOC, particularly suitable for installing conductive rubber and textile floor coverings on substrates prepared to spec. Lastly, textile flooring was installed, characterised by its high versatility and resistance to abrasion. The adhesive chosen in this case was AQUACOL T, a solvent-free, ultra rapid-setting synthetic polymer-based adhesive in water dispersion with very low emission of VOC, ideal for bonding textile floor coverings and linoleum.

TECHNICAL DATA

The Museum of Military History, Dresden (Germany)
Period of Construction: 1874-1875

Designer: Hermann Nicolai
Period of the Intervention: 2004-2011

Designer: Daniel Libeskind
Intervention by Mapei: supply of products to prepare the substrates and install rubber and textile floor coverings.

Client: Staatsbetrieb Sächsisches Immobilien und Baumanagement, Dresden

Laid Materials: Natural rubber floor covering (supplied by Mondo and Nora) and textile floor covering (by Findeisen).

Installation Company: reeselubic-woehrliin Gesellschaft von Architekten GmbH, Berlin
Laying Company: Schandert Raumgestaltung GmbH, Jüterbog (Germany)

Mapei Co-ordinator: Lothar Jacob, Mapei GmbH (Germany)

MAPEI PRODUCTS

Preparing the substrates: Primer G, Primer MF, Ultraplan ECO

Laying rubber and textile floors: Aquacol T, Ultrabond Eco V4 SP, Ultrabond Eco V4 SP conductive
 For further information see the websites www.mapei.com and www.mapei.de