

➤ “Each autonomous, and yet together”

At the inauguration of the Nordic Embassies in Berlin in the autumn of 1999, Queen Margrethe II of Denmark formulated this motto for the future cooperation of the five Nordic countries. Twenty years later, this unique project is still making a statement about international friendship – and the lasting, low maintenance beauty of molybdenum-containing stainless steel.

The Nordic Embassies are a complex of buildings where you can not only learn about collaboration between countries, but also see this concept expressed in architectural form. A green copper band, which has since become a famous landmark, encompasses the cluster of individually-designed embassy buildings. The supporting structure of this 15-meter high band is made of molybdenum-containing stainless steel, just one of its numerous applications at the Nordic Embassies.

Both united and unique

After the fall of the Berlin Wall and the reunification of Western and Eastern Germany in 1989, it was decided to relocate the seat of government back to Berlin. The five Nordic countries – Denmark, Finland, Iceland, Norway, and Sweden – used this opportunity to realize the idea of a joint embassy complex. This unique cooperation was initiated not out of necessity, but rather out of a sense of common heritage, common languages, and shared values and convictions.

The overall concept of the site, designed by the Austrian-Finnish architects Berger and Parkkinen, perfectly captures the idea of a strong community. Arranged according to their location on the map, the embassy buildings are complemented by a shared cultural center and event venue called “Felleshus”. These six, uniform-height structures are built in such a way as to create the illusion of sections that have been carved out of a single block. Intersecting paths and shallow ponds representing the seas simultaneously divide and link the buildings.

Each embassy building is designed by architects from its respective country and has its distinctive identifying features. What unites the buildings is the consistent use of materials



› Aerial view of the embassy complex.

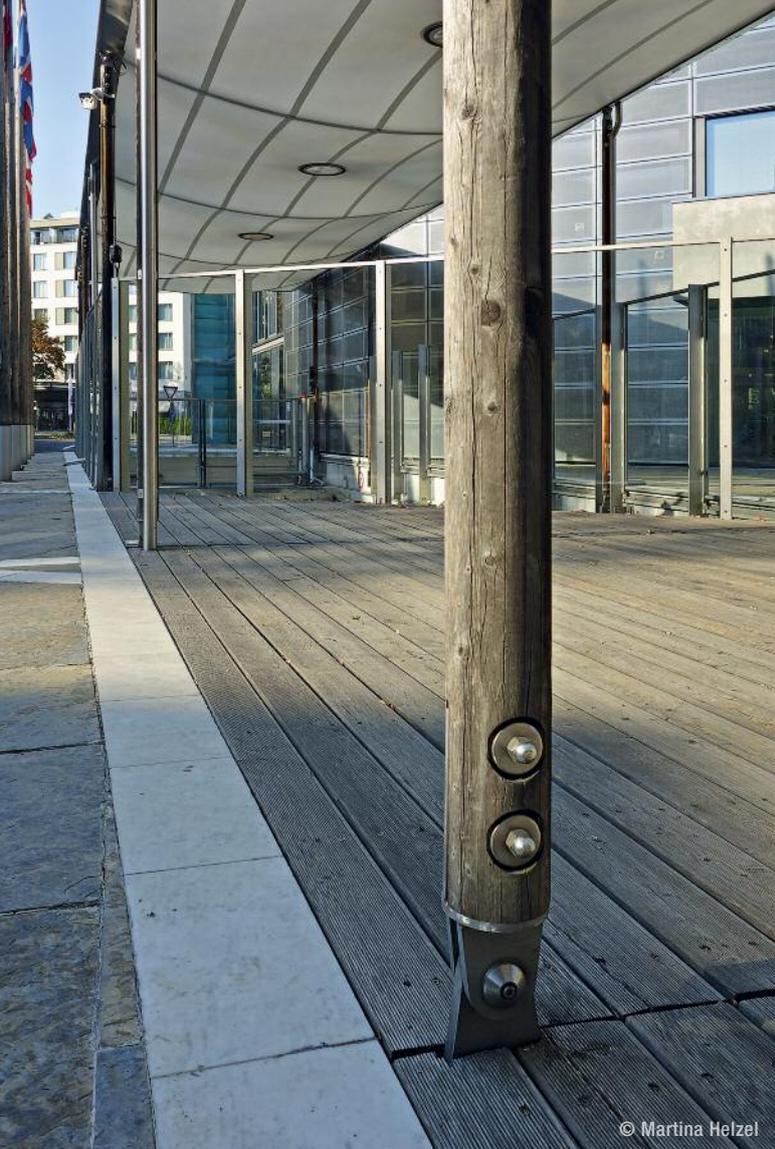
typical of the Nordic region like wood and natural stone, combined with glass and stainless steel. In this interplay of materials, stainless steel can show off all its versatile properties: an elegant appearance in plain, perforated façade panels, its corrosion resistance at almost invisible fixing points, and its strength in huge load bearing structures.

Linked by stainless steel

Wrapped around the site and enclosing the six buildings is a curved, 226-meter long band consisting of louvers with around 4,000 prepatinated copper slats. Generous openings and different angles of inclination among these louvers offer light, air, and protection. These apertures also provide visual relationships between the outside and the inside of the embassy buildings.

› Street view of the copper band encircling the Nordic Embassies.





- Stainless steel is used in many components in this project: fasteners, drain pipes, anchoring for flagpoles, support profiles for the glass wall which separates the courtyard from the public spaces, and not least, in the perforated facade of the Danish embassy in the background.
- Copper slats and a stainless steel frame are a perfect combination: The materials have a similar coefficient of thermal expansion, avoiding stresses with temperature variations and the pairing does not suffer from galvanic corrosion.



The slats are fixed to a 15-meter high vertical support structure made of Type 316Ti stainless steel hollow-sections. A variety of reasons prompted the architects' material choice. In terms of functionality, the benefit is that copper and stainless steel do not suffer from galvanic corrosion and stainless steel is regarded as virtually maintenance-free. Additionally, a stainless steel frame proved to be only slightly more expensive up-front than construction in coated steel, which would have required regular recoating, a near-impossibility given that thousands of slats would have to be removed and reattached. Design considerations were the final deciding factor. The materials concept for the embassy complex called for the use of uncoated, unfinished surfaces, thereby allowing the natural properties of the individual materials to shine.

While other materials, especially wood, developed their natural patina over the years, the stainless steel retained its clean and bright appearance. Washed regularly once a year with plain water to remove any dirt, the stainless steel shows no traces of staining or corrosion. Even stainless steel elements like the mounts of the flagpoles or railings, which are close to the ground, have resisted de-icing salt exposure over the years thanks to the 2% molybdenum content of Type 316Ti.

Stainless steel complements the range of building materials used for the Nordic Embassies. Knowledge of the materials' properties was key to expressing the concept of "each autonomous, and yet together" in the design. The blend of strengths and weaknesses of each material become something greater than the sum of their parts, which also serves as a metaphor for the relations between the five nations. Although the buildings are highly-secured, the design creates a minimalistic and light atmosphere that feels inviting and relaxed – typical of the Nordic countries. The high copper band does not come across as an insurmountable wall but instead offers the entire complex an appropriate, urban presence in the heart of Berlin. At one end of this band, the Felleshus, which is open to the public, welcomes people to exhibitions, readings and other events related to the Nordic culture, or just to have a coffee in the bar and enjoy the Scandinavian design.

Overall, the Nordic Embassies' Type 316Ti stainless steel elements have performed beautifully during the 20 years since inauguration. The consistent use of stainless steel throughout the complex is reminiscent of the shared cultural elements between the member countries. And like the friendship between these Nordic nations, the stainless steel will continue to endure. (Martina Helzel)