

History you can touch and feel
– while enjoying the views in cozy comfort.



On a steep rocky promontory at the northern tip of Bornholm sits the impressive medieval fortress of Hammershus. It is a perfect destination for the whole family, offering an exciting mix of adventure and history, nature and relaxation in the comfortable visitor's center powered by green, geothermal energy.



The Hammershus Castle Ruins

The largest castle ruin in Northern Europe

Hammershus is Scandinavia's largest medieval fortification. It is situated 74 meters above sea level on Hammeren at the northern tip of the Danish island of Bornholm in the Baltic Sea. The site consists of the main castle residence and the imposing Mantel Tower, and is surrounded by a great wall of stone that stretches 750 meters around the castle grounds.



Top view of the Hammershus Visitor Center

Hammershus yesterday

Originally constructed in the early 13th century, it was long believed that the castle was built as a private residence for the Archbishop of Lund. However, recent evidence uncovered at the site suggests that it was constructed as a royal residence for Valdemar II of Denmark and as a base for the Danish crusades.

The Hammershus fortress was fought over by various Danish and Swedish kings and changed hands several times throughout its storied history. For the first 500 years of its life, Hammershus served as the



The Visitor Center and bridge towards ruins and the castel



“Thanks to this modern and efficient geothermal energy system, visitors, guests, students and employees can learn about Danish history in comfort. At the same time, the Danish Nature Agency is able to save money while Bornholmers make a direct contribution to become carbon neutral.”

Soren Jensen, Sales Manager at Klimadan A/S

stronghold of the island's various rulers. The fortress was rebuilt and extended on several occasions. In 1822, the ruins were placed on the national historic register.

Hammershus today

Recently, a new Visitor Center has been built into the rocks opposite the ruined fortress, which has been a popular tourist destination in Denmark for decades. The center was designed by Arkitema Architects and Professor Christoffer Harlang. The design concept sought to create a discreet building that did not intrude on the surrounding protected forest or the island's best-known tourist attraction.

Hammershus is a place where you can spend hours exploring, discovering history or simply

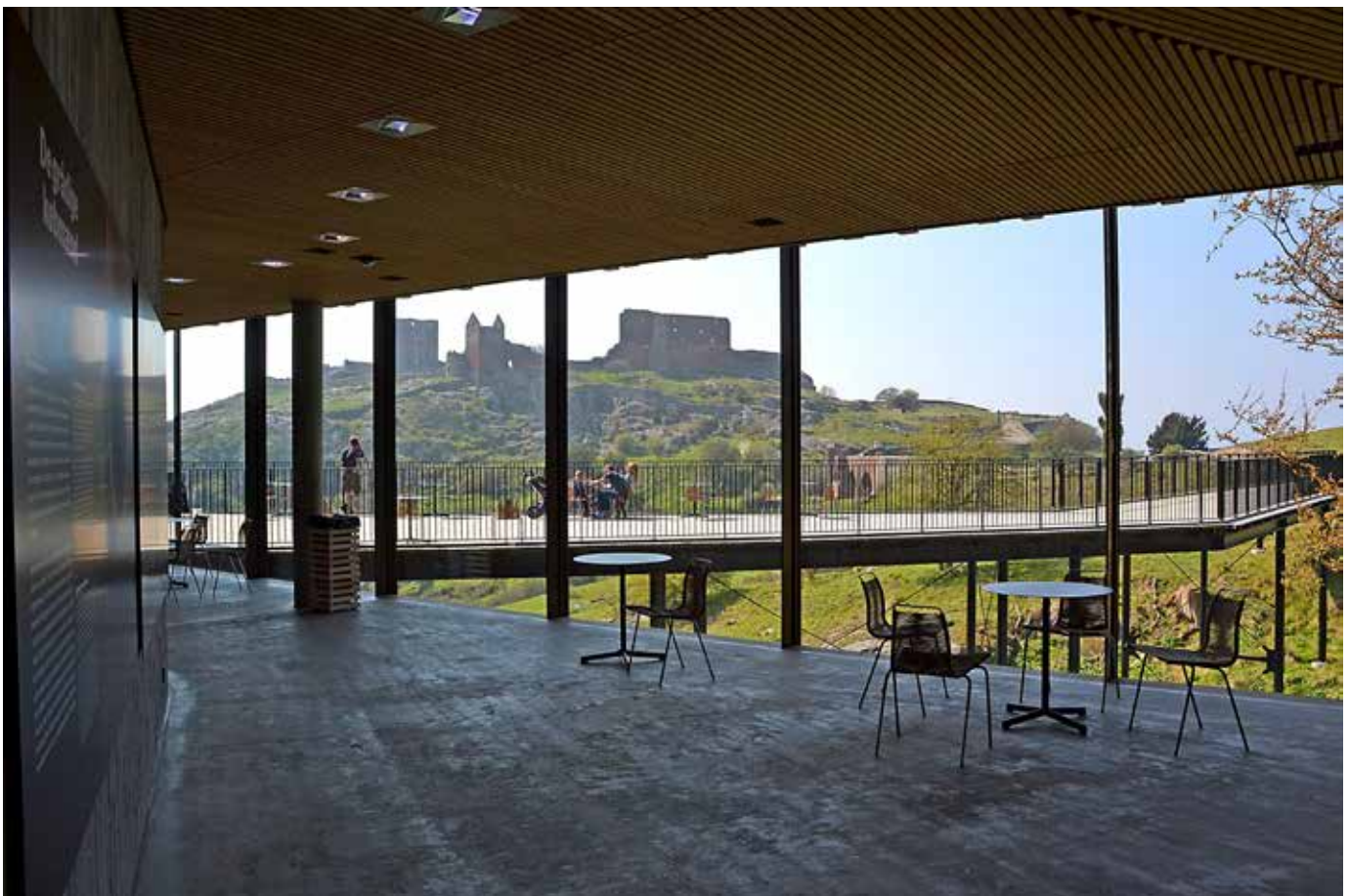
relaxing as you take in the fantastic panoramic views of the historical ruins. The permanent exhibition in the visitor center features numerous relics retrieved from the site. There is also a diorama showing what the castle may have looked like in its glory days. When it's time for a little refreshment, the charming family-run Café Solveig offers guests the delights of a traditional Danish menu.

One of the design elements that Arkitema and Christoffer Harlang chose to include in the project is a roof that follows the topography of the hilly landscape. As a result, it is not possible to see the visitor center as you approach Hammershus. This imaginative roof design offers two immediate advantages to visitors: the building does not distract attention from the main attraction while the roof

itself becomes a natural vantage point with ample space for enjoying the views.

The roof gives a light and airy feel to the building and allows light to enter from both sides, enhancing the feeling of space. It is designed as a 'landscape grandstand' with generous seating provision and plenty of room to walk about. Far from compromising the historic site, this public space enhances the Hammershus experience with a range of visitor facilities in a sensitive and sustainable manner. The center is open to visitors throughout the whole year.

"We chose a functional roof to enhance the visitors' experience of the landscape and to lessen the visual impact of the building as they approach the center. The roof thus becomes a natural part



Show room



View of the Visitor Center from the side of the castle

of the surrounding path system, rather than a disturbing element in the landscape. In other words, we offer visitors an added opportunity that wouldn't have been available to them if they simply walked into a conventional visitor center. We felt that it was important to create a dynamic landscape route, where visitors have plenty of opportunities to experience the natural surroundings and the historical ruin", explained Poul Schülein, Senior Partner at project architects Arkitema.

In recent years, Hammershus has been the site of the 'Wonderwall' music festival, where thousands of people gather on the castle grounds to listen to Danish and international acts.

Visitor center benefits from Thermia heat pumps

The Hammershus visitor center extends to around 850 m² and features an exhibition space, souvenir shop and restaurant. It is open all year round. The heating

and cooling system is based on Thermia Mega XL (21-88 kW), a new commercial ground-source heat pump with an inverter-driven

compressor. The main advantage of this heat pump is that it can continuously adjust heating or cooling output to current demand.



Thermia Mega XL heat pump

Fact Box

Commissioning date:
Spring 2018

Location: Hammershus, Bornholm, Denmark

Architect: Arkitema Architects, in cooperation with Arkitema Urban, Professor Christoffer Harlang and Wissenberg A/S.

Heating system: Klimadan A/S

Building characteristics:

- Heated area: 850 m²
- Heating: 165,000 kWh/year
- Cooling: 35,000 kWh/year

Applied solution:

- Geothermal heating
- Thermia Mega L (14-59 kW)
- 2,000 meters of ground source collector tubes
- Buffer tanks for cooling and heating
- Heating / cooling distribution system via floor heating and ventilation system

In addition, the Thermia Mega can also provide simultaneous heating and cooling. If the primary function is cooling, any heat surplus is used to produce hot water.

The new energy solution has enabled the Danish Nature Agency Ministry provide extremely energy-efficient heating and cooling that is sustainable and renewable while guaranteeing superior comfort.

The Hammershus visitor center is an excellent example of modern architecture that perfectly blends into its historical landscape setting and uses a high level of sustainable and green technology.

“It’s been an incredibly exciting task where we needed to work to a tight brief and some very clear guidelines. We chose to design a center using exclusive materials to match the location, while also focusing on making the place feel inviting and homely. It needed to be a place where everyone feels welcome and where the architecture is easy to understand.”

- Poul Schülein, Senior Partner at Arkitema

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