

# architettura & design

la rivista

## New Monte Bianco cableway

"the eight wonder of the world"

15  
anni  
years

Iconic  
Furniture  
Designs

## World Auditorium, Theatres & Concert Halls

Philharmonie de Paris

LAC Lugano

Montforthaus Feldkirch

House of Music Aalborg

National Theatre of Bahrain

WIPO Geneva

 Dietrich | Untertrifaller  
Architekten  
Bregenz (Austria)

PROJECT LOCATION  
Treletstrasse 17  
A- 6833 Klaus (Austria)



*The secondary school consumes less than 15 kWh/  
m<sup>2</sup> total energy per year*

# School, sport and multipurpose hall “in Klaus”

The secondary school marks the beginning of a graduated arrangement of large structures along the smoothly curving street. Exorbitant costs of operation called for introducing clear economic and energy guidelines when announcing the competition for the design of the urgently needed refurbishment of the old school building. After a record construction time of only 18 months upon nominating the winner of the competition, operations were commenced at the school building, which consumes less than 15 kWh/m<sup>2</sup> total energy per year and fulfils the Vorarlberg passive-house guidelines.

The L-shaped building is slightly removed from the street and its wide south façade flanks a square. The section of the building associated to the public space is slender and houses a covered atrium and the library of the three municipalities on the floor above, as well as the generous entrée. The building section stretching far north houses classrooms along ist eastern and western façades. Three building uses extend parallel in between: a wide corridor is located in the center, on the right there is a three-storey space, lit from above, rhythmically interrupted by the foot bridges providing access to the classrooms, and lining the left side of the building is a strip of adjoining rooms, repeating the same layout on all three storeys. The architects succeeded in achieving construction costs of only three per cent above that of a conventional construction project, while reducing energy costs by 70 per cent compared to the old school building. No cut-backs were required in terms of architectural details.

During the second construction stage the gym once with a swimming pool and with the strong need of renovation was replaced by a new building: a two level sports hall and a three level multi-purpose area that creates spaces for day care, clubs and events. This area is directly accessible from the school through a gang way that protects from the bad weather. As a successful pilot project the school building received several architectural and energy saving awards: State Prize for Architecture and Sustainability and timber construction award.





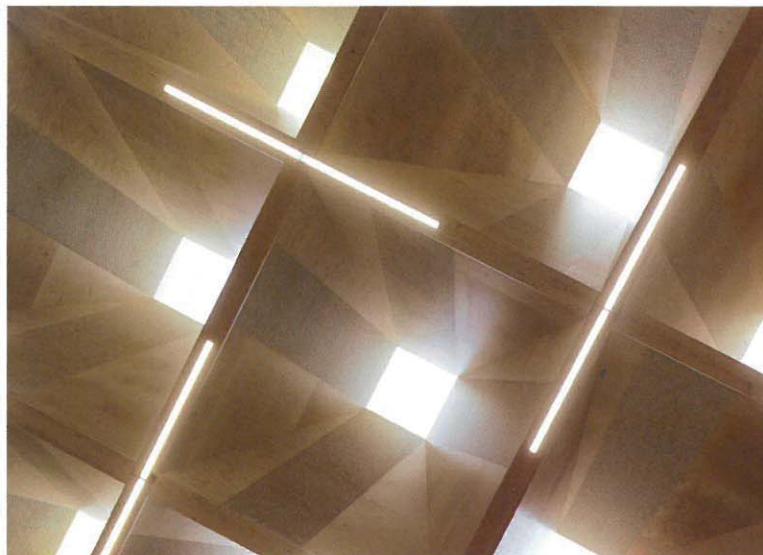
# Scuola, sport e sala polifunzionale “in Klaus”



*La scuola secondaria consuma meno di 15 kWh/m<sup>2</sup> totali di energia all'anno*

La scuola secondaria segna l'inizio di una disposizione graduata di grandi strutture lungo la strada che curva dolcemente. Costi esorbitanti dell'operazione vengono definiti per introdurre chiari orientamenti economici ed energetici che annunciano il concorso per la progettazione urgente della ristrutturazione del vecchio edificio scolastico. Dopo un tempo record di costruzione di soli 18 mesi su nomina del vincitore del concorso, le operazioni sono state avviate per l'edificio scolastico, che consuma meno di 15 kWh/m<sup>2</sup> energia totale all'anno e soddisfa le linee guida della casa-passiva di Vorarlberg.

L'edificio a forma di «L» è leggermente rimosso dalla strada e la sua ampia facciata a sud affianca una piazza. La sezione



dell'edificio associato allo spazio pubblico è sottile e ospita un atrio coperto e la biblioteca dei tre comuni al piano di sopra, così come la generosa entrée. La sezione dell'edificio si estende in lontananza alle aule a nord delle case lungo le facciate est e ovest. Tre edifici utilizzano l'esteso parallelo tra di loro: un ampio corridoio si trova in pieno centro, a destra c'è uno spazio a tre piani, illuminato dall'alto, ritmicamente interrotto dalle passerelle di accesso alle aule, il lato sinistro dell'edificio è rivestito da una serie di camere adiacenti, ripetendo lo stesso layout su tre piani.

Gli architetti sono riusciti a mantenere i costi di costruzione superandoli solo del 3% per cento rispetto a quelli di un progetto convenzionale, riducendo al contempo anche quelli energetici del 70% rispetto al vecchio edificio scolastico. Non sono sati richiesti tagli in termini di dettagli architettonici.







[project type: Secondary School, sports and multipurpose hall]

**location**  
6833 Klaus, Treiletstraße 17

**architecture**  
Dietrich | Untertrifaller

**project management**  
P. Nußbaumer, I. Pfeiffer

**competition / construction**  
2001 [1. prize] / 2013-14 / 2002-03

**floor space / volume**  
6 940 m<sup>2</sup> / 44.050 m<sup>3</sup>

**mission general planning**  
Ecology Passivhaus

**number**  
250 students / 600 visitors

**awards**  
Staatspreis f. Architektur und  
Nachhaltigkeit / Holzbaupreis Vorarlberg  
/ Energy Globe Vorarlberg

**partner**  
structural eng. - concrete: gbd,  
Dornbirn bzw. Mäder + Platz, Bregenz

**structural eng. - wood**  
Pock, Spittal bzw Merz Kaufmann  
Partner, Dornbirn

**building services eng.**  
gmi, Dornbirn bzw. Synergy, Dornbirn

**timber engineering, structural and facade works**  
Dobler Holzbau GmbH Röthis

**skylights, flat roofs and plumbing works**  
Heinzle Spenglerei Koblach

**electrical eng.**

Hecht, Rankweil

**acoustics**

Brüstle, Dornbirn

**building physics**

team gmi, Schaan bzw Weithas, Hard

**bauleitung**

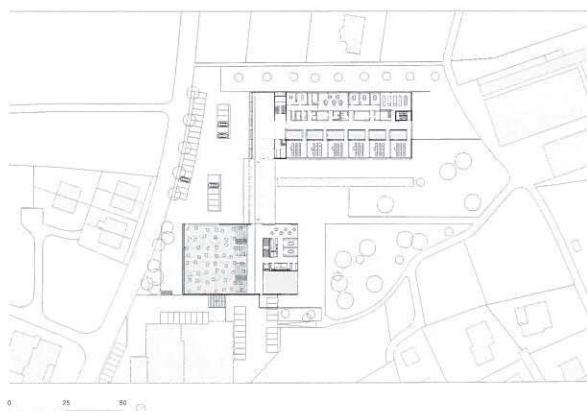
Gmeiner, Schwarzenbach

**landscape design**

Rotzler Krebs, Winterthur (CH)

**image credits**

Bruno Klomfar



## HOLZINNOVATION MIT TRADITION TIMBER INNOVATION WITH TRADITION



**Dobler Holzbau GmbH**  
Interpark Focus 2 | 6832 Röthis  
T 05523 65311  
[www.dobler-gruppe.at](http://www.dobler-gruppe.at)

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## Lieferung der Dachfenster sowie Ausführung der Flachdach-und Spenglerrbeiten

*Delivery of roof windows and execution of flat roofing  
and plumbing works*



- ◆ **Spenglerearbeit**  
Spenglere work
- ◆ **Flachdach**  
Flat Roof
- ◆ **Fassade**  
Facade
- ◆ **Sanierung**  
Restoration

Koblach 05523-62343 - [www.heinzle-spenglerei.at](http://www.heinzle-spenglerei.at)