

Nuova serie / New series n. 07 - 2021

ARCHALP

Rivista internazionale di architettura e paesaggio alpino / Revue internationale d'architecture et de paysage dans les Alpes / Internationale Zeitschrift für Alpine Architektur und Landschaft / Revija za alpsko arhitekturo in pokrajino / International journal of alpine architecture and landscape



Il corpo vivente. Interpretazioni progettuali dell'architettura alpina storica

Le corps vivant. Interprétations projectuelles de l'architecture alpine historique / Der lebende Körper. Designinterpretationen historischer Alpenarchitektur / Živo telo. Oblikovne interpretacije historične alpske arhitekture / The living body. Design interpretations of historical Alpine architecture



The legacy of building in the mountains.

A report from the Grisons

In the Alps, the cultural landscape changes with the way people live and act. Social structures and economic conditions shape human needs and define the appearance of the territory and landscape, contributing to the development of specific settlement and housing models, in close relationship with the place.

The local typology and construction technologies, developed throughout the history, thus embody the responses to the particular local housing needs, characterizing the places according to different cultural influences.

These conditions, together with the influences of the environmental and natural context, as well as the cultural aspects linked to the traditions of the local communities, today are still distinctive elements of the characterization of the villages and mountain valleys.

The essay, starting from design experiences conducted personally by the architects in their region of origin – the Grisons – explores the many suggestions that the “legacy” of the different ways of building in the mountains offered for their design work. From space planning to materials, from construction solutions to typology, the architectural projects of Capaul & Blumenthal, both in the case of the recovery of the existing heritage and in the case of new buildings, seem to move from a clever reinterpretation of the complex heritage that combines *savoir faire*, knowledge, inspirations and materials, to seek careful answers to the current problems of the Alpine world.

Ramun Capaul, Gordian Blumenthal

Graduated from ETH Zurich, in 2000 they founded Capaul & Blumenthal architects, their joint office in Ilanz (Grisons, Switzerland).

Winners of numerous distinctions, in 2008 they received the prestigious Swiss Art Award for architecture, the Philippe Rotthier European Prize in 2011, as well as the Constructive Alps prize in 2015 for sustainable construction and renovation in the Alps.

Keywords

Capaul & Blumenthal, Grisons, contemporary architecture, legacy, Alpine tradition.

Doi: 10.30682/aa2107n

The legacy of cultural landscape

The topographical morphology of the Alpine territory forms spaces and allows strong spatial experiences. Depending on the season, the daytime, and the weather, its colours change, and it becomes more inviting or hostile. In contrast to the natural landscape, the cultural one changes with humans' way of living and acting. Throughout several generations until the middle of the 20th century, the landscape in Grisons was characterized by small-scale agriculture. Hay was stored near harvests in barns, where the animals were fed later in the year. Small, scattered plots of land were marked by boundary stones or a stone cairn. With small-scale agriculture, many toponyms served as an orientation device in the fields.

With industrialization, the fields were made accessible by roads and the hay could from then on be brought to large farm buildings in the village. The stables in the landscape became obsolete, the fields

were consolidated into larger parts and new boundaries were defined. As a result, many local names lost their meaning and disappeared. The landscape became anonymous and lost its spatial density. Also in Val Lumnezia, the core of the historical settlement was the farm unit, which included a house, a stable, and a garden. In some small hamlets which have hardly grown since their origin, the farm units are still recognizable. The core of Lumbrein is also based on a system of adjoining farms. Today, fragmentation and mixing of ownership and use rights make it difficult to recognize the individual farm units. This dissolution and fragmentation of the farm units is related to the progressive densification of the village.

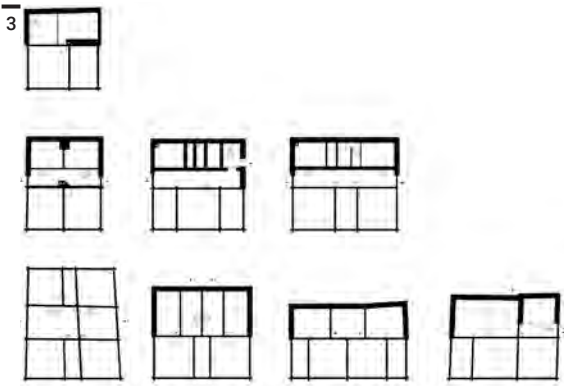
The legacy of types of housing

Social structures and economic conditions shape human needs and lead to forms of sharing and separation but they can ultimately define a spe-



Opening picture
Casa da Meer,
Lumbrein, internal
view (photo Lucia
Degonda).

Fig. 1
Small scale
agriculture
landscape in Grisons
(photo Capaul &
Blumenthal).



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Fig. 2
Village center of
Lumbrein, plan of the
residential floor.

Fig. 3
Housing typologies
(single family, two
families, variations)
in Lumbrein.

Fig. 4
Casa da Meer,
Lumbrein, external
view (photo Capaul
& Blumenthal).



cific type of building. The architectural heritage in the old village of Lumbrein consists mainly of wooden buildings in the “Strickbauweise” of the 18th and 19th centuries. The most important type of house of that time is the double house divided in the ridge direction with a transversal corridor. In the 18th century, it was usually built in its basic classical form, while in the 19th century it underwent many modifications. What all types had in common was that they shared a common space within the house.

The first double house in its classic form was originally occupied by two families who both had their own entrances but shared the central corridor – *zulèr* – that runs from one entrance to the other and that separates the two *Stube* which are usually oriented towards the valley from the two kitchens in the northern half of the house. In the 19th century, variants of the double house evolved, for example with the addition of a room between or next to the *Stube*. More recent examples of the continuing evolution of this double-house type date from the first half of the 20th century: the two households are no longer next to each other and do not share a common *zulèr* within the house anymore. They are divided by being placed on top of one another. Also, the house now has a higher proportion and enlarged vertical windows.

One of the first projects in our office was the transformation of a 18th-century double house centu-

ry into a single-family house. In the second half of the 20th century, because of economic and social changes, two smaller families that this time were not related to each other and did not share the same interests and concerns increased the need for privacy. Consequently, the corridor was divided in the middle by a wall.

The double house type, which had been sustained for centuries, lost a generous shared area, and with it an important spatial quality; since the 1960s, the two parts of ‘Casa da Meer’ were thus inhabited by parties who now only shared a narrow entrance area. As many other double houses – undesirable by the younger generation, who preferred to build a new house on the edge of the village and sell their parental home.

In 2000, a change of ownership took place, and the house was now to be inhabited by a single family. This allowed transforming the two-family type house into a single-family dwelling with few interventions, by removing the separating wall in the corridor, consolidating the two units, and restoring the generous original spatial quality of the house. The two symmetrical external staircases leading to the two entrances were kept, while inside one of the two staircases leads to the bedroom floor and the other to the basement. The existing rooms were put to a new use: one of the two kitchens was converted into an entrance room and one of the living rooms became a dining room.

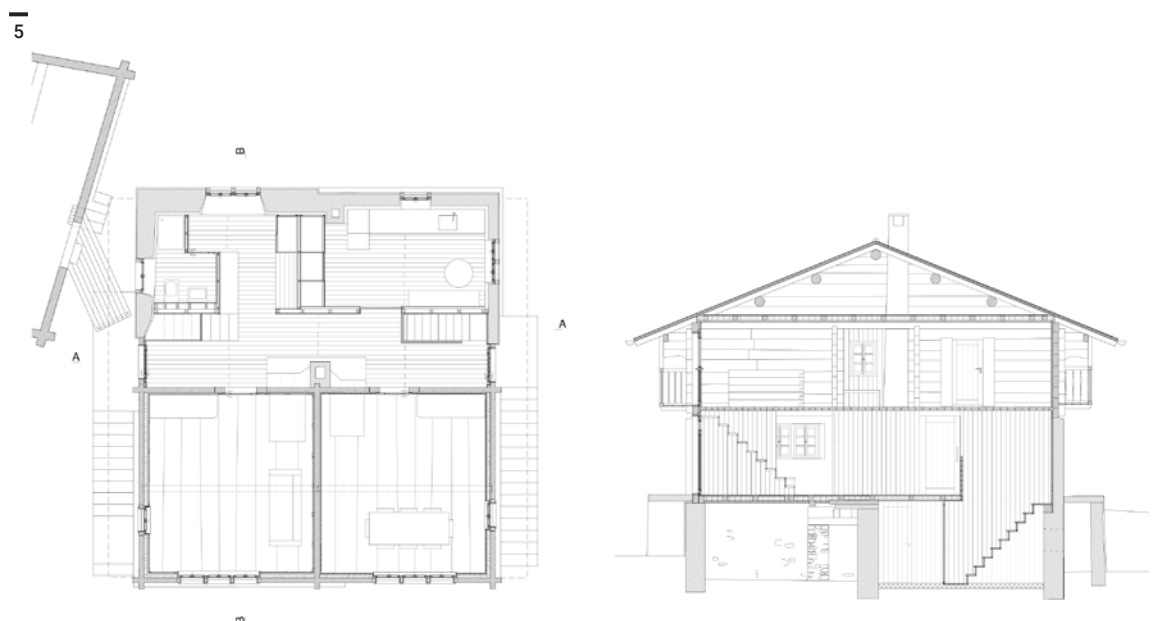


Fig. 5
First floor plan and section.



Figs. 6-8
Internal views (photo
Lucia Degonda).

The legacy of the former typology and technology

Last year, we developed a project in the village of Bonaduz, located near Chur, at 660 m above the sea level, developing the theme of the double house under one roof. In 1908, the village was destroyed by a fire. The regular building pattern that was developed after the fire has meanwhile been changed greatly by new buildings. An existing house with an attached stable was to be replaced by a multi-family house.

The question was whether the traditional method of timber construction, which is familiar in the valleys of the Surselva, is justified in this context, and how the construction principles and spatial qualities can be developed for a larger house.

The new house refers in its three-part layout to the *Strickbau* typology. Under one roof, two houses share an open staircase. Where the original house stood, the larger apartment develops over two floors and has an internal staircase. On top of this, there is a smaller one-story apartment. In place of the former stable, a single-family house with five and a half rooms extends like a tower over all three floors. Another experience in Davos Munts in Val Lumnezia was the development of a leisure infrastructure



Fig. 9

Haus Frasnelli,
Bonaduz, ground
floor plan.

Fig. 10

External view (photo
Sven Schönwetter).



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Fig. 11
Internal view (photo
Sven Schönwetter).

realised step by step. At first, the natural landscape was transformed into an artificially created swimming lake, and later a barn was converted into a kiosk and cloakroom. In 2012, a competition was launched by the municipality to develop a new infrastructure building with a small café. As the Davos Munts site is at an agricultural altitude between the villages and the alpine pastures, our project refers to the *Maiensäss* buildings, the temporarily inhabited buildings in the valley.

These vernacular buildings are characterised by their simple, straightforward, and unclad construction, where the building materials come from the closest possible source. So, the local availability of materials was crucial for our new building – both from an ecological and economic point of view (in the sense of promoting the local crafts and know-how). The materiality of the walls, made of solid wood and of the roof, made of stone, determined the architectural expressiveness of the building. While all the wood was available in the valley and could also be processed there, the stone for the roof was produced in the neighbouring valley of Vals. The building is situated slightly turned out of the slope, facing with its main façade south towards the



water. With its long façade and its widely overhanging roof, it responds to the facing meadow slopes, creating a spatial centre around the lake. The functional separation of the cloakrooms and the restaurant over two floors allows a separate access directly from the outside. This two-sided access is a feature of the former stables, which were constructed according to the topography. The heart of the build-



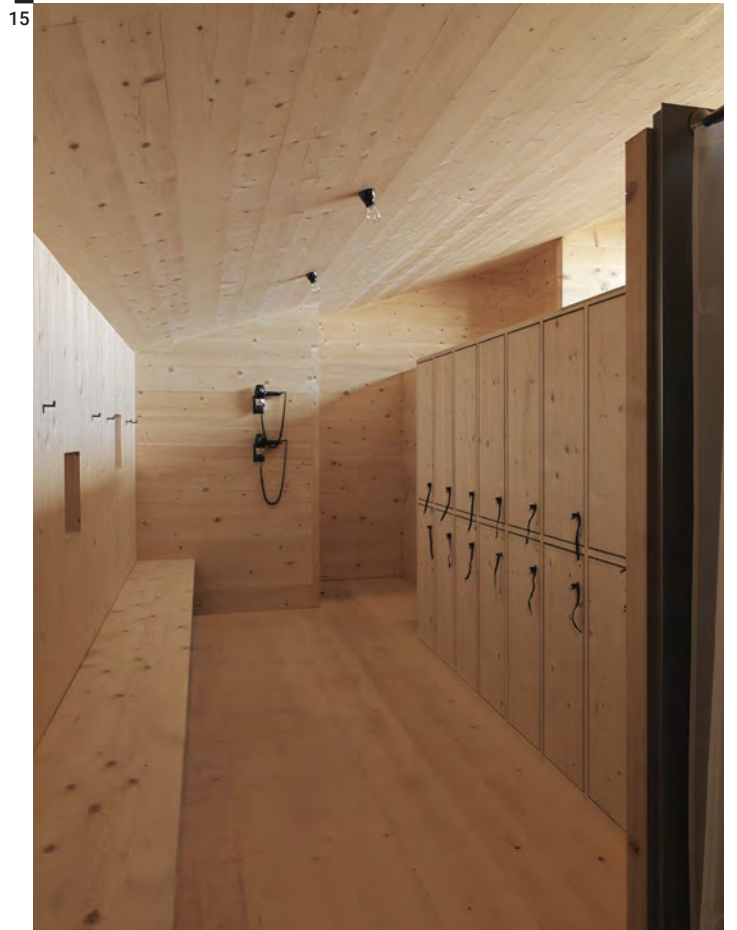


Fig. 12
Leisure
infrastructure in
Davos Munts,
siteplan.

Fig. 13
External view (photo
Julia Werfel).

Figs. 14-15
Internal views (photo
Lucia Degonda).

ing is a small restaurant – *Ustrietta* – on the ground floor. With its bare, raw construction walls, the room is reminiscent of the traditional *Stuben* at the far end of Val Lumnezia on the *Maiensäss* and in the temporary settlements.

The legacy of tradition

Until a few years ago, there were only earth burials on the Catholic cemetery of Lumbrein. On the grave, there was always an iron cross. The need for urn burials had arisen increasingly. This is because relatives are often no longer in the village and cannot take care of the grave. So, the community organized a small competition for the design of the urn graves. Instead of the traditional crosses we proposed shared gravestones with several inscriptions on them. We were aware that it was not self-evident that changing a centuries-old tradition of grave arrangement would be well and immediately accepted by the community. The gravestone should therefore convey a sense of community, trust and familiarity. The existence of few white stoves in the village seemed to suggest that there must exist a local source of marble. In the writings of the geologist De Quervin we found confirmation of the presence of a local marble. So, we set off for the high valley above



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Fig. 16
The vein of marble
above the village
of Lumbrein
(photo Capaul &
Blumenthal).

Fig. 17
Catholic cemetery
of Lumbrein
(photo Capaul &
Blumenthal).

Fig. 18
Catholic cemetery
of Lumbrein (photo
Laura Egger).

the village, where we came across a vein of marble with vertically layered stone slabs. The marble slabs we found were quite the size we needed. So, the question arose regarding to what extent we should change this natural form that geology had created. In the end, we decided not to change the shape at all, but only to clean the surface from the erosion layer. After a few years of hesitation, the stones were accepted by the population and the municipality allowed more stones to be flown down, to be used in further phases in the cemetery.

The legacy of nature

One of the last projects of our studio is the expansion of the *Chamanna* (hut) Cluozza. It was built in 1910 Switzerland's only national park, in the canton of Grisons. This was one of the first national parks in Europe and due to these strict rules, the Swiss National Park is the only park in the Alps that has been categorized as a strict nature reserve, the highest protection level. Inside the park, it is not allowed to leave marked trails. The *Chamanna* served as accommodation for both the park wardens and hiking guests offering 10 beds and 20 simple sleeping places in the hay. In the decades that followed the hut was repeatedly extended.



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The *Chamanna* Cluozza can only be reached on foot. The walking distance from Zernez is about two and a half hours. The refuge is open and managed from mid-June to mid-October. Materials and food are supplied by helicopter.

Next to the main building there are several out-buildings. The pavilion, the former stable for the mule, a toilet house, and a small washing facility. The hut is largely self-sufficient. Electricity is produced by its small water turbine, and it has its bio-



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Fig. 19
Chamanna Cluozza,
Zernez, model
(photo Capaul &
Blumenthal).

Figs. 20-21
External views
(photo Laura Egger).

logical sewage treatment plant. In 2012, a protective dam had to be built to prevent mudflows.

To improve the sleeping and working conditions for staff and guests, the Federal National Park Commission launched an architectural competition. The aim was to find a solution for separating the staff and guest areas and improve workflows. Our project extends the existing building ensemble of *Chamanna Cluozza* by a fifth outbuilding, that is the sleeping tower for the staff. The wooden tower is positioned on the hillside of the main building as a free-standing structure. The vertical proportion of the building and the decision not to use an internal staircase allow a minimum footprint of the building of 5 metres by 5 metres.

Following the steep terrain, the floors are each directly accessible from the outside. Two corner chambers – *cells* – are inscribed on each floor, which is turned towards every other floor. By moving the staff to the new sleeping tower, a second dormitory can be set up in the north wing of the main building. The guest capacity will remain the same at around 60 people. The main building will be renovated and have a new roof made of larch shingles. The converted *Chamanna Cluozza* will be opened to the public in mid-June 2022. ■

Fig. 22
Siteplan.



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Figs. 23-24
External views
(photo Laura Egger).



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