



**LANDSCAPE PERSPECTIVES**  
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## **Landscape Perspectives**

Unveiling the grandeur of the landscape.

*An experience as a sequence of pause and contemplation along a cultural trail.*

20 Credit Semester Project

*March - June 2023*

ETH Zurich

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## Chapter 1. Introduction

### 1. Topic and Project Introduction

This project is the culmination of a unique opportunity to work on a four-month project at ETH Zürich, under the guidance of Prof. Teresa Galí-Izard as Project Supervisor and Prof. Julia Campomaggi as Home University Consultant. As I had the freedom to choose the subject for this project, I decided to delve into my natural interest in small, wooden buildings nestled in nature. These structures have always captivated me with their architectural simplicity, human-scale size, and profound relationship with the vastness of the natural landscape. Moreover, the renowned ETH Zürich, known for its leadership in design and innovative thinking, provided an ideal setting for this exploration.

This journey, therefore, started with the aim of combining my passion for small wooden buildings in the setting of Switzerland, a country renowned for its stunning landscapes and rich architectural heritage. It was during my research that I came across an article by National Geographic titled "The history of the Alps' oldest hamlet surprises even locals,"<sup>1</sup> which unveiled forgotten history along an important medieval trade route in the region of Zermatt. Intrigued by the prospect of connecting landscape architecture with barns and other small wooden buildings in the heart of Switzerland, I found the perfect backdrop for this project.

To better understand the subject matter, I embarked on a comprehensive research journey focused on Kulturwege Zermatt and the significance of barns in this context. Additionally, I had the opportunity to experience the trail firsthand during a memorable field trip on a surprisingly sunny winter day. The trail not only offered insights into barns, history, and culture but also revealed the remarkable landscape qualities that surround them.

Seeking to expand my knowledge and gain a deeper understanding, I reached out to Mr. René-Michael Biner, the president of Verein Alts-Zermatt (Association of Old Zermatt), who has led the creation of these cultural trails. Through our interaction, I delved into the association's work, the significance of barns, and explored how this project could be shaped.

The following document represents a compilation and summary of my research, experiences, analysis, and resulting project over the course of four months at ETH Zürich.

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<sup>1</sup>Sarah Freeman, "The Alps' Oldest Hamlet Has a History That Surprises Even the Locals," *Travel*, November 14, 2022, <https://www.nationalgeographic.com/travel/article/new-hiking-trail-zermatt-swiss-alps>.

The research is organized chronologically, beginning with an exploration of barns in general, including topics such as farming in the Swiss Alps, the reasons behind scattered barns, and their unique designs and construction methods. Building upon this foundation, the research delves into the decay of old barns, examining why they have fallen into disrepair, their cultural and landscape relevance, and the importance of protecting select structures. A critical bridge is then established between the barns and the surrounding landscape through the introduction of *landscape thought*, which explores the reasons behind the landscape we see today. Then it is followed by the analysis of the Kulturwege Zermatt trails by Verein Alts-Zermatt, created with the goal to make the region's cultural and historical treasures accessible. Thus, the research encompasses both the architectural aspects of the barns and the broader context of the cultural trails within the landscape.

The first chapter concludes by presenting a Design Question, which serves as a direct response to the previous research, establishing the project's scope and broadly defining the approach. This section lays the foundation for the subsequent chapters and sets the stage for the project's intent and direction.

In the second chapter, case studies are undertaken to deepen the understanding of successful architectural projects in natural landscapes and gain valuable insights. These carefully selected projects contribute with significant knowledge and inform the development of the project.

The third and final chapter focuses on the design project itself. It is divided into three main parts: the analysis of the location, which involves an in-depth examination of the Kulturwege Zermatt trails, their characteristics, and potential interventions; the articulation of the project's intentions and approach; and the actual design proposal. The latter is further subdivided into sections that draw from extensive field trips to Zermatt and neighbouring trails and hamlets conducted over the four-month period. These sections encompass an analysis of the landscape's morphology and the predominant local materials, the conceptualization of the project through a six-stage process, and the ultimate development of a precise, clear, and coherent project proposal. The project proposal is further elaborated on three selected sites, including site locations, a sequential concept, site analysis, and the proposal itself.

In conclusion, this comprehensive project showcases a culmination of research, analysis, and design exploration within the topic of landscape architecture. It presents a rich tapestry of barns, cultural trails, and the surrounding Swiss landscape. The final chapter

encompasses a summary, acknowledgements, and reflections, summarizing the essence and significance of this project.

## 1.1. Barns

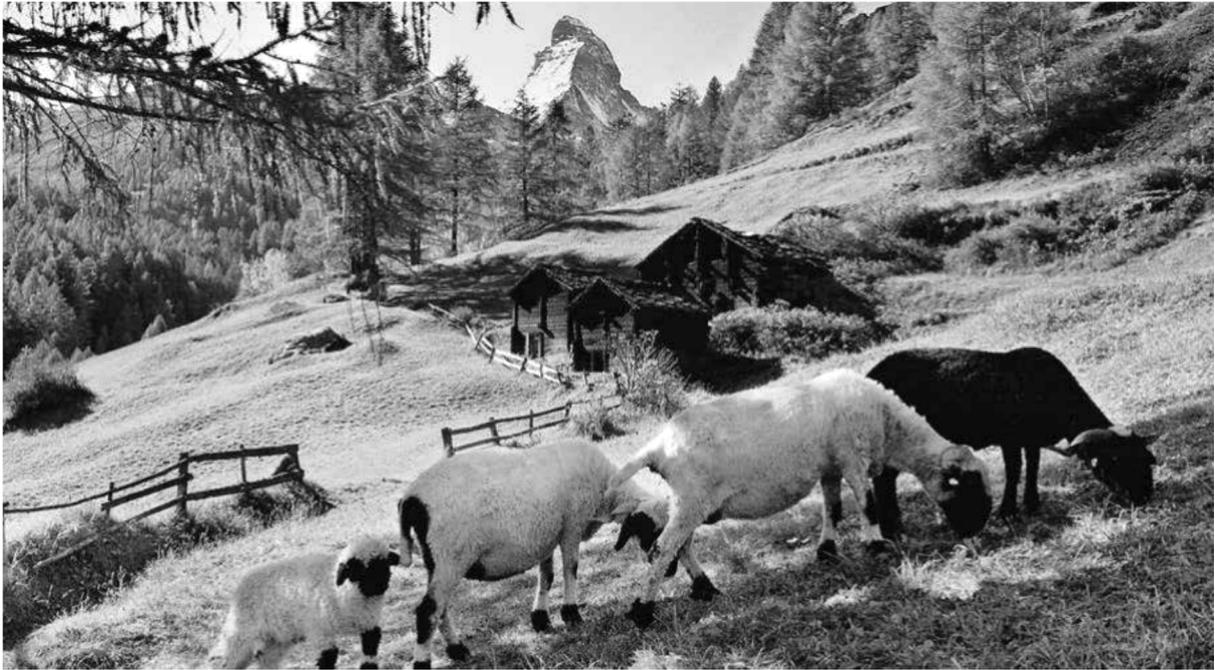


Fig. 1 Author unknown. *Zermatt Schafe* (Zermatt sheep). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

Farming in the Swiss Alps has long been intertwined with the essential role of barns. In the past, these structures played a vital role in supporting agricultural activities and sustaining mountain communities. The challenging alpine environment necessitated the design and construction of barns that could withstand harsh climates, protect valuable crops and livestock, and provide storage for winter provisions. These barns were not merely functional buildings, but symbols of resilience and ingenuity. They stood as testaments to the resourcefulness of the farming communities, their deep connection to the land, and their ability to adapt to the demands of the alpine landscape.

## Farming in the Swiss Alps

Traditional farming methods in the Swiss Alps were deeply connected with the rugged and majestic surroundings of the settlements. The cows and sheep that grazed there received essential nutrition from the alpine meadows' lush grass and vivid flowers. These high mountain pastures—from which the word "Alps" derives—were essential to sustaining life in mountain towns.

Farmers migrated seasonally in a cyclical rhythm throughout the year. They would bring their cattle to the alpine meadows in the summer and keep them there until the start of the fall season. The communities worked intensively during this period taking care of the requirements of the animals for milking, manufacturing cheese, and producing wool. The effective use of the resources at hand was at the centre of activity in these high-altitude areas.

Haymaking was a central aspect of the summer activities. The steep slopes and challenging terrain meant that the fields had to be mowed by hand, using traditional tools like scythes. The harvested hay, primarily consisting of rye but also including corn, was then dried in the sun, turned regularly to ensure even drying, and carefully stored in the barns. This labour-intensive process required meticulous coordination and hard work, as multiple cuttings were often necessary throughout the summer to ensure a sufficient supply of hay for the long winter months.<sup>2</sup>



Fig. 2



Fig. 3



Fig. 4

Fig. 2 Author unknown. *Täsch Korn 1929* (Täsch Grain). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1929. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

Fig. 3 Author unknown. *Zermatt Findeln Bergarbeit* (Zermatt Findeln mountain work). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

Fig. 4 Author unknown. *Täsch Kornspeicher 1959* (Täsch granary 1959). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1959. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

<sup>2</sup> Troy Haines, "Traditional Farming in the Swiss Alps - Alpine Hikers," Alpine Hikers, March 7, 2023, <https://alpinehikers.com/traditional-farming-in-the-swiss-alps-2/>.

The landscape itself played a significant role in shaping farming practices. The towering peaks, deep valleys, and cascading rivers presented both challenges and opportunities. The steep gradients required the construction of terraces and irrigation systems to optimise land use and support crop cultivation. Furthermore, the abundance of natural resources, such as wood and stone, influenced the architectural techniques and materials used in constructing barns and other types of buildings.

The close connection between the communities, the land, and the barns cultivated a strong sense of resilience, self-sufficiency, and reverence for nature. As the chapter delves deeper into the significance of barns, their design, and their role in Zermatt Valley, it becomes apparent that these structures were not only practical shelters for animals and storage spaces for crops but also symbolic representations of a way of life deeply intertwined with the alpine landscape.

## Multiple barns for a single farm



Fig. 5 Author unknown. Image reference: FB\_IMG\_1651297043426 "Family harvesting hay with barns in the background".  
Photograph. Sammlung Willisch Urs, Kulturweg Zermatt. Date unknown. [shorturl.at/eDFZ6](https://shorturl.at/eDFZ6)

In the challenging terrain of alpine farming, the construction of multiple small-sized barns distributed along the fields played a vital role in supporting agricultural activities and ensuring the well-being of both livestock and farmers. The dispersed placement of these barns was a direct response to the unique characteristics of the landscape. Factors such as accessibility, proximity to the fields, and drainage were taken into account to ensure optimal functionality and efficiency. The barns were strategically positioned to make the best use of the available land, facilitating the management of livestock and agricultural operations amidst the challenging terrain.

One of the primary functions of these scattered barns was to provide decentralized storage for hay and manure. The upper floors of these barns served as repositories for the harvested hay, which was essential for feeding the livestock during the winter months. By having multiple barns strategically positioned across the fields, farmers could conveniently store hay in close proximity to the specific areas where it was required. This decentralized storage approach greatly reduced the labour and effort involved in transporting hay from a

centralized location. In winter, if necessary, the hay could be efficiently transported to the farmhouse using sledges or other means.

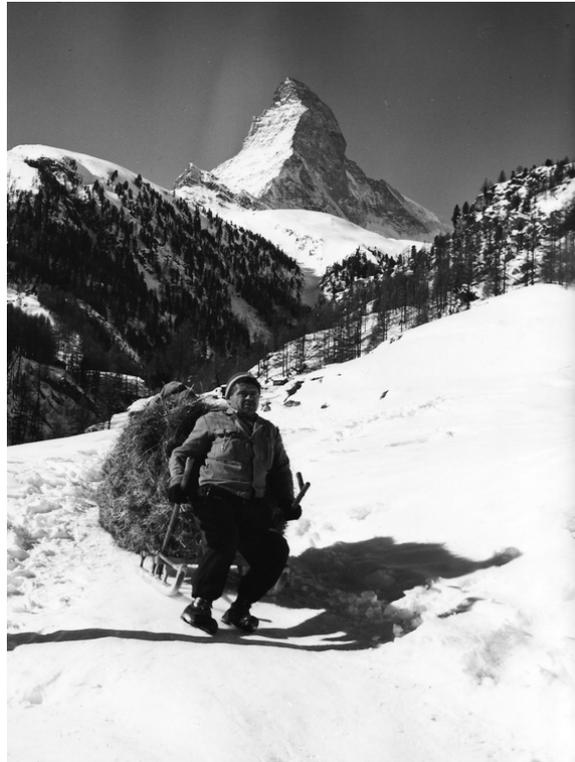


Fig. 6 Author unknown. *Zermatt Waldschlitten Winter (2)* (Zermatt forest sled winter). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/iksCM](https://shorturl.at/iksCM)

The lower floors of these barns were designed to house underground tanks for storing manure. This innovative arrangement allowed farmers to collect and store manure in the nearby fields where it would be utilized as fertiliser. By integrating manure storage into the barns, farmers eliminated the need for extensive transportation and made efficient use of the valuable nutrients generated by their livestock.

In addition to their storage functions, these spread-out barns served as temporary shelters for livestock during the summer months when sudden rainstorms and thunderstorms appeared in the region. These shelters provided refuge for the animals, protecting them from the elements and ensuring their well-being. This aspect was particularly crucial in the context of alpine farming, where the livestock spent a significant amount of time grazing in the fields.

The scattered barns along the alpine farming landscape embodied the interplay between agricultural practices.

## Design and construction methods

The design and construction of barns in the Zermatt Valley were heavily influenced by the local climate, available materials, and agricultural requirements. Moreover, the strategic placement of these barns on steep mountain gradients allowed them to be in close proximity to the surrounding alpine fields.

Shapes and techniques were carefully selected to suit the local climate, available materials, and agricultural needs. Wood and stone, as the main natural resources, played integral roles in the construction process.

On the one hand, larch wood, known for its resistance to flexion and versatility, was the primary material used for the main structural elements of the barns. The predominant construction techniques employed were the Strickbau (log construction) and post and beam construction. The Strickbau technique, featuring square section logs, was a common practice in the region, known to have been employed since Celtic times. Squared or rounded timber trunks were horizontally stacked on top of each other, with the ends of each log overlapping in the corners to provide structural integrity. The sun's exposure over time darkened the wood, giving it a chocolate-like hue, while the high resin content acted as a deterrent to rodents.



Fig. 7 Old vs new Strickbau. Nicolau Vilaró



Fig. 8 Barn as a stable (left) and barn as a granary (right). Nicolau Vilaró

On the other hand, adjacent quarries provided stones that were used to clad the pitched roofs. The overlapping placement of these stones ensured water resistance and protected the harvest inside. In addition, the substantial weight of the stones also contributed to the stability of the wooden structures, enabling them to withstand strong winds and challenging climatic conditions. Furthermore, to protect the wooden structures from moisture, barns were

elevated on stone bases or in some cases stilts, depending on their purpose and location. For example, most barns feature a stone base as a transition between the wooden walls and the ground. This not only protects and ensures the durability of the wood but also allows for the ground floor to be used as a stable for livestock. Another example are granaries which were elevated on stilts, topped with overhanging circular stones, providing protection against mice and dampness.

Inside the barns, the upper floors served as storage areas, with piles of harvested rye acting as substitute beds. In some cases, the upper level extended beyond the base of the building, known as *Üs-Schuss* in the local dialect, it created additional storage space while also serving as protection to the entrance area.<sup>3</sup> On non-stilted barns, the lower floors were used to house cattle, harnessing their heat during cold nights.

These barns exemplify the ingenious and harmonious integration of design, construction, and agricultural needs in the alpine landscape. The use of locally abundant materials, such as larch wood and stone, combined with techniques suited to the mountainous terrain, resulted in durable structures that could withstand the elements and serve their purposes. The meticulous attention to detail, from the choice of construction methods to the strategic placement of the barns, demonstrates the centuries-old profound understanding of the natural environment and the desire to perfect and optimise the agricultural practices of the region.



Fig. 9 *Stilted barns in the hamlet of Blatten, Zermatt.* Nicolau Vilaró

<sup>3</sup> "Bauweisen." Kulturwege Zermatt. <https://www.kulturwege-zermatt.ch/bauweisen/>.

## 1.2. Barns in decay

### Why have barns fallen into decay?



Fig. 10 Barn in decay next to the train, arriving in Zermatt. Nicolau Vilaró

Farming in the Swiss Alps and specifically in Zermatt has undergone significant changes in recent decades, leading to the decay and abandonment of many barns and agricultural structures. The industrialization and modernization of agriculture, particularly after World War II, have transformed the farming landscape. The introduction of motorization and mechanization in farming practices has favoured a shift from a dispersed farming infrastructure to a more centralized one. As a result, traditional barns and sheds that once served as storage for hay and shelter for animals are no longer used for their original purposes.

The decline in the number of agricultural workers has also contributed to the abandonment of barns in Switzerland and Zermatt. From 1955 to 1985, the number of agricultural workers fell by less than half.<sup>4</sup> Leading to a decrease in the active use and maintenance of these structures. With fewer individuals engaged in farming, the practical need for maintaining and preserving barns has greatly declined.

The complex administrative and legal framework surrounding these buildings further complicates their fate. Each canton and municipality in Switzerland has its own laws and regulations concerning barns and agricultural structures. In the case of the Valais canton, for example, the scattered and fragmented land ownership makes it challenging to undertake renovation or restoration projects. The inheritance law and the attachment of Valais

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<sup>4</sup> Brigitt Sigel, *Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem* (vdf Hochschulverlag AG, 1991), 9.

residents to their property rights create additional obstacles to the pooling of ownership shares or renovation efforts.

“8. The decay of the stables is due to inheritance law. Hardly any barn is in sole ownership. A pooling of ownership shares for each property so that one could be able to renovate is not practicable, since the Valais are very attached to their property/ownership share. The land ownership is also scattered in small parts (e.g. Grengols: 300 ha spread over 2850 plots, 350 owners, up to 100 people per plot or communities of heirs, some of which can no longer be found). The relevant provisions of Swiss inheritance law are not applied in practice. The distribution of ownership is enormous.”<sup>5</sup>



Fig. 11 Closed barns as photo subject in Oberdorf, Zermatt. Nicolau Vilaró

While some towns and municipalities, like Zermatt, have implemented special laws and systems to promote the preservation of certain farm buildings, the vast majority of barns in the region do not benefit from such measures. The regulations in Zermatt, which allow the municipality to subsidize the maintenance of select farm buildings, are primarily aimed at preserving cultural heritage and promoting tourism.

As a result, many barns in Zermatt remain unused and in a state of abandonment, as they do not meet the criteria for subsidization. René Biner (president of Zermatt's Cultural and Historical Society) argues that: "Owners have neglected the stadels (stilted grain barns) in the last 30 to 40 years,"... explaining that many no longer serve a practical use since very little rye is now harvested, and are therefore abandoned.<sup>6</sup>

<sup>5</sup> Sigel, *Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem*, 105.

<sup>6</sup> Sarah Freeman, "Stadels: The Age-Old Barns That Fed the Alps," *BBC Travel*, October 7, 2022, <https://www.bbc.com/travel/article/20221004-stadels-the-age-old-barns-that-fed-the-alps>.



Fig. 12

Fig. 12 *Barn in the centre of Zermatt covered with a plastic tarp.* Nicolau Vilaró



Fig. 13

Fig. 13 *The underside of the upper Valais largest reservoir (1853) is filled with wooden planks, fruit boxes, cans and a Panasonic DVD player.* Nicolau Vilaró



Fig. 14

Fig. 14 *Storage or trash?.* Nicolau Vilaró

The conversion of agricultural buildings into residential homes is generally prohibited by local laws, further contributing to the challenge of maintaining and repurposing these structures. Without a financial incentive to restore barns into new homes or alternative uses, their maintenance and preservation become increasingly difficult.

Despite the decay and abandonment of barns, some of them still serve limited purposes. For instance, some *gädis*, or two-storey stables, continue to provide shelter for regional Blacknose sheep during winter. However, the majority of barns, particularly those scattered across the landscape, remain unused and neglected.

These decaying barns, once integral to the agricultural economy and life of the villages, now stand as silent reminders of a bygone era. Their cultural and historical significance is increasingly recognized, and efforts are being made to raise awareness and find sustainable solutions for their preservation.

## Why is it a relevant topic?



Fig. 15 Author unknown. Image reference: FB\_IMG\_1582467448890 "5 Barns and the construction of a new building". Photograph. Sammlung Willisch Urs, Kulturweg Zermatt. Date unknown. [shorturl.at/BGN34](https://shorturl.at/BGN34)

The growth of tourism in mountain towns and villages in Switzerland over the past few decades has led to a surge in the popularity of these destinations as vacation spots, both in summer and winter. In addition, there has been significant development of apartments, hotels, resorts, and accompanying infrastructure. Consequently, this rapid expansion has resulted in a decrease in available land for construction, driving up prices and creating a sense of exclusivity in once remote and tranquil towns. As a result, together with other factors, there is a growing "awareness of the landscape as a precious heritage"<sup>7</sup>, sparking increased interest in nature tourism.

In parallel with the growth of this kind of tourism, there has been a widespread appreciation for old buildings, which possess their own unique identity and character, making them more appealing and intriguing than their modern counterparts. "They're also historical. They speak to us of another time, of particular events, of old crafts, and even of particular historical

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<sup>7</sup> Andreea Cutieru, "Architecture and Nature: A Framework for Building in Landscapes," *ArchDaily*, October 23, 2020, <https://www.archdaily.com/950043/architecture-and-nature-a-framework-for-building-in-landscapes>.

characters. Perhaps they're the product of a nostalgia for an idealised past."<sup>8</sup> "There is beauty in that which is stronger than we are".<sup>9</sup> As a consequence, abandoned and vacant barns and stables have become noticeable features in the Alpine landscape, not only captivating the imagination of visitors but also architects and real estate developers.



Fig. 16 Author unknown. Image reference: FB\_IMG\_1622700619953 "Growth in popularity of winter sports in Zermatt". Photograph. Sammlung Willisch Urs, Kulturweg Zermatt. Date unknown. [shorturl.at/eDFZ6](https://shorturl.at/eDFZ6)

The future of these iconic elements of the Swiss landscape raises a new and contentious issue in the Alpine cantons of the country. The question arises: should these buildings be demolished or repurposed? The answer to this question depends largely on two crucial factors: the location of the building and its intended use.

When considering the location of a building, the main factor is whether it is situated within the context of a village or in a more isolated setting. Depending on local laws, agricultural buildings located within a village are more likely to receive approval for conversion, as they are already part of the existing urban fabric. Additionally, such conversions facilitate

<sup>8</sup> Alan Davies, "Why Do We Love Old Buildings so Much?," *The Melbourne Urbanist*, July 1, 2011, <https://melbourneurbanist.com/2011/05/11/why-do-we-love-old-buildings-so-much/>.

<sup>9</sup> Alain De Botton, *The Architecture of Happiness* (London: Penguin, 2006), 205.

connections to the local grid for energy supply and sewage systems, promoting a centralized and harmonious development of the town.

However, when it comes to secluded barns and stables, renowned local architect Gion A. Caminada from the Alpine canton of Graubünden presents a contrasting perspective. Caminada argues that while nostalgic individuals may believe these old structures are an intrinsic part of the landscape, some of them did not exist 200 or 300 years ago, as these areas were covered by forests.<sup>10</sup> According to Caminada, if these buildings are no longer necessary for farmers, they should be demolished rather than preserved as monuments of the past. Espace Suisse, the Swiss Association for land-use planning, shares a similar viewpoint, stating that not every barn is worth protecting and that, depending on the circumstances in a particular location, unused or dilapidated buildings should be demolished.<sup>11</sup>

Furthermore, Caminada contends that converting abandoned barns into holiday homes changes the purpose of the building, ultimately destroying a cultural asset rather than preserving it. Brigitt Sigel's book "Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem" (vdf Zürich 1991) (Stables, barns, barns: the preservation of agricultural buildings as a legal problem) examines the legal requirements for the preservation of old agricultural buildings and demonstrates that there are no significant legal gaps in this regard. The main challenge lies in the lack of recognition and acceptance of these buildings as cultural monuments, leading to a lack of enforcement. Sigel argues that "Today's concept of a monument, which is geared towards all material witness to human activity, naturally also includes rural commercial buildings. They are not among the most important monuments because of their uniqueness, but because they represent our predominantly rural past, which is in danger of disappearing altogether."<sup>12</sup>

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<sup>10</sup> Sibilla Bondolfi, "What to Do with Abandoned Stables? A Thorny Issue in Switzerland," SWI swissinfo.ch, January 28, 2022, <https://shorturl.at/stxAP>.

<sup>11</sup> Bondolfi, "What to Do with Abandoned Stables? A Thorny Issue in Switzerland."

<sup>12</sup> Sigel, *Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem*, 10.



Fig. 17 Author unknown. *Zermatt Heuen 1925 (2)*, (Zermatt Hay). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1925. [shorturl.at/iksCM](https://shorturl.at/iksCM)

## Cultural and landscape relevance

Why are some worth protecting?

Despite their common state of abandonment, barns in Zermatt and Switzerland at large have acquired cultural and landscape significance over the centuries. They have become iconic representations of the Swiss landscape, instantly recognizable as "Swiss landmarks" to both foreigners and locals, even though very few of them are currently used. In the Zermatt area, some of these barns have stood for 400, 600, and even nearly 800 years, making them among the oldest barns in Europe (dating back to 1261). This historical longevity justifies their historical relevance in many instances.

The cultural importance of these barns is further exemplified by their immediately recognisable shape. For instance, Zermatt's Verein Alts Zermatt association drew inspiration from the distinct silhouette of these ancient grain barns to create a logo for the Kulturwege, a 3.7 km-long cultural trail that traverses the area's oldest barns and hamlets.



Fig. 18 Kulturwege Zermatt. Logo. Verein Alts Zermatt. <https://www.kulturwege-zermatt.ch/>

This demonstrates the recognition of these structures as significant elements of the region's heritage.

In the book "Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem," it is noted that in rural settlements, the traditional "monuments" comprise not only the church and vicarage but also the barns and stables. These structures are considered special architectural achievements that stand out from the everyday mass of farms and craftsmen's houses. They play a vital role in the region's economic foundation, without which other architectural accomplishments would not have been possible. The agricultural buildings reflect an economy shaped by topography, climate and a culture of self-sufficiency. The functional aspects, building materials, and local craftsmanship traditions have resulted in regionally distinctive building forms.<sup>13</sup>

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<sup>13</sup> Sigel, *Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem*, 10.

By acknowledging the significance of these barns, we not only appreciate their historical and contextual relevance but also recognize their role in shaping the surrounding buildings and landscapes. These structures serve as tangible reminders of the past, representing the economic and cultural foundations upon which the region was built. Preserving these historically relevant barns is not only about protecting individual structures but also a collective memory and cultural heritage that would otherwise be lost.



Fig. 19 Author unknown. *Near Zermatt* (Hamlet with recycled construction materials). Record name: PK\_020033 Photograph. ETH-Bibliothek Zürich, Bildarchiv. 1915 - 1925. <http://doi.org/10.3932/ethz-a-001434798>

Hence, the cultural and landscape relevance of old Swiss barns is deeply intertwined with the concept of reusing available resources—a practice deeply ingrained in the daily lives of the region's ancestors. In a time where resources were scarce, everything had a purpose and was used and reused until it could no longer serve its function. This approach extended to tools, clothes, fields, infrastructure, and even buildings. Rather than discarding an object, the mindset was to repair and put it back to work. This mentality of resourcefulness and "fixing it" stands in stark contrast to today's prevailing attitude of simply buying or building something new.

The practice of dismantling and relocating barns is not a recent phenomenon. Swiss farmers regularly disassembled their barns and moved them to safer locations to avoid avalanches and advancing glaciers during the Little Ice Age (14th-19th centuries). Furthermore, as

people started migrating from scattered mountain hamlets to larger villages in the valleys, these structures were dismantled, transported, and reerected elsewhere. This historic tradition is evident in the research conducted by Verein Alts Zermatt and dendrochronologist Martin Schmidhalter, who studied the construction dating of these barns. They discovered that different beams within a single barn corresponded to different time periods, often spanning hundreds of years, and represented different building types. Remains of demolished or destroyed barns were reused to construct or repair new structures, embodying a comprehensive approach to resource utilization.



Fig. 20 Author unknown. *Täsch Mittelstadel Lastträger Kornspeicher 1* (Granary Barn in Täsch, men carrying load carrier beam). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/iksCM](https://shorturl.at/iksCM)

The examples of architects and individuals who have embraced the reuse of these barns further demonstrate their cultural and practical significance. The Verein Alts Zermatt association's efforts in creating the Kulturwege, a cultural trail highlighting the area's barns and hamlets, showcase the importance of integrating these structures into the fabric of the region's cultural identity.

In conclusion, the cultural and landscape relevance of old Swiss barns is intimately tied to the concept of reusing resources. Their historical significance, the challenges posed by urban expansion, and the global imperative to adopt sustainable practices all highlight the need to preserve and repurpose local heritage. By embracing the legacy of these buildings

and integrating them thoughtfully into the evolving architectural landscape, we can ensure their continued relevance while simultaneously promoting sustainable development.

The following are some examples where barns and their structures have been reused to serve new purposes once again:

- **House from 1414/1513** (Zmutt, Zermatt)



Fig. 21 House from 1414/1513 in Zmutt. Nicolau Vilaró

Like many of the buildings in the Zermatt area, this is a building with a history of transformations, recycling and ongoing adjustments. The cellar walls date from 1410 and 1414, while the living space above is from 1513. At some point in time, this newer living space was brought from its original location to this building. This “is characteristic of rural construction in the Alps with limited resources. This includes, as the last stage so far, the conversion of the old residential building in the 1940s.”<sup>14</sup>

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<sup>14</sup> "2. Wohnhaus Von 1414/1513." Kulturwege Zermatt. Verein Alts-Zermatt, Accessed March 17, 2023. <https://www.kulturwege-zermatt.ch/weiler-zmutt/2-wohnhaus-1414/>.

- **Chinderwält playhouse** (Themed indoor playgrounds)

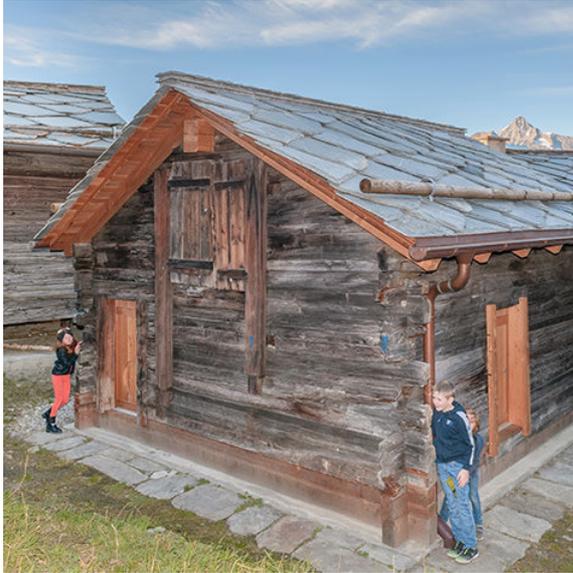


Fig. 22 Author unknown. *Image reference: fii1* (One of the foundation's barns). Photograph. Jotka.ch. Date unknown. <https://www.jotka.ch/showroom/fiischer-stelli-chinderwaelt/>



Fig. 23 Author unknown. *Image reference: fii2* (Inside one of the barns). Photograph. Jotka.ch. Date unknown. <https://www.jotka.ch/showroom/fiischer-stelli-chinderwaelt/>

Julian Vomsattel founded a non-profit organization called Chinderwält. As part of this project, and with the assistance of artists and architects five old unused barns in the village of Visperterminen have been remodelled into themed indoor playgrounds.

The project is now an important part of the village as it shows their old way of life and wine-growing tradition. What's more, air-drying meat is also a trait developed by the town's ancestors. This characteristic influenced the design and construction of the local stilted barns as "air-circulating gaps between the floor panels differentiates them from their grain-caching cousins."<sup>15</sup> On an interview with 1815.ch magazine Vomsattel said: "We have achieved our goal of preserving old buildings and reviving Herrenviertelplatz and offering a meeting place for parents and grandparents", also commenting how popular the playhouses have become as over 1000 children use them every year.<sup>16</sup>

<sup>15</sup> Freeman, "Stadels: The Age-Old Barns That Fed the Alps," October 7, 2022.

<sup>16</sup> Walter Bellwald, "Neues Spielhaus Für «Chinderwält»," *1815.Ch/WB Mobil*, n.d., <https://www.1815.ch/rhonezeitung/zeitung/region/neues-spielhaus-fuer-chinderwaelt/>.

- **Anako Lodge, Val d'Hérens**



Fig. 24 Nicolas Sedlatchek. *Anako lodge hotel complex in the Val d'Hérens*. Photograph. Anako Lodge. Date unknown. [anakolodge.ch](http://anakolodge.ch)



Fig. 25 Nicolas Sedlatchek. *Interior of the the mayen à joseph*. Photograph. Anako Lodge. Date unknown. [anakolodge.ch](http://anakolodge.ch)

Swiss architect Olivier Cheseaux avoided the demolition of six ancient grain barns (called *raccards* by the locals) in the village of Evolène. "I quickly realised that the laws did not allow me to transform the buildings because they were in an agricultural zone. So, I decided to save heritage from ruin by using the philosophy of our ancestors, that is, by moving them [to the pocket-sized village of La Forclaz, which is outside the agricultural zone]"<sup>17</sup>

- **Kalu-Gädi (holiday retreat)**



Fig. 26 Author unknown. *Klau-Gädi*. Photograph. Kalu-Gädi - Romantischer Stadel, airbnb. Date unknown. [www.airbnb.com/rooms/26478875](http://www.airbnb.com/rooms/26478875)



Fig. 27 Author unknown. *Klau-Gädi interior*. Photograph. Kalu-Gädi - Romantischer Stadel, airbnb. Date unknown. [www.airbnb.com/rooms/26478875](http://www.airbnb.com/rooms/26478875)

Nikola Kapp is the owner of another transported barn. In this case, it is a 150-year-old stilted barn originally from the town of Eisten. Each piece was numbered and transported by helicopter during a four-month rebuilding project in 2008 to its new place in Zermatt, 30 km away. "Its Heidi-esque interior has made two-storied Kalu Gädi an instant hit on Airbnb."<sup>18</sup>

<sup>17</sup> Freeman, "Stadels: The Age-Old Barns That Fed the Alps," October 7, 2022.

<sup>18</sup> Freeman, "Stadels: The Age-Old Barns That Fed the Alps," October 7, 2022.

### 1.3. The concept of “landscape thought”

When it comes to our culture of the landscape, as Augustin Berque discusses in his book *Thinking Through Landscape*, our attitude towards nature has changed over time. Human labour has separated us from nature. It has now become an imaginary construct other than ourselves that masks our true interactivity with the natural world. As a consequence, a rise in theoretical and literary appreciation of landscape has taken place at the cost of a successful and practical relationship with nature.

This is perhaps one of the reasons behind our rise in admiration for these old barns. Not only were they built carefully and strategically in the landscape, but also they were constructed on a connection to it through labour. Making use of knowledge of earlier generations involved in creating the landscape through their work. A concept called “landscape thought”. It is different to the theoretical and aesthetic attitude towards nature “landscape thinking”, both concepts introduced by A. Berque in his previously mentioned book.

In addition, another reason for the current cultural acclaim of such buildings is what the author describes as: “One of the problems of modernity - here the most important one - is the loss of the *profound sense of the landscape* that characterizes traditional societies”<sup>19</sup>. He argues that human communities used to create beautiful landscapes through their work. They generated places and environments where one felt comfortable. A contrary effect to today’s society’s creation of ugliness due to our practice, hence our efforts and measures to preserve these landscapes. This also testifies to the rise of tourism and urban sprawl in developed countries.

It could be argued that this increase in sightseeing around alpine towns has promoted the use of vernacular design language and therefore further establishing it as a cultural feature. This is evidenced by their shapes, materials and construction techniques being adopted as “swiss style” architectural design language in contexts where such building techniques contrast vernacular and even climatic factors. Recent developments in architecture and also agriculture have disrupted the unity of form and function.

Today’s cultural relevance of these buildings is not only because of the date they were built and the fact they have stood the test of time (historical relevance), but also because of what they mean. They imply our direct connection to the landscape as a means of living.

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<sup>19</sup> Augustin Berque, *Thinking Through Landscape* (Abingdon-on-Thames: Routledge, 2016), 46.

#### 1.4. Barns in the context of Zermatt

Ever since the first ascent to the famous Matterhorn (4.478m) in 1865 by Englishman Edward Whymper, Zermatt has been popularized as one of the most important mountaineering villages in the European continent.

In the Valais canton of Switzerland, the town of Zermatt (which translates to “by or on the meadow”<sup>20</sup>) was initially a bunch of hamlets spread around about 250 square kilometres. Nowadays, despite its evolution to a renowned ski and hiking destination, it still shows traces of its modest beginnings as a farming community. It is home to hundreds of centuries-old barns, stadels (stilted grain-storage barns), storehouses and wohnhouses which are deeply rooted in the local landscape. In addition, locally known as Gädis, two-storey stables are particular from this area and used to serve the crucial purpose of feeding self-sustaining mountain communities.

#### Agriculture and the growth of Zermatt

It was not until 1852 that the Hotel Mont Cervin was opened, and the so-called Golden Age of Alpinism began. The agricultural and livestock dependant lifestyle was still visible in the Zermatt area until the beginning of the 20th century. A time when an ingenious irrigation system was still being used. This consisted of a series of moats (deep ditches) called Wasserleiten (water pipes) that channelled water from the streams above and formed a network which often also formed plot boundaries.



Fig. 28 Author unknown. *Zermatt Wasserleite 1940*, (Zermatt Waterline 1940). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1940. [shorturl.at/iksCM](https://shorturl.at/iksCM)

<sup>20</sup> Freeman, “Stadels: The Age-Old Barns That Fed the Alps,” October 7, 2022.

It is until the 1950s that grain was still grown in this previously isolated village. “They [Zermattens] lived from grain and cows until the 1950s,”<sup>21</sup> (René Biner, the previously mentioned president of Zermatt's Cultural and Historical Association). This can be seen in photographs of that time where fields delimited by stones surround the background of the village. (Fig.28)

However, the rise of the industrialized area and thus the construction of the train network would soon put an end to this centuries-old way of life. It was in the year 1891 that the first guests arrived by train in the town of Zermatt after making their way through the 30 km-long deep valley, surrounded on both sides by four thousand meter high peaks (Fig.29). The previous and only connection to the outside world in this 400-resident village used to be a mule track.

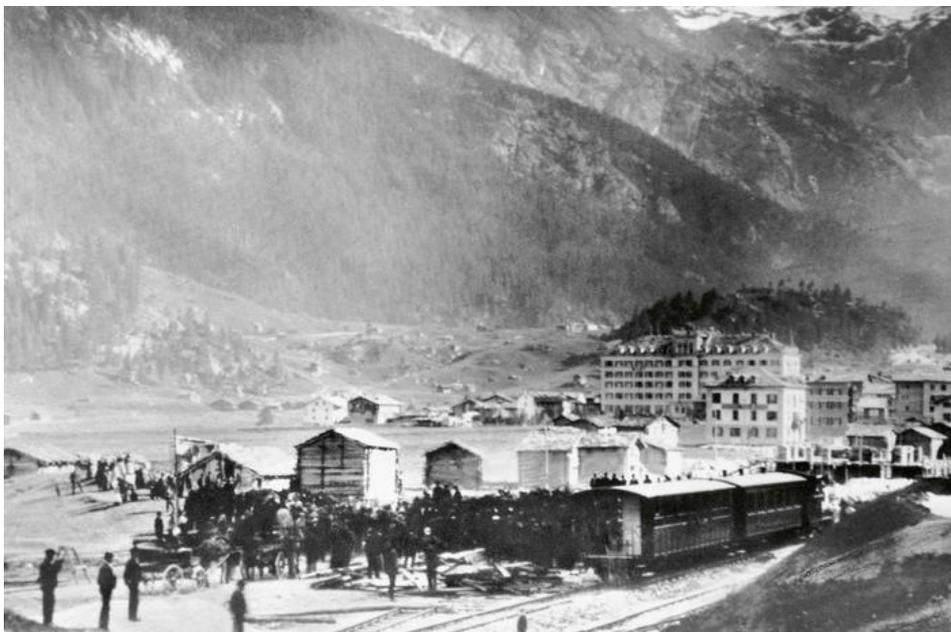


Fig. 29 Author unknown. *The First Train Arrives at the train station in Zermatt in July 1891.* 1891. Photograph. Zermatt.Ch. <https://www.zermatt.ch/en/History/1891-Dedication-Visp-Zermatt-railway-line>.

This link from the lowlands to the mountains started the slow but permanent decline of the farming industry; as grain and cereal were cheaper to buy down the valley than in the village. The landscape was about to change. The end of the Second World War and the rise of alpine tourism also contributed as a quarter of a million passengers were reached. One-million travellers arrived in 1952, and by 1973 it was almost 2 million. Nowadays, the Visp-Zermatt railway carries more than 3 million passengers annually.<sup>22</sup>

<sup>21</sup> Freeman, “The Alps’ Oldest Hamlet Has a History That Surprises Even the Locals.”

<sup>22</sup> “1891: Dedication Visp-Zermatt Railway Line | Zermatt, Switzerland,” Zermatt, Switzerland, n.d., <https://www.zermatt.ch/en/History/1891-Dedication-Visp-Zermatt-railway-line>

## Zermatt today

As context to the state of barns and old buildings in the town of Zermatt itself, some buildings remain well-preserved. This is especially visible in the “Hinterdorf” (back village) area. Here, more than 30 barns, stores, stables and old houses make up this area and they are all built in the traditional style of the upper Valais from 500 years ago (16th and 18th centuries). Where “A stroll through the narrow alleys feels like a trip back in time.”<sup>23</sup>



Fig. 30 *Stadels, Gädis and Wohnhauses in the Hinterdorf area of Zermatt.* Nicolau Vilaró

However, in the rest of the village the seemingly ever-growing urban fabric is taking over without any spatial or volumetric consideration towards the ancient barns whatsoever. New high-storey apartment buildings appear to grow like mushrooms to satisfy the demand for seasonal accommodation. The old barns are left untouched but are nevertheless overshadowed and dominated by the size and proximity of new constructions.

<sup>23</sup> “Viewpoint Old Part of the Village | Zermatt, Switzerland,” Zermatt, Switzerland, n.d., <https://www.zermatt.ch/en/Media/Attractions/Viewpoint-Old-part-of-the-village>.



Fig. 31 Barn in Oberdorfstrasse, Zermatt. Nicolau Vilaró



Fig. 32 Old vs new Oberdorfstrasse, Zermatt. Nicolau Vilaró



Fig. 33 Barns inside the courtyard created by new buildings.  
Nicolau Vilaró



Fig. 34 Barn lost in context. Nicolau Vilaró

While old Swiss barns are recognized as local landmarks, possessing cultural, historical, and landscape relevance, their integration and adaptation to meet the current needs of the town and community appear to be somewhat unresolved. Despite their significance, these buildings often face challenges in finding a clear role in the present context. As urban areas expand and requirements evolve, striking a balance between preserving their heritage and accommodating contemporary demands becomes a complex endeavour. It involves thoughtful consideration and creative solutions to ensure that these revered structures continue to contribute to the cultural fabric of the towns while addressing the functional requirements of the present day.

## Dating these old buildings

Understanding the historical relevance of old buildings often requires assigning accurate dates to their construction. By establishing the timeline of their origins, we gain insights into their rich heritage. This is precisely the task undertaken by Verein Alts Zermatt, a dedicated association focused on preserving the cultural legacy of the region. The following paragraphs are a synthesis exploring the process of dating old barns in the Zermatt area.

Although traces of human life during the Neolithic (5.000 - 2.000 BC) have been found in the area, it is not until the 8th and 9th centuries that a sedentary population can be assumed. In the course of the Alemanic conquest, numerous individual farms and hamlets settled along the mountain valleys. The middle ages brought with them changes in the population and emigration due to climatic variations.<sup>24</sup> Nevertheless, it is during this time that wooden barns were built, some of which are still standing today.

Dendrochronologist Martin Schmidhalter dedicated two decades to analyzing wood samples extracted from these barns and remote hamlets. Samples are drilled out of the corresponding wooden beams, extracting a complete set of rings that reveal the tree's growth over the years before it was felled. Through examination using microscopes and comparative data analysis, charts are created to unveil the birth and death of trees, enabling the precise dating of these structures.

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<sup>24</sup> "Gebäude und Zeit," Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/geb%C3%A4ude-und-zeit/>.

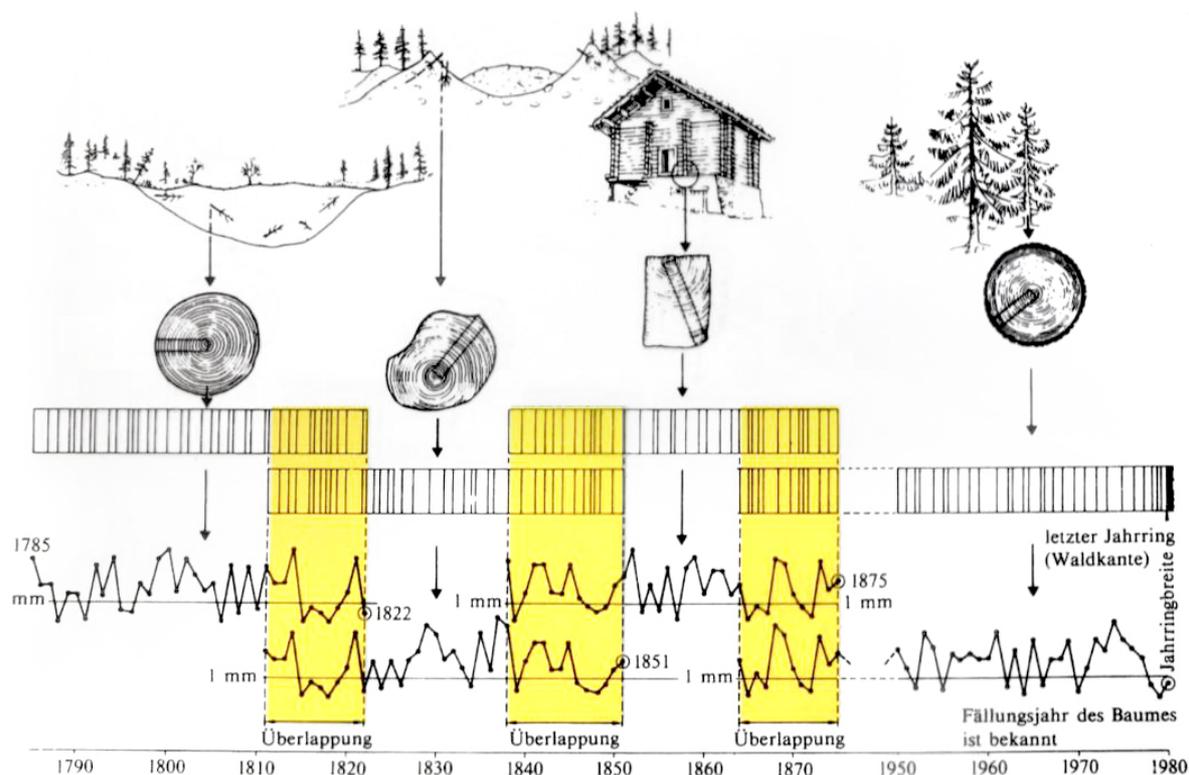


Fig. 35 Fritz Schweingruber, Werner Schoch. *Holz, Jahrringe und Weltgeschehen (Wood, annual rings and world events)* (Thanks to the overlapping of annual rings, one always comes further back in time). Diagram. Dietikon 1992. <https://www.kulturwege-zermatt.ch/dendrochronologie/>

Schmidhalter's first outstanding discovery was in 2019, and it revealed that the oldest barn in Europe (Herbrig Stadel) had been overlooking Zermatt on a nearby hill since 1261. Another remarkable finding is that Zmutt, a hamlet near Zermatt, is the Alps' oldest hamlet. It was previously thought to have been Münster, in another valley of the Valais.<sup>25</sup>

The discoveries made by Martin Schmidhalter and Verein Alts Zermatt testify to the remarkable heritage hidden within the wooden barns of the Zermatt region. Uncovering the oldest barn in Europe and reevaluating the age of significant hamlets like Zmutt offer a glimpse into the enduring history of these structures. Such findings not only deepen our understanding of the region's past but also emphasize the importance of preserving and celebrating these architectural treasures. In the following chapters, we will explore ongoing efforts to protect and highlight these old barns in the evolving cultural landscape of Zermatt.

<sup>25</sup> Freeman, "The Alps' Oldest Hamlet Has a History That Surprises Even the Locals."

## 1.5. Kulturwege Zermatt

Before any means of transport had arrived (or were even invented) in Zermatt, trails by foot or mule were the infrastructure and means of transport available. Their local origins range from connections between different barns, hamlets and towns to different villages, valleys and municipalities. These trails established passages through the high mountain passes that fostered trade between cantons and created routes like the Transalpine Salt Trade Route. "Before the completion of the Gotthard railway tunnel through the Alps in the 1880s, north-south trade was conducted by men called sumpters, who for centuries crossed alpine passes, braving the elements, banditry, extortionate tolls and disease."<sup>26</sup>

Zmutt, a small hamlet set deeper and higher in the valley than Zermatt was a key stop in multiple trade routes of the area. This is because it sits at the foot of three mountain passes. From Zmutt to Sion through the Col d'Hérens over to the Ering Valley to the west. To the south/southwest, the Col de Valpelline and the Theodul Pass lead over to the Aosta Valley and from there down to the Po Valley. Hence, before embarking on such journeys a stop in Zmutt was made to feed and rest overnight. This meant it remained active year-round to host travellers and the transport of goods over the passes.

However, it was a series of factors that provoked a major change for the hamlet. Though it mostly can be attributed to three factors. The first one was the change in climate, the second one was the growth of villages due to the tendency towards social mergers as a concentration process in the settlement of the landscape. And finally, the third one would be the decline of the mountain pass traffic, that in the course of the 19th century led to Zmutt being given up as a year-round inhabited village and from then on being only a temporarily frequented settlement.<sup>27</sup> Leaving behind abandoned barns filled with historical relevance not only for the people but also for the local landscape as nearby fields were no longer cultivated.

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<sup>26</sup> Dale Bechtel, "Old Alpine Trading Route Revived," *SWI Swissinfo.Ch*, September 29, 2017, <https://www.swissinfo.ch/eng/old-alpine-trading-route-revived/995202>.

<sup>27</sup> "15. Fazit," Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>.

## Cultural Trails and how they relate to their place and history

More recently, in 2019 a new cultural trail to the hamlet was opened to preserve it and make it visible together with a series of 14 stations (stops) along the way. The task was carried out by the local Verein Alts-Zermatt (Association of Old Zermatt), an association created with the goal of “making Zermatt's historical treasures accessible to the population, schools and guests”<sup>28</sup>. They share historical photos and information about Zermatt, the Matterhorn, the life, buildings, culture and traditions of previous generations.

This new Kulturwege (cultural trail) from Zermatt to the hamlet of Zmutt is one of four paths planned by the association. It was designed to highlight centuries-old wooden barns that were once the driving force that sustained the local agrarian way of life. Once the hamlet of Zmutt is reached, A further in-depth tour called Wieler Zmutt informs visitors about its 14th to 17th-century *stadels*, *gädis* and *wohnhauses*.

The association states on their Kulturwege Zermatt website that: “In the future, other cultural trails will also make the other hamlets and their valuable buildings known to the public and thus make a valuable contribution to an aspect of Zermatt and Valais history that has so far been little explored.”<sup>29</sup>

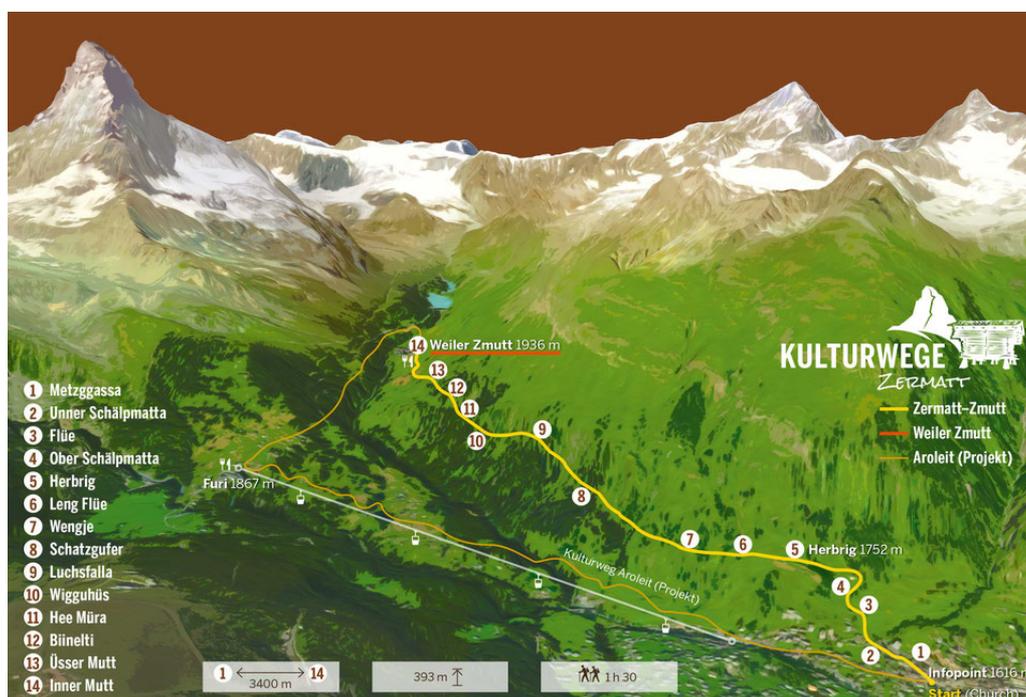


Fig. 36 Kulturwege Zermatt trail map, 2019. Kulturwege Zermatt. <https://www.kulturwege-zermatt.ch/>

<sup>28</sup> “Historisches & kulturelle Schätze von Zermatt,” Verein Alts-Zermatt, <https://www.alts-zermatt.ch/>.

<sup>29</sup> “Gebäude und Zeit,” Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/geb%C3%A4ude-und-zeit/>.

The future trails will include Kulturweg Aroleit (2023) (drawn in the map above in orange), Kulturweg Findeln (2025) and Kulturweg Dorf Zermatt (2027). Together, they will stretch about 20 kilometres and unite many largely uninhabited hamlets made up of ancient sun-burned barns that were used for hay and grain storage, air-drying meat, protecting cattle from severe winters and housing farmers.



Fig. 37 Hamlet of Zum See, Kulturwege Aroleit. Nicolau Vilaró

The villages in this area were once a key stop for transalpine trading routes. However, nowadays there are hardly any written records that register life here in the Late Middle Ages (roughly A.D. 1.300-1.500). Nevertheless, the Verein Alts-Zermatt is working to fill in the gaps by using science and generations of local knowledge.

## 1. Kulturweg "Zermatt-Zmutt" 2019

Ascending nearly 400 metres along 3.4 kilometres, the first marked trail connects the starting town of Zermatt with the remote hamlet of Zmutt, where it finishes. There are 14 “stations” (stops at key points) along the trail where visitors can learn about specific sights through information plaques. These include barns built from reclaimed beams and windows from residential buildings during medieval times, stone piles as remains of cattle pens, a lynx trap and many more.<sup>30</sup>



Fig. 38 *The largest reservoir in the Upper Valais, 1853.* Nicolau Vilaró

### 1. Metzggassa - Der grösste Speicher im Oberwallis (1853)

*The largest reservoir in Upper Valais (1853)*

It is located in the center of Zermatt. The wooden part of the building was used to store food and other belongings. This section is raised on 14 stilts with flat stone slabs to prevent mice from entering. This also provides ventilation and thus avoids moisture. The lower brick part is divided into stables for small livestock.



Fig. 39 *Storehouses around 1880.* Nicolau Vilaró

### 2. Unner Schälpmatta - Speicherdorf um 1880

*Storehouses around 1880*

A group of similar granaries were built near the residential buildings. They all shared the same construction typology of wooden beams joined in the corners and raised on stilts to protect their food from mice and humidity. Each owner has their own lockable door to their own compartment.

<sup>30</sup> Freeman, “The Alps’ Oldest Hamlet Has a History That Surprises Even the Locals.”



Fig. 40 *Meadows, fields, watering system.*  
Nicolau Vilaró

### 3. Flüe - Wiesen, Äcker, Wasserleiten *Meadows, fields, watering system*

The first view of the rural landscape. These fields sit directly under the mountain rock face and were delimited using dry stone walls. Cereals (mostly rye) and potatoes were planted here. The care of these meadows required an extensive irrigation system using water channels which often formed the plot boundaries. The barns were located away from avalanche paths. Pastures were divided into many small plots and when the feed in one was gone, the animals were moved to the next barn.



Fig. 41 *Stone trail "Bikki".* Nicolau Vilaró

### 4. Ober Schälpmatta - Steinerne Wegpartie "Bikki" *Stone trail "Bikki"*

Continuing along the trail, we find many parts of it paved with natural stones. Some of these are embedded in the ground to protect the path from erosion and avoid slipping during rainy days as cattle were walking. In the local Zermatt dialect, these paths are called "en Bikki", and the path itself is called "gibikkinutta".

Even during Roman times, this type of path was used in the Alps, they were built from nearby quarries on the mountain sides.



### 5. Herbrig - Ältester Stadel Europas (1261) *Oldest barn in Europe (1261)*

Herbrig is home to barns from the 13th and 14th centuries. Its main interest is a barn from 1261, the oldest one in Europe. These are grain barns that

Fig. 42 *Oldest barn in Europe (1261).* Nicolau Vilaró



Fig. 43 *Barn build using recycled materials..* Nicolau Vilaró



Fig. 44 *Apple tree next to the trai.* Nicolau Vilaró



Fig. 45 *Animal pen built with dry stone walls.* Nicolau Vilaró

were only used to store and dry grain sheaves that farmers collected from the arable terraces above the meadowland.

#### **6. Leng Flüe - Recycling anno dazumal** *Recycling in the old days*

This is a barn built with remains from a demolished house. Reusing wooden beams to build the walls as lumber was reused and not just thrown away.

#### **7. Im Wengje - Klimawandel und Apfelbaum auf 1750m**

##### *Climate change and apple tree at 1750m*

This area was used for former agriculture as seen from the remains of many stone walls. Nowadays, global warming during the last 60 years has allowed an apple tree to grow at an altitude of 1750m.

#### **8. Schatzgufer - Pferch "Färich"**

##### *Pen "Farich"*

Here, cattle were kept at night inside the remains of these stone walls. These are not ruins from a previous house as there are no foundations.



Fig. 46 Stone lynx trap. Nicolau Vilaró

## 9. Luchsfalla - Luchsfalle

### *Lynx Trap*

This is one of two remaining lynx traps in the Zermatt area. In the past, everything that harmed livestock and agriculture was hunted. Nowadays, there are very few left of them in the Valais canton.



Fig. 47 Barn built in 1335. Nicolau Vilaró

## 10. Wigguhüs - Stadel erbaut 1335, Stallscheune erbaut 1422

### *Barn built in 1335, stable barn built in 1422*

Standing on high stilts and stone slabs, this is one of the most beautiful barns in Zermatt, mainly to its location and views of the famous Matterhorn. This one was used for grain storage. Next to it (in this picture it's behind) there is a stable barn with hay storage on the upper floor and cattle below. There are also remains of the foundation of a third building.



Fig. 48 Dry stone walls built with stones from the fields. Nicolau Vilaró

## 11. Hee Müra - Überall Steine....

### *Stones everywhere...*

Continuing on the path, one can see piles of stones lying in the meadows. Here they were deposited by farmers during spring time. The path sides were walled with the largest stones, which served to demarcate the pastureland.



Fig. 49 *Glacial grind*. Nicolau Vilaró

## 12. Biinelti - Gletscherschliff und Bikki

### *Glacial grind and trail*

Zermatt used to be covered by a glacier during the ice age and even up to approximately 2.600m above sea level.

In this part of the trail, it is calculated to have been around 700 meters thick and it used to rest on this ridge (shown by the longitudinal cuts on the rock that indicate the flow of the glacier).

The “Bikki” is on the right side of this glacial grinding testimony.



Fig. 50 *Inderbinen residency 1551*. Nicolau Vilaró

## 13. Üsser Mutt - Wohnhaus Inderbinen erbaut 1551

### *Inderbinen residency 1551*

This house is an example of the past nomadic way of life of the mountain people. The famous Ulrich Inderbinen (1900-2004) (mountain guide), an icon of Zermatt, used to live here during his childhood from early summer until after the New Year. It still belongs to the Inderbinen family.



Fig. 51 *The Hamlet of Zmutt*. Nicolau Vilaró

## 14. Weiler Zmutt - Der Weiler Zmutt

### *The Hamlet of Zmutt*

The 14th and last station of this first trail is the old hamlet of Zmutt. It is deeply rooted in its surroundings and filled with history. This is why the association Verein Alts Zermatt decided to dedicate a specific cultural trail around the village’s barns and stables.

Information about the different stations along the trail can be found on the Kulturwege Zermatt website.<sup>31</sup>

<sup>31</sup> “Kulturweg Zermatt-Zmutt,” Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/weg-zermatt-zmutt/>.

## 2. Kulturweg "Weiler Zmutt" 2019

At the end of the trail, hikers reach the hamlet of Zmutt, at an altitude of 1930m it is Zermatt's most original settlement and one of the oldest known hamlets in Switzerland and in the Alps. Here, we get a chance to learn about its buildings in more depth thanks to detailed information plaques added by the association. These, reveal key information about their purposes, uses and especially construction dates (from 1300 to 1500-1600).



Fig. 52 Ernst Brunner. *Image reference: SGV-12N-01768.* (Up until the 1950s there were still extensive grain fields above the hamlet of Mutt (Zmutt)). 1938. Photograph. Swiss Society for Folklore, Basel.

This largely unchanged group of buildings shows how people lived here centuries ago. An open fire burned in the kitchen, and water had to be fetched with buckets from the well knowing that during winter nights, even keeping it indoors, it would get frozen. A small soapstone or fieldstone stove heated only one room, the living room. Cattle like sheep and goats had to be herded daily and kept in the small stables at night. Grain and rye were stored in barns together with bread and dried meat among other food.

One of many interesting and puzzling facts about the hamlet is the low quantity of residential buildings, just 6 (14%). Documents from the 1400s mention 54 names but it does not mention any boundaries between quarters. Assuming an average household of 3 to 4 people, during the late medieval emigration from Zermatt, it is said by historians that "the area would have been inhabited by around 150 to 200 people". Therefore, more than 6

residential buildings would have existed in Zmutt. Nevertheless, traces or remains of such buildings are nowhere to be found around or within the settlement.

What is said to have happened to Zmutt is shown in other abandoned villages in the Valais. “If permanently inhabited places are abandoned, farm buildings are often built instead of residential buildings, i.e. stable barns instead of houses. This also explains the above-average number of barns that characterize the image of Zmutt today. Secondly, the houses were dismantled and re-erected in a new location. This is what happened after avalanches, for example, during the Little Ice Age, when the climate worsened and made it difficult, if not impossible, to survive in the high-lying settlements.”<sup>32</sup>

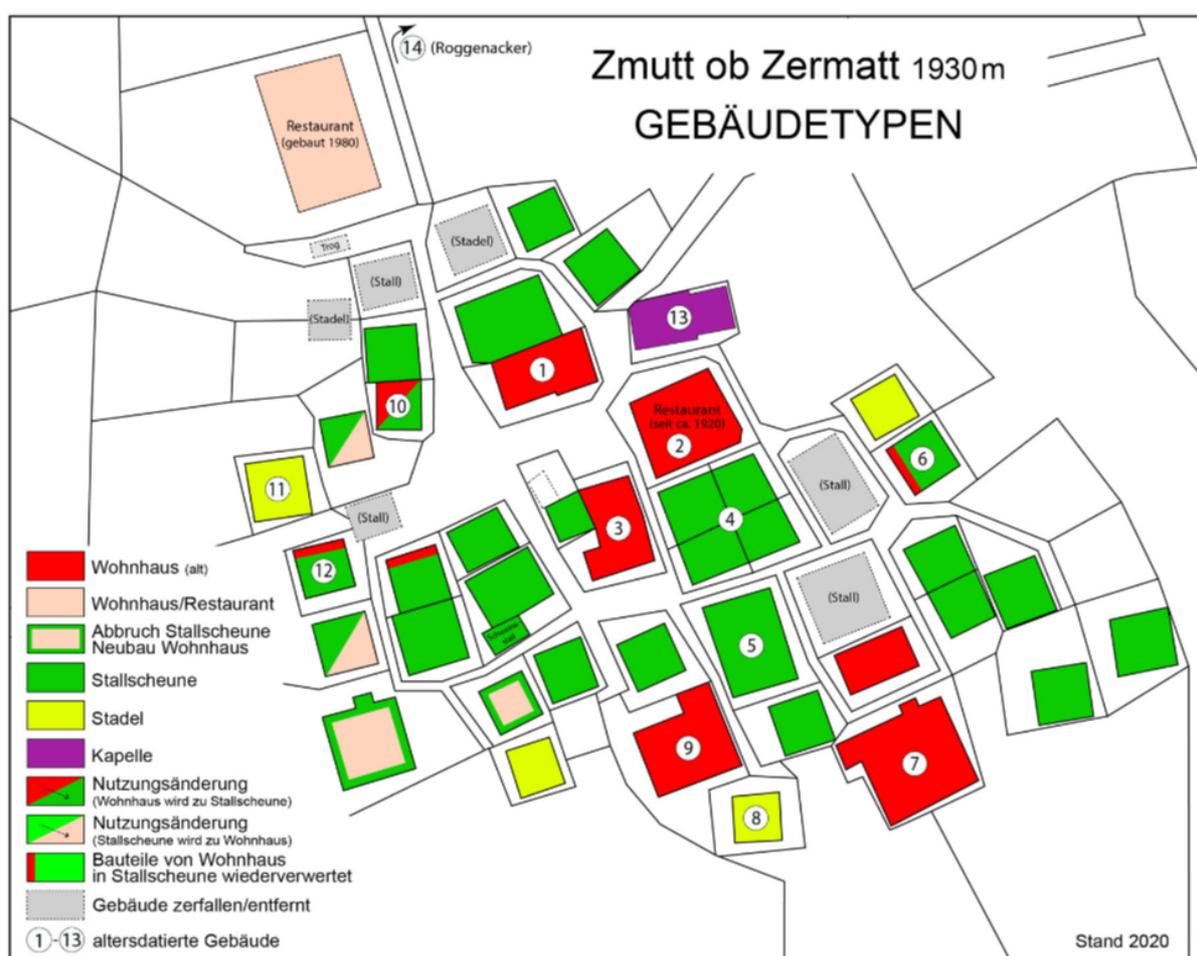


Fig. 53 Photo: Viktor Perren, Klaus Julen, Werner Bellwald. Graphics: Uwe Börst. *Today's building stock in Zmutt, dotted buildings have been removed.* 2020. Map. <https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>

<sup>32</sup> “15. Fazit,” Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>.

| Graphic Legend translation  | Zmutt above Zermatt 1930m<br>BUILDING TYPES            |
|---|--|
|  | House (old)  |
|  | Residence/Restaurant                                   |
|  | Demolition of stable barn, new residential building    |
|  | Stable barn  |
|  | Barn   |
|  | Chapel   |
|  | Change of use (residential house becomes barn)         |
|  | Change of use (stable barn becomes a dwelling house)   |
|  | Components of a dwelling house recycled in stable barn |
|  | Buildings decayed/removed                              |
|  | Age dated buildings                                    |

The concentration process of people moving to larger villages down in the valley changed the Valais settlement landscape permanently. Large villages where social life was concentrated took the place of hamlets and individual farms that shaped the image of a scattered settlement landscape. As schools and parish halls were built, people moved from the dispersed hamlets to the main villages while often taking their houses with them.<sup>33</sup>



Fig. 54 Author unknown. *Image from 1930.* (Trail to the hamlet of Zmutt, from the bottom right to the top left). Federal Office of Topography. Date unknown. swisstopo

<sup>33</sup> "15. Fazit," Kulturwege Zermatt, n.d., <https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>.

### 3. Kulturweg "Aroleyt" Project 2023

The new Kulturweg is to be inaugurated this summer (2023). It will continue from Zmutt across the river and along the other side of the valley. At a length of nearly 5 kilometres long, it will descend through Zermatt's origins, a collective of four hamlets known as Aroleyt: Furi, Fleschen, Zum See and Blatten. It will then continue along the valley to finish in Zermatt, where the previous trail started.<sup>34</sup>

Since Verein Alts-Zermatt's website at the moment did not contain information about this path, I contacted Mr. René-Michael Biner, the president, to learn more about it. Therefore I had the privilege of meeting Mr. Biner in the hamlet of Furi. He kindly shared information about the association's goals, the construction of barns, ongoing maintenance projects, and upcoming cultural paths throughout our talk. What's more, he accompanied me to visit all the future stations along the trail, which is set to be inaugurated this year.



Fig. 55 Future station of this year's Aroleyt Kulturwege. Nicolau Vilaró



Fig. 56 Traces of the dendrochronology test. Nicolau Vilaró



Fig. 57 Roofs in good conditions last hundreds of years. Nicolau Vilaró

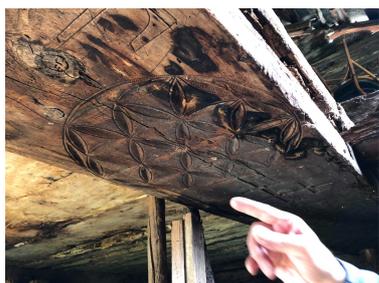


Fig. 58 Beam decorated with engravings, 1400s. Nicolau Vilaró



Fig. 59 Some buildings were built and rebuilt over time. Nicolau Vilaró



Fig. 60 Palimpsest of window sizes over the centuries. Nicolau Vilaró

<sup>34</sup> Freeman, "The Alps' Oldest Hamlet Has a History That Surprises Even the Locals."

## Furi



Fig. 61 House and stables in Furi. Nicolau Vilaró

Located at 1867 m above sea level, Furi has been connected to Zermatt by a cable car since the 1950s. From there, the cable car continues to Trockener Steg and two gondola lifts to Riffelberg and Schwarzsee. This makes it the most significant junction in the entire Zermatt ski area.

When the Aroleyt Cultural Trail opens, the area around Furi will contain 4 stations. From the oldest buildings in this hamlet to soapstone processing sites and memories of advancing glaciers and disappearing barns.

## Fleschen



Fig. 62 Medieval carving on a beam inside a barn in Fleschen. Nicolau Vilaró

Fleschen is the smallest gathering of barns in this part of the trail.

There will be 2 stations here. One will highlight an old house next to the trail, with a patchwork of windows that grew in size over the centuries. Traces can still be seen in the facade.

The second station is split into 2 separate buildings, both distant from the trail but nevertheless from the 15th and 17th centuries.

## Zum See



Fig. 63 Hamlet of Zum See. Nicolau Vilaró

The path that leads from Zermatt to the hamlet of Zum See used to be a mule track. In the past, it connected Switzerland with Italy through the Theodul Pass. According to the inventory of historical traffic routes in Switzerland (IVS) it is of national importance.

In one of the earliest records of the hamlet, it is mentioned in a contract from 1540. “Although the place is called “Zum See”, there was never a lake here. In the local language, “Zem See” has two different meanings. On the one hand, it denotes standing water, but also in general a hamlet with shelter for people and cattle”.<sup>35</sup>



Fig. 64 Barn for keeping hay (one door). Nicolau Vilaró



Fig. 65 Store house for keeping food such as dried meat (Usually four doors, one section individually accessible per family). Nicolau Vilaró

<sup>35</sup> “Weiler Zum See | Zermatt, Schweiz,” Zermatt, Schweiz, n.d. <https://www.zermatt.ch/Media/Attraktionen/Weiler-Zum-See>.

## Blatten



Fig. 66 Houses and barns in Blatten. Nicolau Vilaró

This hamlet used to be where cattle grazed during summer in its mountain pastures. The farmers used to live as temporary residents in the houses and work in the barns and storage barns.

Cattle were brought here in early summer and milk was either made into cheese or carried down to the village every day. On Sunday mass was attended in the chapel.

Nowadays, Blatten is a popular excursion destination as its mountain restaurants are located directly on hiking trails and ski slopes.<sup>36</sup>

### 4. Kulturweg "Findeln" Project 2025

Findeln is a group of hamlets located on south-facing mountain slopes above the town of Zermatt. The two main ones are Eggen at an altitude of 2177m and Ze Gassen just above at 2,051m.

Here, multiple families lived and worked in these widely scattered barns and houses. They grew grain and their cows grazed on the pastures. Rye was still grown here until the end of the Second World War.

Nowadays, some barns are used as restaurants which are well known for their high-quality mountain gastronomy, both in summer and winter. Others are used as holiday apartments.<sup>37</sup>

### 5. Kulturweg "Dorf Zermatt" Project 2027

In the area called "Hinterdorf" (back village) there are more than 30 barns, stores, stables and old houses. They are all built in the traditional style of the upper Valais from 500 years ago (16th and 18th centuries).

<sup>36</sup> "Weiler Blatten | Zermatt, Schweiz," Zermatt, Schweiz, n.d., <https://www.zermatt.ch/Media/Attraktionen/Weiler-Blatten>.

<sup>37</sup> "Weiler Findeln | Zermatt, Schweiz," Zermatt, Schweiz, n.d., <https://www.zermatt.ch/Media/Attraktionen/Weiler-Findeln>.

## 2. Design question

The Kulturwege Zermatt, or Cultural Trails of Zermatt, hold immense significance in providing a unique and enriching experience for visitors exploring the stunning landscapes of the Swiss Alps. These trails go beyond the traditional concept of hiking from one point to another. They provide the opportunity to learn about the rich cultural and historical heritage, amongst the natural beauty of the region. The carefully curated trails, offer a harmonious blend of history, culture in a breathtaking scenery, making them the perfect setting to incorporate a landscape architecture experience.

The centuries-old barns of the region have shaped the landscape around them. While embarking on our journey along the cultural trail from the town of Zermatt to the hamlet of Zmutt, we get chances to pause and take the time to contemplate the outstanding perspectives and scenery as it becomes an essential element of the journey. The landscape architecture project will work around these perspectives on the cultural landscape shaped by the barns and agricultural buildings. These carefully planned stops provide an opportunity for hikers to connect with their surroundings on a deeper level, allowing them to appreciate the grandeur of the landscapes and absorb the cultural context. Incorporating landscape architecture into these designated pause points amplifies the experience, enhancing the connection between visitors and the environment they find themselves in, from dense forests to open fields scattered by ancient barns.

By creating specific places to pause and contemplate the scenery along the cultural trails, landscape architecture adds a layer of intentionality and design that not only complements the cultural trail but also reveals the natural beauty of the surroundings. These thoughtfully designed interventions indicate to us our surrounding beauty and may even introduce the next phase of the trail and cultural stations while harmonizing with the environment. Landscape architecture fosters a sense of tranquility and purpose of the journey itself, rather than the destination. It also encourages reflection, allowing hikers to fully immerse themselves in the experience and forge a lasting connection with the Kulturwege of Zermatt.



Fig. 67 View of the Matterhorn from Herbrig. Nicolau Vilaró

Can the landscape, as an experience of contemplation, be incorporated alongside the Cultural Trails?

(With the goal of tailoring an experience that fosters the visitor's connection to the surrounding landscape by creating places to stop, rest and contemplate along the trails).

### 3. Project and Site



The project is an innovative endeavour that seeks to identify and create purposeful places to pause, rest, and contemplate along the trail. With a keen understanding of the surrounding landscape, including the breathtaking views, unique site characteristics, locally abundant materials, historical context, and traditional building techniques; this project aims to construct a cohesive narrative that gracefully interacts with its environment.

The project unfolds as a sequence of nine thoughtfully designed interventions, each contributing to a tailored experience along the trail while respecting the prominence of the cultural trail stations as the main focus. These interventions are strategically placed to enhance the hikers' connection with the landscape and engage them in a meaningful way. The project carefully considers the flow and rhythm of the trail, ensuring that each intervention is in the correct place and builds upon the previous one, creating a cohesive journey of exploration and contemplation.

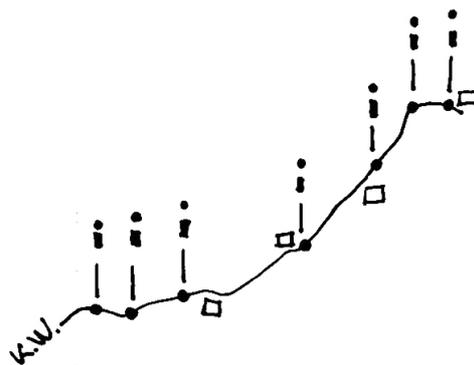
Drawing insights from the two case studies the project develops a unique relationship with the existing cultural trail and the landscape itself. In addition, it draws inspiration from the rich architectural heritage and craftsmanship of Zermatt as the interventions use locally abundant materials and traditional building techniques. This approach pays homage to the region's barn history and establishes a strong sense of place and authenticity.

The interventions frame the awe-inspiring vistas and harmoniously blend with the historical surroundings. The project's narrative is hence carefully woven into the landscape, with each intervention providing a unique perspective and encouraging hikers to pause, reflect, and connect with the natural beauty that surrounds them.

Ultimately, this landscape architecture project on the trails of the Kulturwege Zermatt enhances the overall experience by creating intentional spaces that complement the cultural stations. Found along the trail These, highlight the fact that it's not only about getting to the different stations but also enjoying the process along the way. It encourages a deeper appreciation for the landscape, history, and culture of the region while allowing hikers to forge a personal and memorable connection with the natural and cultural wonders of Zermatt.

### Project structural layout

(concept development)



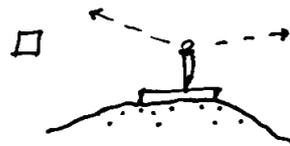
Kulturwege + "Viewpoints"

#### Cultural stations



Culture, History

#### A place to pause, rest and contemplate



Specific landscape highlights

Places to rest

Enjoy surroundings

Accompany your journey

## Chapter 2. Case Study Analysis

The following are two case studies that offer valuable insights into how architecture interacts with the landscape in distinct ways, serving as a source of inspiration for the project. Despite being located in different mountain landscapes—one in Norway and the other in the Austrian Alps—both projects share the commonality of featuring multiple interventions spread across the terrain rather than a single focal point. One project incorporates architectural interventions in the form of buildings, while the other employs benches, platforms, and other small-scale elements.

The objective is to examine their relationship within the landscape and their impact on the overall feel and experiential qualities of the trail. It is important to note that these case studies are not intended to critique or identify shortcomings in their designs, but rather to gain a deeper understanding of the diverse approaches taken by renowned architects when creating a tailored experience through architecture along a trail in a mountainous setting.

### 1. Allmannajuvet Zinc Mine Museum

2016. Sauda, Norway. *Peter Zumthor*

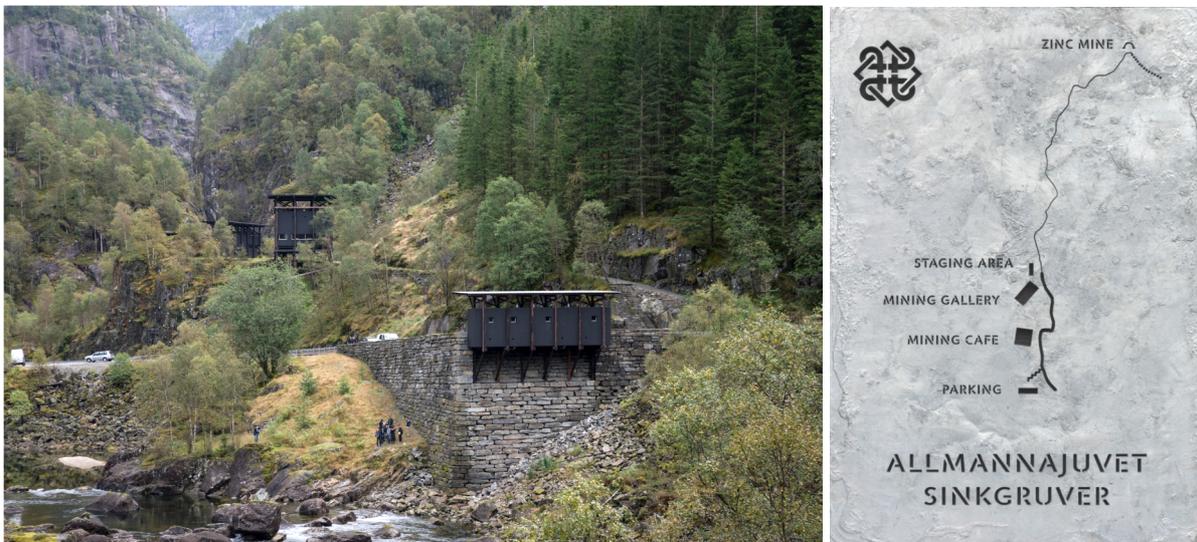


Fig. 68 Per Berntse, *Allmannajuvet Zinc Mine Museum*, 2016 <https://shorturl.at/bpnyW>.

Fig. 69 Per Berntse, *Allmannajuvet Zinc Mine Museum Map*, 2016 <https://shorturl.at/lnzC6>.

The Allmannajuvet Zinc Mine Museum by Peter Zumthor is a project that focuses on showcasing the history and heritage of Norway's zinc mining industry. From an architectural perspective, the museum's design interacts with both the visitor and the surrounding landscape. It creates a journey that weaves through the terrain, immersing visitors in the

narrative of the mining industry while harmonizing with the natural setting. As a point of entry to the location, the museum provides essential services and information to enhance the visitor experience, offering access to knowledge and materials that deepen understanding and appreciation of the site.

In order to experience the spatial qualities of the relationship between buildings and the landscape, I visited the Werkraum Haus Exhibition by Peter Zumthor in Andelsbuch, Austria. The exhibition showcases the architect's emphasis on craftsmanship and architecture, highlighting the integration of traditional building techniques and materials with contemporary design.



Fig. 70 *Werkraum Haus Exhibition* by Peter Zumthor. Nicolau Vilaró



Fig. 71 *Allmannajuvet Zinc Mine Museum Site Model*. Nicolau Vilaró



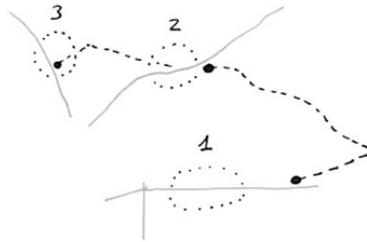
Fig. 72 *Allmannajuvet Zinc Mine Museum Site Model (1)*. Nicolau Vilaró

Through the exhibition, I had the opportunity to explore the model of the project up close, enabling me to observe the careful arrangement of the buildings within the landscape. The chosen locations and proportions of the buildings became clearer, emphasizing their harmonious integration with the surroundings.

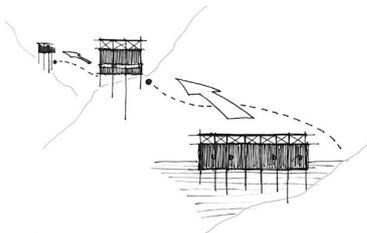
Additionally, the exhibition featured many more of Zumthor's architectural models, most previously unseen by the public, allowing me to appreciate their spatial qualities, volumes, compositions, materials, and their unique atmosphere and tailored relationship with the landscape.

The following are architectural concepts and aspects of the project that define its relationship with the landscape and overall feel as perceived from the site model.

## Sequence

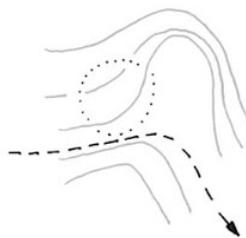


The journey to the Allmannajuvet Zinc Mine Museum begins with a partial view of the project, hidden within the mountain. As visitors approach, they first encounter an intervention next to the road, which intrigues them to follow the path leading up the stairs. This first intervention acts as a narrative prologue, planting a seed of curiosity similar to the opening of a book.

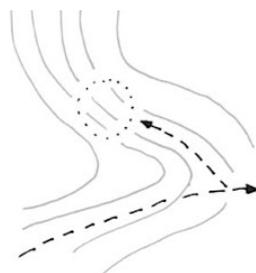


The choice to separate the buildings along the trail adds to the sequential experience while also mirroring the mining carts that once used to travel here along the rails. This deliberate sequencing invites visitors to explore and discover the project gradually, enhancing their engagement with the narrative and strengthening a desire to explore further.

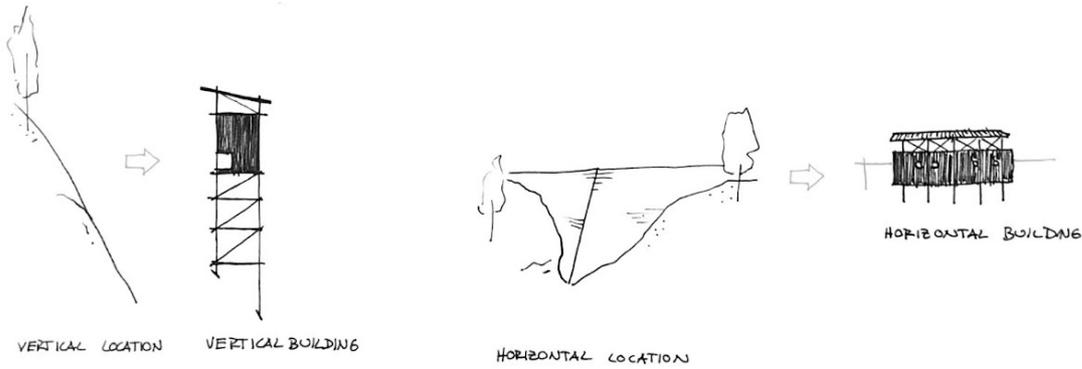
## Locations



The buildings are carefully placed in locations that highlight the dramatic topography and geological features of the landscape. They are intentionally situated within bumps and depressions, showcasing the intrinsic connection between the architecture and the surrounding terrain.

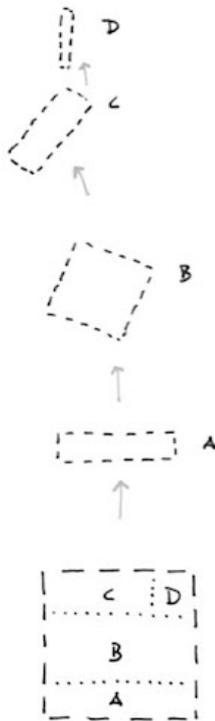


By responding directly to their specific locations, the designs become inseparable from the landscape, creating a harmonious integration. This deliberate placement not only celebrates the landscape but also ensures that the architecture and the land depend on and enhance one another.

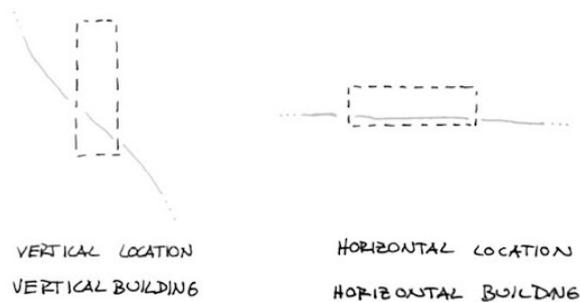


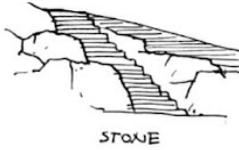
**Proportion**

The proportions of the buildings are sensitively designed to create a harmonious relationship with the surrounding landscape. Each volume is carefully placed to respond to the specific characteristics of its location.

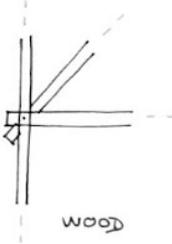


The separation of program elements along the trail allows for smaller individual buildings, ensuring that their proportions are in tune with the place they occupy. For instance, the mining cafe, situated in a relatively flatter area of the trail, adopts a more square horizontal proportion, while the mining gallery, perched on a steep rock face, embraces a more vertical proportion. This attention to proportional balance creates a visual coexistence between the architecture and the landscape, further enhancing their dependence and coexistence.





STONE



WOOD



MINE



BUILDING

## Material

The choice of materials in the Allmannajuvet Zinc Mine Museum project reflects the surrounding landscape and the context of the mining world. The use of stone in paths, stairs, and infrastructure that directly interacts with the ground connects the project to the natural quality of the terrain. Wood, reminiscent of scaffolding found in mines, is used in the building's structures. Combined with the craftsmanship and specific building techniques, they create a strong link between the new architecture and the mining heritage.

Inside the buildings, the material qualities contribute to the unique atmosphere by creating dark interiors that simulate the mining experience. Small windows provide glimpses of the outdoor world, reminiscent of viewing it from within the mine, adding to the immersive nature of the museum.

## 2. Path of Perspectives Panorama Trail

2019. Innsbruck, Austria. *Snøhetta*



Fig. 73 Innsbrucker Nordkettenbahnen / Quirin Müller, Path of Perspectives Panorama Trail, 2019 <https://shorturl.at/gwxV3>.

The Path of Perspectives Panorama Trail, designed by Snøhetta, offers a captivating experience of the alpine landscape from various viewpoints. Stretching over a distance of 2.8 km with an elevation change of 142 m, the trail contains small design gestures to highlight the remarkable elements of the surrounding Alpine scenery.

Rather than creating a singular eye-catching structure, the trail embraces tailored architectural elements that accentuate different qualities of the landscape, such as topographical changes and transitions in vegetation. Corten steel, inspired by the context and existing human interventions, such as avalanche barriers, is utilized alongside larch wood, locally sourced, to create seating and reclining platforms.

Additionally, inscriptions of quotes by Austrian philosopher Ludwig Wittgenstein on these architectural features encourage visitors to pause and reflect, offering a dual meaning to the Path of Perspectives. Situated in a remote location, the trail's visual distinction from the natural landscape that attracts visitors, enhancing their experience through thoughtful architectural interventions.

I had the opportunity to visit the exhibition "Arctic Nordic Alpine: In Dialogue with

Landscape," showcasing the work of Snøhetta. The exhibition, initially inaugurated in Berlin in 2020 and subsequently held in Prague and Milan, is currently hosted at the Zumtobel Group Light Forum in Dornbirn, also in Austria. It is dedicated to contemporary architecture in vulnerable landscapes, with a focus on the impact of interventions in regions characterized by extreme climatic conditions.



Fig. 74 *Arctic Nordic Alpine: In Dialogue with Landscape*, Exhibition. Nicolau Vilaró



Fig. 75 *Path of Perspectives Panorama Trail Site Model*. Nicolau Vilaró



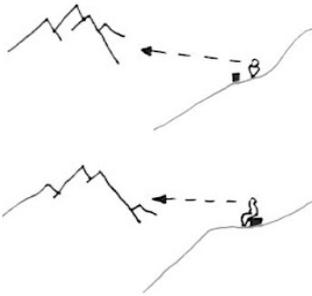
Fig. 76 *Path of Perspectives Panorama Trail Site Model (1)*. Nicolau Vilaró

Visiting the exhibition allowed me to appreciate the immense scale of the landscapes Snøhetta works with in relation to their architectural creations. I had a chance to closely examine the model of the Path of Perspectives Panorama Trail and additionally numerous other projects by the same designers. I gained valuable insights and inspiration from their approach to design and their appreciation for the precious landscapes in which they are situated.

## Nature/Landscape



The Path of Perspectives Panorama Trail places most importance on the landscape, perceiving it as a precious heritage. Snøhetta believes that landscapes are more significant than the objects within them.



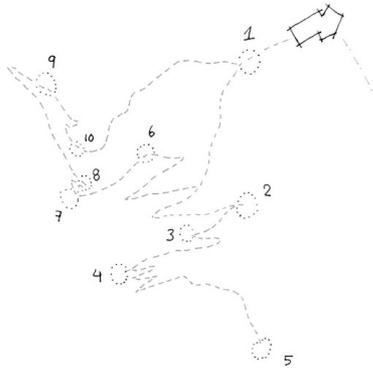
The interventions along the trail are intentionally designed to allow visitors to immerse themselves in the landscape and contemplate its beauty. By emphasizing the landscape over the architecture, the project serves as a reminder to focus on the essence of the place, encouraging a conscious relationship and respect for vulnerable landscapes.

## Size

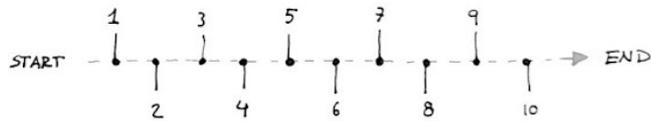


Snøhetta recognizes that architecture is relatively insignificant when compared to the vastness of the surrounding landscapes. The buildings and interventions within the Path of Perspectives Panorama Trail are intentionally small and precise, designed to complement and highlight the grandeur of the natural environment. Through their controlled presence, these architectural elements evoke a sense of awe towards the landscape, inviting visitors to appreciate its magnificence.

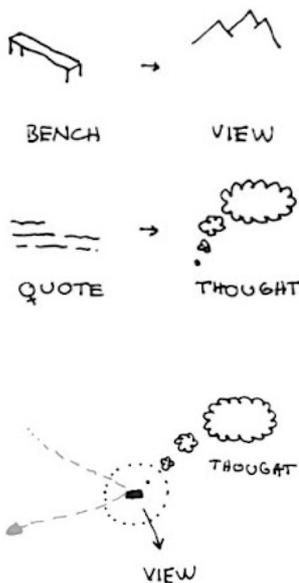
**Journey**



Embarking on the 2.8km mountain trail, visitors encounter ten unique architectural interventions that individually respond to and accentuate specific elements of the landscape. The project is conceived as a sequence of different scenes, similar to a film, where each intervention represents a distinct scene in the overall narrative. While these scenes may vary in character and tone, they collectively contribute to the main plot of the landscape experience, enhancing the journey and creating a dynamic exploration of the surroundings.



**Meaning:**



In addition to highlighting the landscape, each station along the Path of Perspectives Panorama Trail incorporates quotes by Austrian philosopher Ludwig Wittgenstein. These quotes are inscribed on the architectural features, inviting visitors to pause, reflect, and delve deeper into their experience. By incorporating philosophical reflections, the project adds another layer of meaning to the Path of Perspectives, encouraging contemplation and providing a new dimension to the encounter with the landscape. It prompts visitors to introspect and appreciate the connection between their inner thoughts and the external environment.

In conclusion, the analysis of the two case studies, the Allmannajuvet Zinc Mine Museum by Peter Zumthor and the Path of Perspectives Panorama Trail by Snøhetta, reveals the unique approaches they bring to their respective proposals while sharing a common fascination and appreciation for the landscape.

The Allmannajuvet Zinc Mine Museum demonstrates the importance of the relationship between the building and its surroundings, considering factors such as location, size, proportion, and materials. The sequential exploration of new buildings along the path into the valley offers an engaging and immersive experience.

On the other hand, the Path of Perspectives Panorama Trail presents a different approach, where the landscape takes center stage and architecture serves as a reminder to focus on the natural beauty. The sequential nature of the trail and the incorporation of quotes on the benches provoke contemplation and introspection, connecting architecture, landscape, and the visitor's inner thoughts.

These insights from both case studies, along with my observations, will serve as valuable inspiration as I develop this project. Just as the Allmannajuvet and Path of Perspectives projects considered their specific landscapes and goals, I will draw upon their lessons to create a design that engages visitors along the Kulturwege cultural trails, highlighting the historical, cultural, and natural aspects of the valley.

## Chapter 3. Design Project

This chapter is incorporated in the plans and drawings, following the same order.

### 1. Location

The Swiss Alps are well known for their awe-inspiring landscapes, characterized by towering peaks, majestic glaciers, and immaculate alpine meadows. Zermatt, a picturesque town nestled in the heart of this mountainous paradise, serves as the gateway to some of the most iconic peaks in the Alps, including the renowned Matterhorn. With its busy streets and traditional Swiss architecture, Zermatt is a blend of alpine charm and modern infrastructure.

However, located in the neighbouring hills and mountains of Zermatt, the Kulturwege Zermatt, or cultural trails, offer a remarkable journey through the valley, combining history, culture, and nature in breathtaking landscapes. These trails were originally established as footpaths and mule tracks and served as vital connections between barns, hamlets, and towns, facilitating trade and travel across the alpine passes. The association behind the Kulturwege project, Verein Alts-Zermatt, seeks to preserve and showcase the historical treasures of the valley to visitors. Through the creation of the cultural trails, they aim to protect the rich heritage of the region, discover its hidden secrets, and make visible the significance of centuries-old wooden barns that once sustained the local agrarian way of life.

Having had the privilege of meeting Mr. René-Michael Biner, the president of the Verein Alts-Zermatt, I gained invaluable insights into the creation and origins of the Kulturwege project. Mr. Biner shared his abundance of knowledge regarding barn construction in the past and the ongoing efforts to preserve these architectural gems for future generations. Accompanied by him, I had the opportunity to personally explore this year's trail stations and gain a deeper understanding of their historical and cultural importance. His guidance and expertise have played a pivotal role in shaping this project.

To conclude, the following set of plans and drawings document and provide a visual representation of the existing cultural trail created in 2019 and the newest one which will be inaugurated this year on the 24th of June. The current trail spans from Zermatt to the remote hamlet of Zmutt and the yet-to-be-inaugurated from Zmutt back to Zermatt passing through a series of small hamlets together known as Aroleyt.

- 1.1. Kulturwege Zermatt**
- 1.2. 2019 Kulturwege Zermatt - Zmutt**
- 1.3. 2023 Kulturwege Aroleyt**
- 1.4. 2025 Kulturwege Findeln and 2027 Kulturwege Zermatt Dorf**

## 2. Intention

Conceptually, the project aims to originate an intrigue about each specific place and its surroundings, igniting a thirst for visitors to pause along the trail and immerse themselves in the experience. It enables the contemplation of the landscape, not just in terms of its physical attributes but also its cultural and historical significance.

Architecturally, the project provides purposeful places to pause, rest, and contemplate, integrating with the landscape in a sensitive and appreciative manner. Drawing insights from Peter Zumthor's essay "Architecture and Landscape" from his book "Thinking Architecture"<sup>38</sup>, the design approach is based on developing a deep appreciation and connection to the surroundings. It aims to evoke a range of feelings associated with experiencing a landscape, such as the aesthetic experience of looking at the grandeur and vastness it offers, and the sense of being at home in nature with its sky, smells, light, colours, and shapes. The project acknowledges the historical and cultural significance of this particular landscape, recognizing our inherent connection to it and the need to preserve it.

To do justice to the landscape, the project emphasizes the importance of observing and studying the landscape, developing a feeling and care for what is seen. It seeks to find the right measure, quantity, size, shape, and material for the proposed interventions, aiming for attunement, harmony, and even tension. The choice of materials aligns with the historically grown substance of the landscape, ensuring integrity and authenticity. The project envisions the placement of interventions in a way that the landscape accepts and resonates with them, creating a fusion of architecture and landscape where they grow together and establish an intimate place.

By embracing these principles and values, the project aims to create purposeful interventions that integrate seamlessly with the landscape, celebrating its grandeur and offering a unique and contemplative experience for visitors. The interventions should be precise, clear-cut forms that harmonize with the surroundings without overshadowing the barns and other stations that are still the main focus of the cultural trail.

The project is deeply connected to its surroundings, recognizing the landscape as a prestigious heritage encompassing buildings, culture, and nature. It embraces the historical local building materials, technologies, and craftsmanship, ensuring a strong link to the local

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<sup>38</sup> Zumthor, Peter. 2010. *Thinking Architecture*. 3rd ed. Basel: Birkhäuser Architecture.

context. The interventions serve as a bridge between vision and reality, with their visibility playing a crucial role in connecting, interacting, and understanding the surroundings, allowing visitors to immediately connect with and appreciate the rich landscape.

As a landscape architecture project, it requires a set of qualities and characteristics that it should have in order to succeed. These will be informed by the reading of the landscape, which will be introduced later on, and the project outline. The later is defined according to previous readings and research on the topic with the goals of working with architecture, landscape and reusing:

To be a visual icon of poetic exploration reusing the place (land, buildings, local wisdom...), materials and techniques which makes justice to its surroundings through its fusion to the landscape\*.

\**Landscape*: In this case, the word is used in a broader sense meaning: geography, people, history.

### **3. Design Project**

The following plans, drawings and photographs provide visual representations that summarise the careful analysis of the landscape along the Kulturwege Zermatt trail, the development of its concept, and the project itself.

Through them, you are invited to learn about the multiple layers of the project, where landscape features, culture, history and design dialogue as they merge to create an unforgettable experience along the trail.

#### **3.1. Analysis of the landscape**

Through a series of site visits spanning four months, from March to June, I embarked on an analysis of the landscape surrounding the cultural trails. With each visit, I documented the ever-changing nature, observing how the transition from winter to spring and the arrival of summer influenced its character and also my changes in its perception.

For example, the accessibility of the trails is truly seasonally compromised. In winter, alpine valleys and mountains are permanently covered with snow, sometimes a great deal of it. This results in most trails that are open in the summer, having their signs removed during winter as a sign of the path being inaccessible. Fortunately, this winter didn't bring much snow in the valley and even though it was a challenge in some sections, it allowed me to get my first experience of it.

In addition, the shifting perception of the landscape, and the evolving atmosphere became integral elements of this comprehensive analysis. It highlighted the change of light and shadow, the textures of the trail surface, the sounds of the awakening animals with the arrival of spring. It even shifted the smells that are hidden under a thick layer of snow during winter, and find their way out through the grass and trees as the season fades. They are especially noticeable when it is raining, even for a few minutes, which I can now say it happens very often in spring.

This sequential in-person experience allowed me to get a feeling of what the trail and landscape have to offer in a variety of seasons and weather conditions. The intricacies that shape the landscape, unveil its unique qualities and provide a profound understanding of its essence. By immersing myself in this prolonged study, I was able to understand the essence of the landscape and hopefully harness its beauty in the design process.

### 3.1.1. Morphology

#### 3.1.1.1. Linear

The Zermatt Valley is home to a remarkable feature that speaks to the deep connection between human labour and the landscape: the old dry stone walls and terraces. These structures are a testament to the centuries-old tradition of human engagement with the land, carefully constructed using locally abundant materials, in this case, stone. The implementation of these walls and terraces was an art form in itself, with farmers skillfully reading the shapes of the landscape and adapting their construction techniques accordingly to create fields, division walls and even trails to get to them.

These dry stone walls and terraces form a linear infrastructure, harmoniously blending with the natural contours of the valley. Their formalization follows the linear patterns dictated by the topography, creating a characteristic rhythm within the landscape. The walls served multiple purposes, providing structural support, defining boundaries, and aiding in agricultural practices such as farming and even vineyard cultivation. Each stone was meticulously placed, fitting cohesively against its neighbouring stones without the use of mortar, showcasing the skill and craftsmanship of the builders.

Nowadays, these ancient structures not only contribute to the landscape appeal of the Zermatt Valley but also tell a story of the symbiotic relationship between humans and their environment. They are a tangible reminder of the laborious efforts of past generations, reflecting their intimate understanding of the landscape and their ability to shape it in harmony with nature. The old dry stone walls and terraces stand as enduring testaments to the ingenuity and resilience of the people who once lived and worked in this remote region.

#### 3.1.1.2. Scattered

Barns, stables, homes, and other structures related to farming are dispersed throughout Zermatt's landscape for a number of reasons. The topography, the fields they serve, and other useful factors are among them. These structures' dispersed morphology is a response to the particular requirements of farming and agriculture in this area.

The inclined topography of the land plays a crucial role in the distribution of these buildings. Given the expanse and challenging nature of farming on such terrain, multiple small-sized barns were constructed along the fields. This strategic placement allowed farmers to optimize their work by having storage and shelter facilities conveniently located throughout their land.

This morphology of the built environment demonstrates a harmonious relationship between the landscape and the practical requirements of agricultural activities. Such as the collection of manure closer to the fields (where it was needed) for fertilization or temporary shelter for livestock.

The dispersed nature of these buildings reflects the wisdom and ingenuity of the farmers who adapted their practices to the specific characteristics of the Zermatt landscape, creating a sustainable and resilient farming system that remains an integral part of the region's heritage.

### **3.1.2. The material**

#### **3.1.2.1. Stone**

The resourcefulness of the farmers in Zermatt is evident in their use of locally sourced stones to create paths and walls throughout the landscape. Using mainly gneiss and granite, they employed various methods to construct these features, adapting to the characteristics of the stones and the specific site conditions. The farmers skillfully utilize the natural abundance of stones in the area, selecting and arranging them in different ways to achieve their intended goals. These vary depending on stone size, shape, and availability, as well as the purpose and setting of the path or wall. These man-made structures seamlessly integrate into the natural environment, showcasing the close relationship between human work and the landscape.

In addition to the paths and walls, stone pavements can be found not only along the trails but also in other outdoor areas, such as nearby benches or specific parts of the hamlets where people gather. They feature different compositions and arrangements, reflecting the size, abundance, purpose, and time of construction of the pavement. The embedded stones serve multiple functions, from protecting the paths against erosion and providing traction during rainy days when cattle were walking, to adding aesthetic value and maintenance practicality nowadays. The history of some of these stone pavements dates back to ancient times, with

similar paths being used around the Alps even during the Roman era. The stones used for their construction were typically sourced from nearby quarries on the mountain sides, highlighting the local nature of their implementation.

The use of locally sourced stones in various aspects of the landscape not only demonstrates the practical ingenuity of our ancestors but also contributes to the cultural and historical richness of Zermatt. These stone features, whether walls, paths, or pavements, serve as enduring testaments to the resourcefulness, craftsmanship, and harmonious integration of human elements with the surrounding natural environment.

#### 3.1.2.2. Wood

Centuries ago, the inhabitants of the Zermatt Valley relied extensively on forests and their wood for their construction needs. The abundant tree species in the area, such as Swiss stone pine, larch, and fir, provided a readily available source of wood for their constructions.

Wood was utilized in different forms and for multiple purposes in the construction of buildings and sometimes infrastructure (bridges). However, most of what can be found in the Zermatt Valley in wood are buildings. The strong tree trunks were transformed into beams, stilts, and pillars, providing structural support for the walls and roofs. The walls themselves were often crafted from wooden logs, carefully split, fitted and joined together using traditional methods such as Strickbau (square section log corner joint) and in some cases mortise-and-tenon joints.

With the use of contemporary technology and machinery, restoration projects aim to preserve historic buildings using the same materials and methods used by their ancestors. Pioneering dendrochronology, along with modern construction techniques, preserves the authenticity and durability of these structures while preserving the area's rich cultural past. The restoration work not only helps to preserve these old buildings but also shows how valuable wood has always been as an adaptable and long-lasting building material.

### **3.2. Concept**

A stone path weaves its way between pristinely green fields, gently surrounding a solitary tree. This image captures the essence of a man-made intervention, gracefully interlinked with the flow of nature. A delicate dance.

The trail, though crafted by human hands, arises from the very materials provided by the earth, establishing the balance between human necessity and nature's grace. In this harmonious dialogue, we find a profound connection, a testament to our linked existence with the landscape.

It is a reminder that our passage through the mountainous terrain can be a journey with reverence, embracing the landscapes that feed us, as we navigate our way with care and appreciation.

#### **3.2.1. A bridge without a bridge**

The concept behind the project is to explore the role of architecture in shaping our perception of the surrounding landscape. This idea is best exemplified by these two pictures.

In the first image, a bridge spans over a river in the Zermatt Valley forest. Here, the bridge serves its functional purpose, acting as infrastructure to cross from one side of the river to the other. Therefore it's a piece of infrastructure that we pass through to get to our destination across challenging terrain.

However, in the second image the bridge has been removed, leaving behind only the stone support or pedestal. With the absence of the bridge, the purpose and meaning of this structure has changed dramatically. It becomes a destination in itself, a place to pause, and an invitation to contemplate one's surroundings. The new narrative of this piece of infrastructure emphasises the importance of taking a moment to connect with nature rather than merely passing by.

This simple pedestal or platform next to the path presents an opportunity for us to imagine ourselves stopping, stepping onto it, and immersing ourselves in the breathtaking scenery. It highlights the role of architecture in altering our perception and awareness of our environment when hiking along a path. By carefully placing and shaping elements within the

landscape, spaces can be created that encourage us to pause, rest and contemplate on our journey along the Kulturwege (Cultural Trails).

This project is a study on how architecture can influence our awareness and perception of our surrounding landscape. A tailored experience as a sequence of pauses along an alpine cultural trail.

### **3.2.2. Current places to pause**

Along the trails of the Kulturwege Zermatt, there are existing places to pause and rest. These places can be categorised into three main types: places to stop with a view, places to stop without a view, and places to stop and interact. Despite all having benches as a common feature, each category has its own unique qualities.

Places to stop with a view feature captivating vistas of the surrounding landscape. These locations offer a moment of contemplation, where hikers can pause and immerse themselves in the scenery.

On the other hand, places to stop without a view are mostly found inside the dense forest, offering a more sheltered pause in our path.

Lastly, places to stop and interact encourage engagement with the provided facilities such as interactive stands or parks.

While the existing places to pause along the trails provide valuable resting spots, they adopt a different approach compared to the proposed project. The project aims to create a more subtle and immersive experience by carefully reading the landscape and integrating interventions that blend seamlessly with the surroundings. It emphasises a fusion with the local materials, history, and culture, and seeks to construct a narrative that makes hikers aware of their constantly changing environment.

### 3.2.3. Landscape reading

The landscape reading along the cultural trails of the Kulturwege Zermatt highlights eight features and experiences from the visitor's perspective.

These include changes of surroundings, as the trail goes through diverse landscapes.

The shifting direction of the trail, influenced by the topography which introduces moments of pause and recalibration. The outstanding view of the Matterhorn, hidden by neighbouring mountains and trees, captivates our attention when revealed at specific locations along the path.

As we advance along the trail, new waypoints including stations and hamlets emerge, fueling our curiosity. Some of them have become landmarks of the region and even of the continent such as Europe's Oldest Barn in the hamlet of Herbrig.

The dramatic changes in elevation further segment the trail, each section offers its own unique qualities and sparks our attention during transitions.

Panoramic views greatly influence our perception of the landscape, expanding our field of view and allowing us to appreciate the grandeur of the surroundings.

Lastly, shade from trees, buildings or natural formations such as mountains can create comfortable places to stop.

Together, these eight features offer a multi-dimensional experience along the cultural trails, inviting us to pause and contemplate the awe-inspiring beauty of the Zermatt Valley.

#### 1. A change of surroundings

The trail goes through multiple types of landscapes along its length. Starting from the crowded urban context of the town of Zermatt, to dense forests and wide open fields.

As we make our way along the trail, these changes in scenery are introduced to us as new scenes in a film. Each has its own environment and presents new information and characters, some of which will continue with us for longer or shorter periods of our journey.

## 2. A shift in direction

Changes in the direction of the trail are greatly influenced and dictated by the topography of the landscape. Whenever we encounter one of these variations it slows us down and forces us to recalibrate and reconsider the new section of trail up ahead.

These places are also very frequent locations where hikers tend to stop and regroup as the first ones wait for the following ones to catch up. Hence, the view and spatial qualities of these points become even more relevant as people spend more time on them.

## 3. View of the Matterhorn

The Matterhorn is undoubtedly the main landmark and visitor attraction of Zermatt. When the weather allows it, its majestic stance and sheer height tower over the valley as a natural icon and make any visitor stop to contemplate it.

However, when walking along the cultural trails it is mostly hidden behind neighbouring mountains or forest trees. It is only visible in specific locations on the path that reveal its presence like carefully released droplets.

## 4. A new waypoint

In addition, other highlights are also systematically revealed along the trail. Once we catch a glimpse of them for the first time they become our newest waypoint. A sight to see and a place to go.

These points can be stations from the cultural trail, small hamlets or secluded barns.

## 5. Landmark

Several of these highlights and stations along the trail have been part of the landscape of the Zermatt Valley for centuries. Their landmark status is due to their outstanding cultural and historical relevance.

Although there are many on the Kulturwege Zermatt, the most renowned landmark is Europe's Oldest Barn from 1261, in the small hamlet of Herbrig.

## 6. Change in elevation

Just like shifts in the direction of the trail, their sudden change of elevation is also dictated by the topography. These pronounced shifts in altitude mark specific points on the trail that transform the unified linear concept of a trail and segment it into multiple sections.

Each of these segments has its own qualities and characteristics. Nevertheless, our attention and perception of our surroundings are brought up when transitioning from one to another. The pronounced changes in the steepness of the trail thus become a feature of the landscape.

## 7. Panoramic views

Our perception of the features of the landscape is greatly influenced by our field of view.

Specific locations cause our field of view to be greatly expanded. This may be due to a change of scenery (1), a shift in direction (2) or a change in elevation (6). In addition, these places can include views of the Matterhorn (3) (or neighbouring mountains), new waypoints (4) and sometimes landmarks (5).

## 8. Shade

Shade, the final landscape feature to be highlighted, plays a crucial role when selecting a resting spot along a mountain trail. It provides protection from the sun and enhances the overall comfort for visitors.

Shade can be found in various forms, such as the canopy of trees in the forest, the shelter of barns or other structures, or even the natural formations of mountains, hills, and cliffs. These elements offer places to rest and contribute to the enjoyable experience of pausing and appreciating the surrounding landscape.

### **3.2.4. Brainstorming**

The following are an array of sketches, each an idea for the project and its multiple parts. It is an exploration of possibilities that emerged while envisioning the project's concept.

These sketches, diverse and distinct, offer a tapestry of intriguing possibilities, serving as seeds that may find their way to the final proposal, each bearing the potential to enrich the project's essence.

### **3.2.5. Merging of ideas**

The project idea emerges from the fusion of seven key concepts: linear infrastructure inspired by the old stone paths and terraces, a scattered distribution mirroring the barns and hamlets, landscape features derived from the landscape reading, a sequence of events similar to the cultural trail stations, places to pause as a newly introduced element derived from the goal of the project, and the use of local materials in alignment with the project's intentions.

These ideas are united to create a project that offers an immersive experience of awe and reverence for the surrounding landscape. It intertwines seamlessly with the cultural trail, its stations, and the overall experience of hiking along the trail, amplifying the connection between visitors and the captivating natural environment.

### **3.2.6. Visual concept**

The visual concept of the project unfolds as a series of thoughtfully placed platforms within the landscape. These platforms serve as purposeful interventions along the trail that harmonize with the surroundings, drawing inspiration from the notion of a stone path evolving into spaces for rest dictated by the landscape.

They contain the intention of igniting intrigue and inviting contemplation, allowing visitors to immerse themselves in the unique experience offered by the landscape in each specific place. By carefully considering the landscape's physical attributes, cultural significance, and historical context, the project aims to create a seamless fusion of architecture and landscape. It celebrates the grandeur of the surroundings while ensuring the integrity and authenticity of the local materials and craftsmanship.

The interventions serve as visual icons, symbolizing the poetic exploration and connection to the our surroundings, evoking a sense of awe and appreciation for the landscape.

### **3.3. Project**

The following plans and drawings are the culmination of a thought process and analysis of the landscape and cultural trails in the valley of Zermatt.

This project aspires to be a visual icon of poetic exploration by repurposing the land, buildings, local wisdom, and employing materials and techniques unique to the region. Through a fusion with the landscape, the design seeks to do justice to its remarkable surroundings, offering an immersive experience for visitors who hike the Kulturwege trail.

#### **3.3.1. Site locations**

Each site along the trail has been thoughtfully selected for its unique reasons and characteristics, which offer a distinct set of challenges and opportunities. Hence, the diverse array of locations offers a varied tapestry of settings and landscapes. Their precise locations are informed by several factors previously mentioned in the landscape reading. These include changes of scenery, shifts in direction, views of the Matterhorn, new waypoints, landmarks, changes in elevation and also panoramic views.

By carefully considering these elements, the sites share conceptual and sometimes spatial qualities while still being different from one another. This opens up an array of distinct possibilities in every location while still being able to be related to one another as recognizable interventions of a cohesive narrative.

Some, require little intervention according to preexistences, while others offer opportunities for more extensive design intervention that highlights specific geographical features or landscape elements. The challenge lies in finding a balance between preserving the qualities of the sites and trail and creating spaces that invite pause and contemplation.

By understanding the unique characteristics, challenges, and opportunities of each site through landscape reading and inner appreciation of the place, the project aims to craft interventions that dialogue with the existing landscape. The following analyses examine the specifics of each selected location, highlighting the individual significance that makes them ideal for an intervention.

### **3.3.2. Sequence**

The sites along the trail, together with the cultural stations, are viewed as a sequential series of events that unfold as we journey along the path.

Some of these sites coincide with the cultural stations, forming a collaborative experience that accentuates the significance of each location and encourages visitors to stay longer than they would otherwise do. These combined sites and stations create focal points where the landscape's cultural and historical importance is showcased.

Additionally, there are sites situated between stations, strategically positioned to emphasise the distinctive characteristics of the landscape itself. These in-between sites give rise to moments of awe, wonder and admiration, inviting us to pause and immerse ourselves in the ever-changing beauty of our surroundings.

### **3.3.3. Site analysis**

The site diagrams consist of a series of 9 concise visual representations, each dedicated to a specific site along the trail. These diagrams aim to capture the essence of each site by showcasing the trail's trajectory, the site's location, view directions, and the prominent surrounding features that shape the stage upon which the site is set.

These features may be dense clusters of trees signifying forests, imposing cliffs or steep inclines, and nearby buildings. By highlighting these elements, the diagrams emphasize their direct physical impact on our journey and perception of the site, guiding both our path and our view.

While these diagrams provide a simple overview, further details will be added for each site in the corresponding site analysis plan.

#### **3.3.3.1. Site 1**

Site 01 is a significant location along the trail and is situated at a bump in the topography after leaving Zermatt. The journey to reach this point involves a challenging ascent, providing a sense of accomplishment and marking our first direct contact with nature. As we arrive, we are rewarded with a breathtaking 360° panoramic view, offering a glimpse of the

stunning landscapes that lie ahead. This site also coincides with the 3rd station of the Kulturwege, known as Flüe, which showcases the meadows, fields, and intricate watering systems characteristic of the area.

The selection of Site 01 takes into account various factors. Firstly, it serves as a much-needed resting point after the demanding climb, allowing visitors to catch their breath and absorb the natural surroundings. Additionally, the choice of this site aligns with the principles derived from the landscape reading. It signifies a change in surroundings, transitioning from an urban environment to the vastness of nature. The shift in direction is also evident, as the trail now goes deeper into the valley, unveiling new types of landscapes. Moreover, this site reflects a change in elevation, with the steepness of the initial ascent giving way to a more gradual incline. Lastly, it offers the first captivating glimpse of panoramic views in all directions, inviting contemplation and appreciation of the expansive beauty that surrounds us.

#### 3.3.3.2. Site 2

Site 02 is positioned slightly further along the trail, after navigating a series of turns and passing by a few trees. As we progress, a captivating sight awaits us as we get a glimpse of the picturesque hamlet of Herbrig that emerges behind the trees on the upcoming hill. This marks our first encounter with a hamlet along the trail, shifting our attention towards the anticipation of what lies ahead.

While the panoramic views are still on our left-hand side, our focus at Site 02 is primarily directed towards the newly introduced waypoint, the hamlet of Herbrig. The selection of this site is driven by the distinctive landscape features it offers. It is strategically positioned after a change in direction of the trail, symbolizing a transition and the introduction of a new waypoint along our journey. Additionally, shade is provided by nearby trees and from this vantage point, we can still enjoy panoramic views of the surrounding landscape.

#### 3.3.3.3. Site 3

On the hill behind the curtain of trees, Site 3 reveals a captivating scene that englobes the essence of the trail. This open expanse, located in front of the small hamlet, presents an awe-inspiring vista overlooking the picturesque valley of Zermatt. It is undeniably one of the

most captivating sites along the trail, inviting visitors to pause and immerse themselves in the breathtaking landscape.

Here, we are greeted by a mixture of the various landscape features that have defined our journey. The transition from the dense forest to the expansive open fields marks a change in surroundings, while the trail's gentle turn reveals a shift in direction. As we emerge from the forest, if weather conditions allows, an anticipated sight awaits us as the majestic Matterhorn is finally revealed, standing proudly against the sky.

This hilltop site contains a small hamlet, which is home to Europe's oldest documented barn dating back to 1261, a testament to its historical significance. The elevated position of the hamlet represents a change in elevation, requiring a climb to reach and descending as we continue our journey. The site offers uninterrupted panoramic views that encompass the sweeping grandeur of the surrounding mountains and the idyllic valley below.

Once our stop is over, the trail proceeds downwards through the dense forest, guiding us to the next sites and stations along the valley.

#### 3.3.3.4. Site 4

Site 4 emerges as a captivating revelation, unveiling itself during the dense forest. As the trail suddenly opens up, a breathtaking landscape unfolds before our eyes, offering a panoramic view capturing the majestic Matterhorn, the charming hamlet of Furi, and the vast expanse of the valley.

This site serves as a glimpse of the goal that lies ahead, and plants a seed of hope within us as we journey through the thick forest. It signifies a change in surroundings, as the forest gives way to the expansive vistas, accompanied by a shift in the trail's direction and a gentle descent in elevation. Although not present on the site itself, shade can be found in the nearby trees. The presence of the Matterhorn further enhances the magnificence of the panoramic views.

With each step forward, we understand more and more what the trail is about. It stands as a testament to the remarkable harmony between nature and the human spirit, inviting us to embrace the grandeur and limitless surprises that lie ahead.

### 3.3.3.5. Site 5

Site 5 is revealed as we emerge from the forest. We are greeted once again by the presence of the Matterhorn which towers above the open countryside. Having traversed past a barn and a couple of stone houses, a short yet steep climb brings us to this site. The site is nestled behind two surrounding two barns and the remains of an old shed's stone foundation, which can be seen scattered throughout the area. These overlook the valley and are the Kulturweg's 10th station.

This site contains several landscape features. It marks a new waypoint, offering a glimpse of the distant hamlet of Zmutt. The iconic barn, elevated on stone pillars, stands as a landmark and has become an emblematic symbol of the Alps, instantly recognizable to all who encounter it. The site's location also reflects a change in elevation, having ascended to reach this station, while the trail descends as it continues. And, of course, panoramic views all around the barns. These, on a sunny day, offer a great deal of shade behind them, which creates a pleasant place to stop.

In this convergence of elements, Site 5 offers us to pause, absorb, and appreciate the harmonious interplay between nature, cultural heritage, and the ever-unfolding journey that lies ahead.

### 3.3.3.6. Site 6

Site 6 emerges as we pass beneath the branches of a tree next to the trail. Here, the path descends and is paved with stones from the surrounding area, leading us past a massive exposed rock that reminds us of the presence of a former glacier, evidenced by the longitudinal marks carved on its surface. Station 12 of the Kulturwege marks the convergence of this paved trail and the stone, creating a distinct site.

Site 6 is set in a small area adjacent to the wooden fence, just beyond the tree and the trail marker, where panoramic views of the Matterhorn, Zmutt, and the fields captivate our gaze. Landscape features of this site include a pronounced shift in direction as the trail turns left, the first proper view of Zmutt as our newest waypoint, a change in elevation as we pause before descending further, nearby shade under the tree, and, of course, breathtaking panoramic views with the presence of the Matterhorn.

As we continue on, the trail gently descends behind a couple of houses, one of which is Station 13.

#### 3.3.3.7. Site 7

Situated on a sharp bend as the trail begins its descent toward the hamlet of Zum See, Site 7 is the first of 3 sites set on the yet-to-be-inaugurated section of the Kulturwege called Aroleyt (24th June 2023).

This picturesque hamlet is the largest along this cultural trail. From this vantage point, we can take in the beautiful view of Zum See, as well as the steeply descending trail that lies before us, a pathway that demands attention with its presence of steps. It allows us to pause, absorb our surroundings, and prepare ourselves for the upcoming short but steep descent.

Notably, this portion of the trail remains accessible during winter, allowing visitors to hike between Zermatt and Furi. The selection of Site 7 is influenced by landscape features such as a sharp shift in direction, a change in elevation, the presence of a new waypoint, and panoramic views.

#### 3.3.3.8. Site 8

Within the traditional hamlet of Blatten, the final village before our return to Zermatt, Site 8 finds its place on a quiet meadow. This picturesque expanse features a collection of barns, granaries, storehouses, and charming houses on one side, while the other side faces a dense forest that will guide us through the valley.

At the heart of this meadow, we encounter a noticeable bump, marked by a massive flat rock, marking the place of the site.

Here, the landscape unfolds with distinctive features: a coming shift in surroundings as we venture into the neighboring forest, a landmark including the region's traditional buildings amidst an unspoiled setting, and panoramic views that embrace the surrounding terrain, including our final glimpse of the majestic Matterhorn in the distance. We will not see it until we reach the journey in Zermatt. This site presents us with a precious opportunity to pause

and appreciate the vast openness of our surroundings one last time, appreciating their imminent transformation.

#### 3.3.3.9. Site 9

Site 9, the final destination of our project, is set within the enchanting forest. The path grants us a captivating view of a space with historical and cultural significance, nowadays it's a park for both children and adults.

This change in scenery serves as a reminder to attune our senses and fully appreciate our new surroundings. Site 9 offers panoramic views that reveal the allure of this place. Set in a gentle change in elevation, we find ourselves descending gracefully through the shaded forest.

From here, the path descends through the forest, crossing a river via a bridge, and finally leading us to the wide-open fields of Zermatt, where our journey ends.

### 3.3.4. Proposal

The design proposals presented here represent a fraction of the complete sequence of the 9 analyzed sites along the cultural trails.

Out of these 9 sites, 3 have been carefully selected for development due to their remarkable landscape features and their potential to work together as a cohesive sequence.

Each proposal is approached individually, while keeping in mind the overarching concept of being part of a larger sequence. This ensures a consistent visual language that can be followed and recognized by visitors along the trail, while still providing unique and distinct experiences at each site.

#### 3.3.4.1. Site 3

Site 3, situated in the hamlet of Herbrig, is a significant location within the project due to its multitude of landscape features, such as panoramic views, a landmark, a view of the

Matterhorn, changes in elevation, and a shift in scenery. Moreover, it is home to Europe's oldest barn, dating back to 1261.

The architectural intervention in Site 3 consists of two distinct elements, both seamlessly integrated into the existing fabric of the hamlet and the landscape. The first intervention is a wide stone plinth strategically positioned in front of the hamlet, serving as a viewpoint that frames the picturesque valley below. This inviting structure encourages visitors to step onto it, preventing them from obstructing the trail while offering an elevated vantage point.

The second part of the intervention involves the reconstruction of a pile of stones located in front of the historic barn. Employing the same technique as the viewpoint, locally sourced stones are meticulously arranged, featuring a distinctive vertical top row inspired by nearby ancient stone pavements. Another design feature is the diagonal stone pavement which is inspired by the roofs of the neighbouring buildings. This reconstructed plinth serves as a marker of the barn's historical and cultural significance, inviting visitors to approach and explore it further through the addition of steps.

From here, the trail continues its descent into the forest, leading towards the project's next site, Site 4.

#### 3.3.4.2. Site 4

Site 4, located within a dense forest along the trail, offers a captivating panoramic view that becomes a precious moment within the otherwise secluded surroundings. As the trail sharply turns right, the vista unfolds before us, with the last buildings of Zermatt on the left, the hamlet of Zum See directly ahead, and, if the weather allows, the majestic Matterhorn to the right.

The architectural intervention proposed for this site aims to provide an immersive experience, bridging the gap between the trail and the view.

Inspired by the traditional barns of the region, the design features a simple geometric volume that extends towards the breathtaking scenery. Constructed using local techniques, materials, and knowledge, the structure adopts the proportions and dimensions commonly found in barns (3 and 4 meters). Hence, the structure is 4 meters wide and square sections

of 3 meters extend into the view. To adapt to the steep topography, the last section of the structure vertically incorporates the golden section ratio also starting from 3 meters.

As visitors approach, they encounter a stone plinth made from nearby stones, elegantly tied at the corners for stability while also preserving the alignment of the vertical lines of the end of the stones. The surface transitions seamlessly from large flat stone slabs reminiscent of barn roofs to a wooden structure resembling raised barn stilts. Vertical stones on the upper part of the plinth, inspired by nearby pavement details and stone steps, are transformed into transversal wooden beams that support the stone slab pavement and distribute its weight to the robust wooden structure.

By incorporating elements from traditional local buildings, this intervention creates a unique structure that is in harmony with the local building and construction heritage that invites visitors to be a part of the captivating landscape.

#### 3.3.4.3. Site 5

In Site 5, The focus of the architectural intervention, is divided into two parts, both made up of reconstructions of existing piles of stones. These piles, remnants of old shed bases, are currently unstable and not suitable for stepping on. However, they are now envisioned as a series of pauses and curated viewpoints in this specific site of the trail.

Upon reaching the site after a short steep climb, a step invites visitors to step onto the first platform, the larger of the two. From here, a rare opportunity arises to look back and appreciate the path traveled. Turning around, the stilted barn comes into view, guiding visitors towards the next platform. Another step indicates the transition from the plinth, allowing for a seamless progression towards the next barn and platform.

This step is thoughtfully positioned to provide a glimpse of the beginning of the subsequent platform. Continuing the designed sequence, visitors ascend the second plinth, which extends beyond the barn, granting a magnificent panoramic view of the surrounding valley. The careful arrangement ensures that the view is only fully revealed at the end of the platform, emphasizing its significance.

After following this sequence of pauses and selected views, visitors can then resume their journey towards the hamlet of Zmutt, which becomes visible from the second platform.

## Chapter 4. Conclusion

First of all, I would like to extend my gratitude to the people who have supported and guided me throughout this four month project. To begin, I want to thank Prof. Teresa Galí-Izard, my Project Supervisor, for providing me with the exceptional opportunity to work on a project at ETH Zürich. To continue, I express my sincere appreciation to Prof. Julia Campomaggi, my Home University Consultant, for her insightful contributions and continuous support. Lastly, I would like to extend my thanks to Mr. René-Michael Biner, the president of Verein Alts-Zermatt, for his time and generously sharing his extensive knowledge about the trails, the association, and the barns in the Zermatt Valley.

Throughout this project, an extensive research process unfolded, taking into account various aspects related to barns, the Zermatt Valley, and the cultural trails. From many literature reviews to engaging with key individuals, provided a solid foundation for understanding the historical, cultural, and architectural significance of this unique region. Furthermore, the numerous field trips to Zermatt and the cultural trails over the course of four months allowed for a profound experiential understanding of the landscape. Witnessing the changing seasons, from the snowy landscapes of late March, the rainy days of April and May and to finally the vibrant green fields of June, filled my journey with an appreciation for the dynamic and ever-changing nature of the region.

The insights gained from the case studies played a pivotal role in shaping the project's direction. These studies not only provided valuable knowledge but also served as a source of inspiration, enabling the project to evolve in its shaping and respond to the unique preexistences, challenges and opportunities presented by the Zermatt Valley. The combination of rigorous research and immersive experiences enriched my understanding and informed the project's development.

The Design Question posed for this project, "Can the landscape, as an experience of contemplation, be incorporated alongside the Cultural Trails?" has been answered. Through careful consideration of the existing landscape, historical culture and trail layouts together with the project's intention, landscape analysis, conceptual development, and site analysis, a coherent and integrated approach has been achieved. By strategically selecting nine specific sites along the Kulturwege trails, the project successfully incorporates contemplative spaces that invite visitors to connect with and immerse themselves in the surrounding landscape. They provide moments of awe. Each of the selected sites has been thoughtfully designed to

provide opportunities for rest, reflection, and a deep appreciation of the natural beauty that surrounds the cultural trails. In addition, their design is carefully informed by the region's historical building heritage and traditions, while also incorporating design features that respond to the specific features of the landscape and the needs of our time.

In conclusion, this project is the result of extensive research, insightful analysis, and thoughtful design. It has been an unique journey discovering the beauty of the Zermatt Valley, its historical origins, new pathways, and centuries-old barns. And also designing a close relationship between architecture, nature, and the human experience. I believe that this project has the potential to significantly contribute to Zermatt's cultural trails by providing visitors with an awe-inspiring experience and new **Landscape Perspectives**.

## Bibliography

- Freeman, Sarah, "The Alps' Oldest Hamlet Has a History That Surprises Even the Locals," *Travel*, November 14, 2022, <https://www.nationalgeographic.com/travel/article/new-hiking-trail-zermatt-swiss-alps>.
- Haines, Troy. "Traditional Farming in the Swiss Alps - Alpine Hikers." *Alpine Hikers*, March 7, 2023. <https://alpinehikers.com/traditional-farming-in-the-swiss-alps-2/>.
- Kulturwege Zermatt. "Bauweisen." <https://www.kulturwege-zermatt.ch/bauweisen/>.
- Sigel, Brigitt. *Ställe, Scheunen, Stadel: Die Erhaltung Landwirtschaftlicher Bauten Als Rechtsproblem*. vdf Hochschulverlag AG, 1991.
- Freeman, Sarah. "Stadels: The Age-Old Barns That Fed the Alps." *BBC Travel*, October 7, 2022. <https://www.bbc.com/travel/article/20221004-stadels-the-age-old-barns-that-fed-the-alps>.
- Cutieru, Andreea. "Architecture and Nature: A Framework for Building in Landscapes." *ArchDaily*, October 23, 2020. <https://www.archdaily.com/950043/architecture-and-nature-a-framework-for-building-in-landscapes>
- Davies, Alan. "Why Do We Love Old Buildings so Much?" *The Melbourne Urbanist*, July 1, 2011. <https://melbourneurbanist.com/2011/05/11/why-do-we-love-old-buildings-so-much/>.
- De Botton, Alain. *The Architecture of Happiness* (Penguin UK, 2007).
- Bondolfi, Sibilla. "What to Do with Abandoned Stables? A Thorny Issue in Switzerland." *SWI swissinfo.ch*, January 28, 2022. <https://www.swissinfo.ch/eng/society/what-to-do-with-abandoned-stables--a-thorny-issue-in-switzerland/47301056>
- Bellwald, Walter. "Neues Spielhaus Für «Chinderwält»." *1815.Ch/WB Mobil*, n.d. <https://www.1815.ch/rhonezeitung/zeitung/region/neues-spielhaus-fuer-chinderwaelt/>.
- Berque, Augustin. *Thinking Through Landscape*. Abingdon-on-Thames: Routledge, 2016.
- Zermatt, Switzerland. "1891: Dedication Visp-Zermatt Railway Line | Zermatt, Switzerland," n.d. <https://www.zermatt.ch/en/History/1891-Dedication-Visp-Zermatt-railway-line>.
- Zermatt, Switzerland. "Viewpoint Old Part of the Village | Zermatt, Switzerland," n.d. <https://www.zermatt.ch/en/Media/Attractions/Viewpoint-Old-part-of-the-village>.
- Kulturwege Zermatt. "Gebäude und Zeit," n.d. <https://www.kulturwege-zermatt.ch/geb%C3%A4ude-und-zeit/>.
- Bechtel, Dale. "Old Alpine Trading Route Revived." *SWI Swissinfo.Ch*, September 29, 2017. <https://www.swissinfo.ch/eng/old-alpine-trading-route-revived/995202>.
- Verein Alts-Zermatt. "Historisches & kulturelle Schätze von Zermatt". <https://www.alts-zermatt.ch/>.

Kulturwege Zermatt. "Kulturweg Zermatt-Zmutt," n.d.

<https://www.kulturwege-zermatt.ch/weg-zermatt-zmutt/>.

Kulturwege Zermatt. "15. Fazit," n.d.

<https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>.

Zermatt, Schweiz. "Weiler Zum See | Zermatt, Schweiz," n.d.

<https://www.zermatt.ch/Media/Attraktionen/Weiler-Zum-See>.

Zermatt, Schweiz. "Weiler Blatten | Zermatt, Schweiz," n.d.

<https://www.zermatt.ch/Media/Attraktionen/Weiler-Blatten>.

Zermatt, Schweiz. "Weiler Findeln | Zermatt, Schweiz," n.d.

<https://www.zermatt.ch/Media/Attraktionen/Weiler-Findeln>.

Effa, Julio. "Allmannajuvet Zinc Mine Museum / Peter Zumthor." ArchDaily, December 22, 2022.

<https://www.archdaily.com/796345/allmannajuvet-zinc-mine-museum-peter-zumthor>.

Nasjonale Turistveger. "Allmannajuvet," n.d.

<https://www.nasjonaleturistveger.no/en/routes/ryfylke/allmannajuvet/>.

Pintos, Paula. "Path of Perspectives Panorama Trail / Snohetta." ArchDaily, March 11, 2022.

<https://www.archdaily.com/920699/path-of-perspectives-panorama-trail-snohetta>.

Designboom. "Peter Zumthor's Werkraum Haus Exhibition Celebrates Architecture Born of Craftsmanship." Designboom | Architecture & Design Magazine, March 15, 2023.

<https://www.designboom.com/art/peter-zumthor-werkraum-haus-exhibition-architecture-craftsmanship-03-07-2023/>.

Snøhetta, "Exhibition: Arctic Nordic Alpine," n.d.

<https://www.snohetta.com/projects/exhibition-arctic-nordic-alpine>.

Zumthor, Peter. 2010. *Thinking Architecture*. 3rd ed. Basel: Birkhäuser Architecture.

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Fig. 1 Author unknown. *Zermatt Schafe* (Zermatt sheep). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

Fig. 2 Author unknown. *Täsch Korn 1929* (Täsch Grain). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1929. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

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Fig. 4 Author unknown. *Täsch Kornspeicher 1959* (Täsch granary 1959). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1959. [shorturl.at/hqyD0](https://shorturl.at/hqyD0)

Fig. 5 Author unknown. Image reference: FB\_IMG\_1651297043426 "Family harvesting hay with barns in the background". Photograph. Sammlung Willisch Urs, Kulturweg Zermatt. Date unknown. [shorturl.at/eDFZ6](https://shorturl.at/eDFZ6)

Fig. 6 Author unknown. *Zermatt Waldschlitten Winter (2)* (Zermatt forest sled winter). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/iksCM](https://shorturl.at/iksCM)

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Fig. 16 Author unknown. Image reference: FB\_IMG\_1622700619953 "Growth in popularity of winter sports in Zermatt". Photograph. Sammlung Willisch Urs, Kulturweg Zermatt. Date unknown. [shorturl.at/eDFZ6](https://shorturl.at/eDFZ6)

Fig. 17 Author unknown. *Zermatt Heuen 1925 (2)*, (Zermatt Hay). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1925. [shorturl.at/iksCM](https://shorturl.at/iksCM)

Fig. 18 *Kulturwege Zermatt*. Logo. Verein Alts Zermatt. <https://www.kulturwege-zermatt.ch/>

Fig. 19 Author unknown. *Near Zermatt* (Hamlet with recycled construction materials). Record name: PK\_020033 Photograph. ETH-Bibliothek Zürich, Bildarchiv. 1915 - 1925. <https://doi.org/10.3932/ethz-a-001434798>

Fig. 20 Author unknown. *Täsch Mettelstadel Lastträger Kornspeicher 1* (Granary Barn in Täsch, men carrying load carrier beam). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. Date unknown. [shorturl.at/iksCM](https://shorturl.at/iksCM)

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Fig. 22 Author unknown. *Image reference: fii1* (One of the foundation's barns). Photograph. Jotka.ch. Date unknown. <https://www.jotka.ch/showroom/fiischer-stelli-chinderwaelt>

Fig. 23 Author unknown. *Image reference: fii2* (Inside one of the barns). Photograph. Jotka.ch. Date unknown. <https://www.jotka.ch/showroom/fiischer-stelli-chinderwaelt>

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Fig. 26 Author unknown. *Klau-Gädi*. Photograph. Kalu-Gädi - Romantischer Stadel, airbnb. Date unknown. [www.airbnb.com/rooms/26478875](https://www.airbnb.com/rooms/26478875)

Fig. 27 Author unknown. *Klau-Gädi interior*. Photograph. Kalu-Gädi - Romantischer Stadel, airbnb. Date unknown. [www.airbnb.com/rooms/26478875](https://www.airbnb.com/rooms/26478875)

Fig. 28 Author unknown. *Zermatt Wasserleite 1940*, (Zermatt Waterline 1940). Photograph. Sammlung Clemenz Bernhard, Kulturweg Zermatt. 1940. [shorturl.at/iksCM](https://shorturl.at/iksCM)

Fig. 29 Author unknown. *The First Train Arrives at the train station in Zermatt in July 1891. 1891*. Photograph. Zermatt.Ch.

<https://www.zermatt.ch/en/History/1891-Dedication-Visp-Zermatt-railway-line>.

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<https://www.kulturwege-zermatt.ch/dendrochronologie/>

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Fig. 53 Photo: Viktor Perren, Klaus Julen, Werner Bellwald. Graphics: Uwe Börst. *Today's building stock in Zmutt, dotted buildings have been removed*. 2020. Map. <https://www.kulturwege-zermatt.ch/weiler-zmutt/15-fazit/>

Fig. 54 Author unknown. *Image from 1930*. (Trail to the hamlet of Zmutt, from the bottom right to the top left). Federal Office of Topography. Date unknown. Swisstopo

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