Illustrated book

Imprint

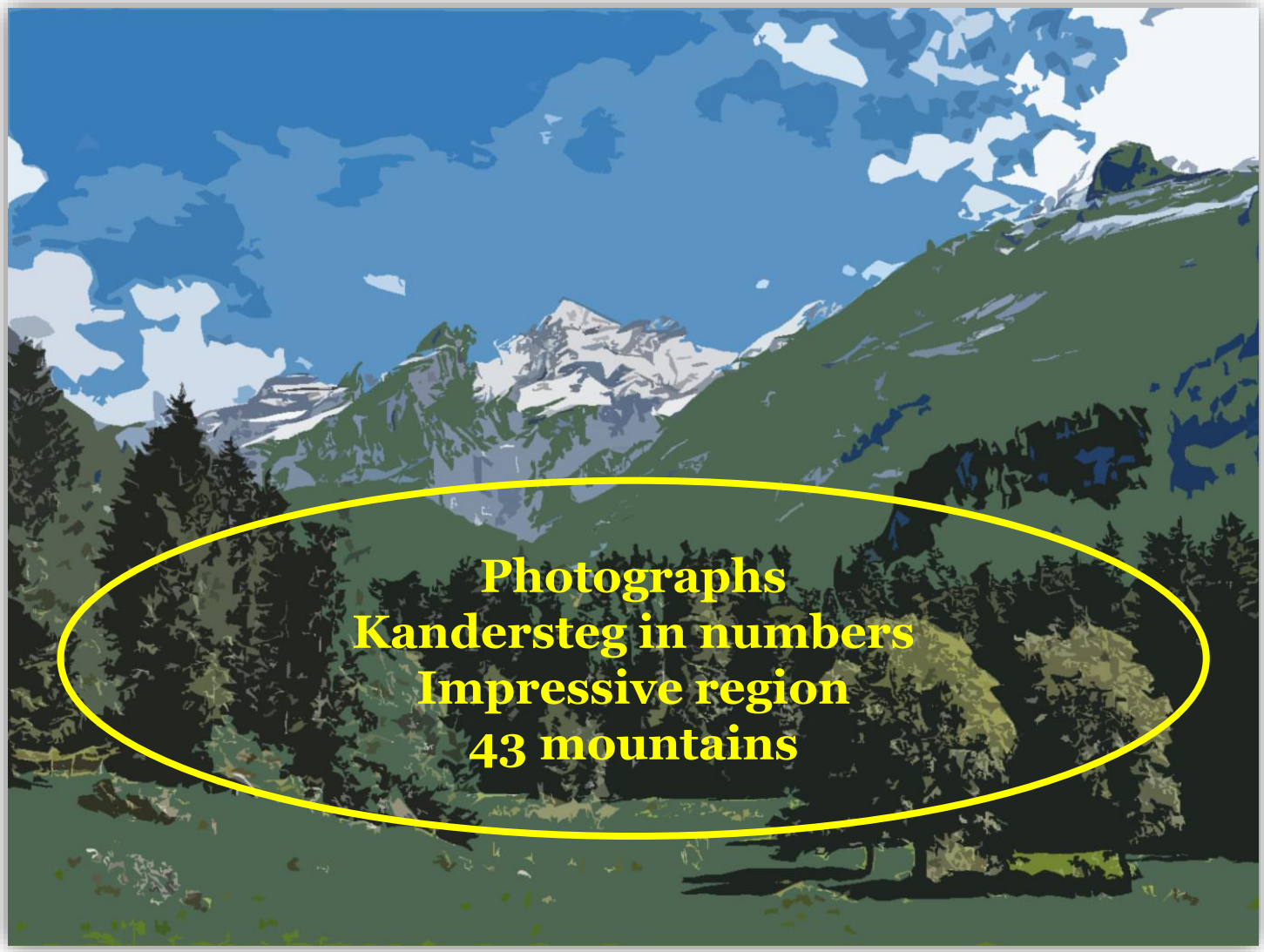
Print: kuhn drucksa.ch gmbh, Lenzburg

Information: Tourist Center Kandersteg
CH-3718 Kandersteg, www.kandersteg.ch

Lenzburg: Self-publishing. 2020.

The sources (numbered) are noted at the end of the book.

Introduction



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1

Photographs

All photographs are from Kandersteg region.

Various interpretations apply analogously to other places.

This street is dedicated to the most famous Kandersteger, Former Federal Councilor and Honorary Citizen, Dr. h. c. Adolf Ogi.

1 Blüemlisalphorn 3,661 m / 2 Bim spitze Stei 2,829 m

Kandersteg in numbers

Total area (fourth largest municipality in the canton of Bern)	*13,453 ha*
Settlement areas and traffic areas	*Rounded 120 ha*
Ecological areas	*Approximately 5,000 ha*
1 / The highest point: Balmhorn	*3,698 m*
Deepest point: Büel	*1,150 m*

Source: 1

Impressive region

You are cordially invited to a discovery trip to Kandersteg and become acquainted with the characteristics of all the four saisons as well as the village itself and its surroundings in higher areas.

Kandersteg is today well known for its 350 km hiking trails as well as its excellent 55 km cross-country ski trails.

Thanks to the numerous playgrounds, the children also have plenty to do.

It is no coincidence that the "Kandersteg International Scout Centre" (KISC), a meeting point for scouts from all over the world, has been here since 1923.

UNESCO World Heritage
Swiss Alps Jungfrau-Aletsch

The Kandersteg region is one of the most significant landscapes in Switzerland. This proves the fact that a considerable part of the municipal area is included in the UNESCO World Heritage "Swiss Alps Jungfrau-Aletsch".

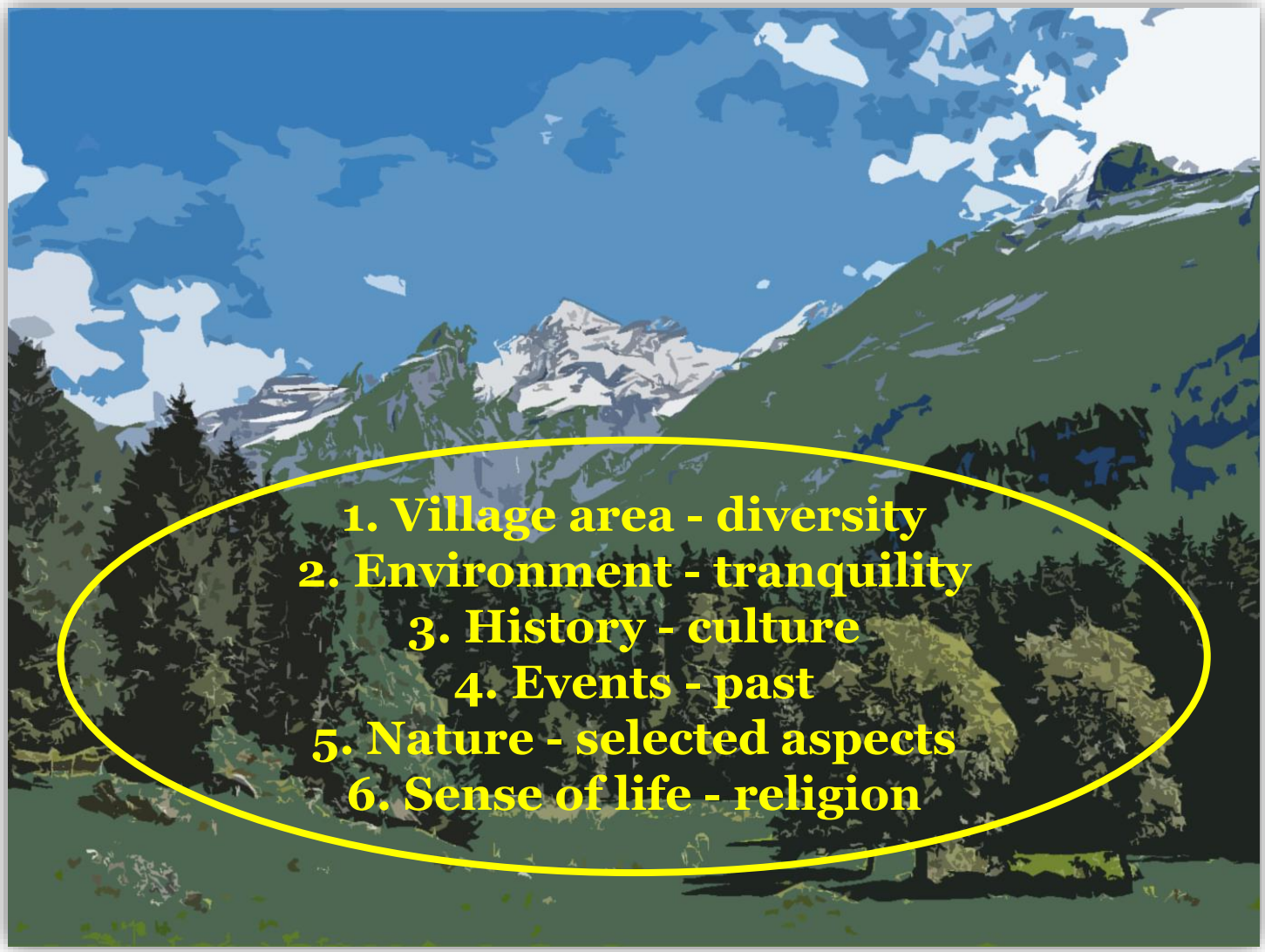
43 mountains

"You only see, what you know." *(Goethe)*

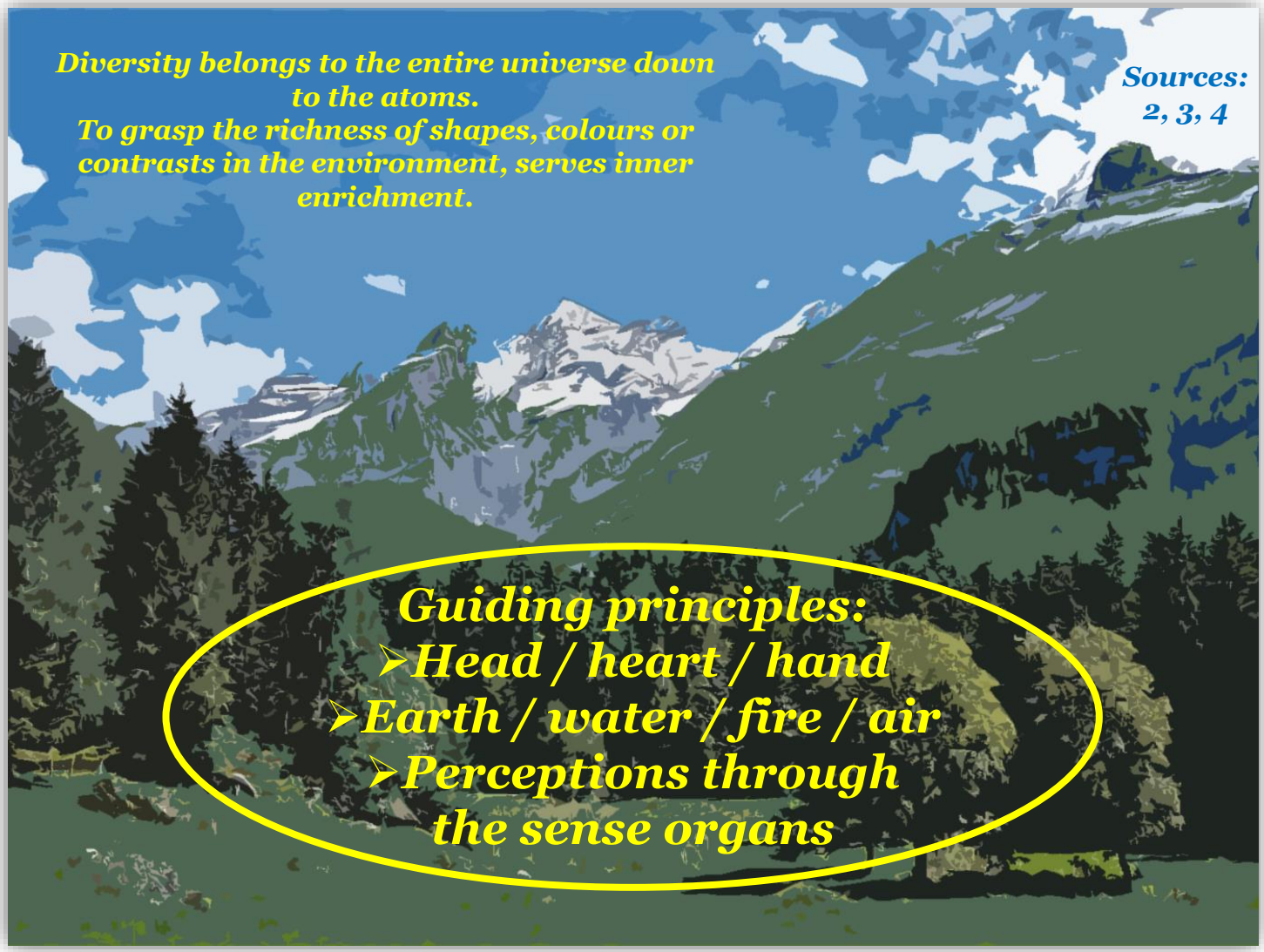
The wonderful mountains around Kandersteg are perceived more consciously, if you know them by name. Sequence: N→E→S→W→N

Mountains	Heights	Oberes Tatelishorn	2,962 m
Sattelhorn	2,376 m	Unteres Tatelishorn	2,497 m
Ärmighorn	2,742 m	Rinderhorn	3,448 m
Bire	2,502 m	Chli Rinderhorn	3,003 m
Zallershorn	2,743 m	Daubenhorn	2,942 m
Dündenhorn	2,862 m	Schwarzhorn	3,105 m
Wilde Frau	3,274 m	Roter Totz	2,848 m
Ufem Stock	3,221 m	Felsenhorn	2,782 m
Blüemlisalp-Rothorn	3,297 m	Gällihorn	2,284 m
Blüemlisalphorn	3,661 m	Steghorn	3,146 m
Wyssi Frau	3,648 m	Wildstrubel	3,244 m
Oeschinenhorn	3,486 m	Tschingellochtighorn	2,735 m
Fründenhorn	3,369 m	Gross Lohner	3,049 m
Bim spitze Stei	2,829 m	Chlyne Lohner	2,587 m
Doldenhorn	3,638 m	Alpschelehubel	2,248 m
Kleindoldenhorn	3,475 m	Bunderspitz	2,546 m
Doldenstock	3,232 m	First	2,549 m
Fisistöcke	2,946 m	Hohwang	2,519 m
Jegertosse	2,155 m	Stand	2,320 m
Hockenhorn	3,293 m	Golitschehöri	2,194 m
Balmhorn	3,698 m	Chilchhore	2,159 m
Altels	3,629 m	Elsighorn	2,341 m

Overview


1. Village area - diversity
2. Environment - tranquility
3. History - culture
4. Events - past
5. Nature - selected aspects
6. Sense of life - religion

1. Village area - diversity



According to Pestalozzi (1746-1827), the motto "head, heart and hand" plays an essential role in a balanced life.

In the opinion of the Greek philosopher Empedocles (5th century BC), all being in certain proportions consists of the four basic elements "earth, water, fire and air".

Likewise, our five sensory organs "ears, eyes, nose, tongue and skin" should serve a comprehensive sensation.

Head
Heart
Hand

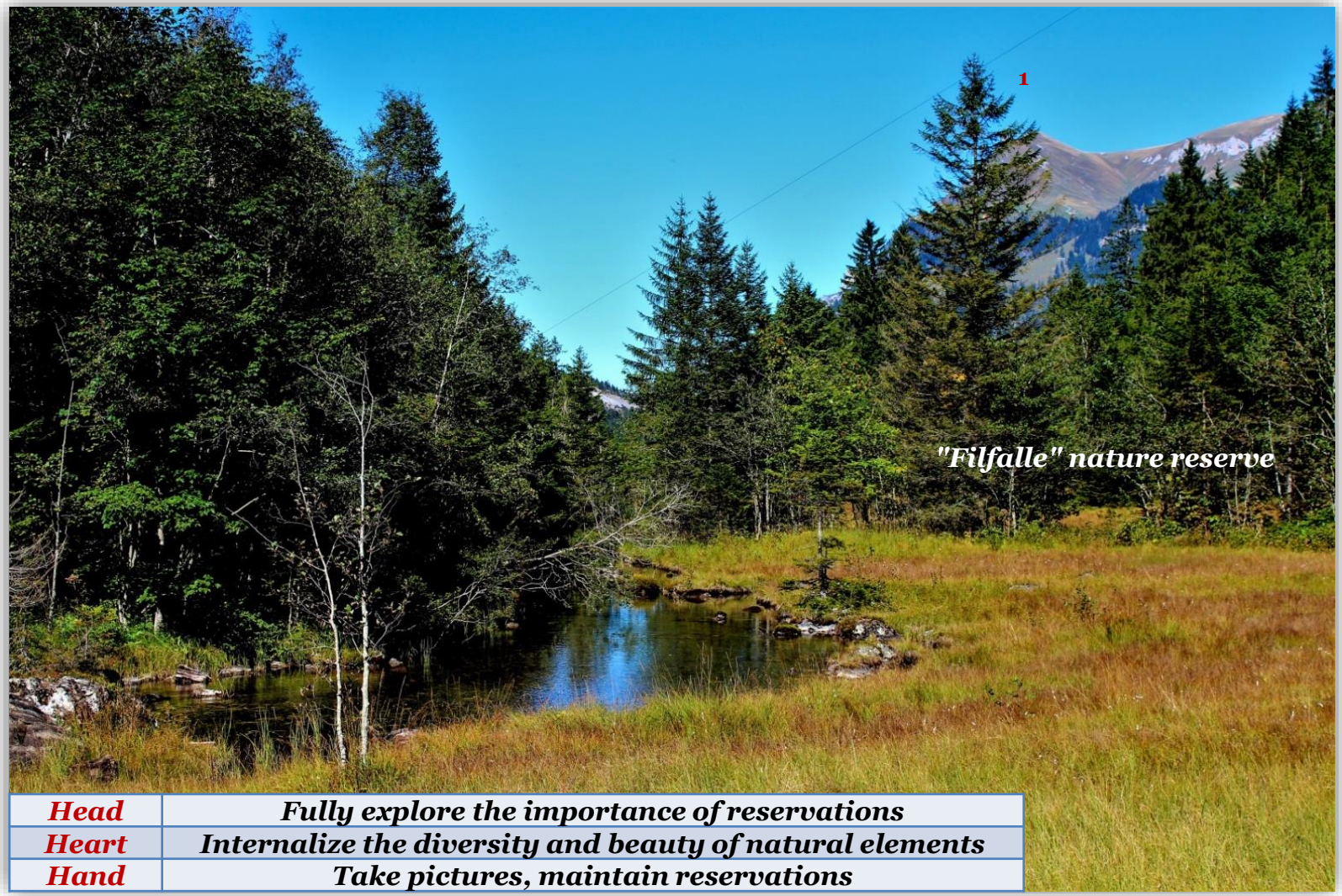
Selected examples

Head	***Deepen thoughts about becoming and decaying in nature***
Heart	***Let the beauty of the landscape and the warmth of the sun take effect***
Hand	***Physical activity such as hiking, cross-country skiing or building a snowman***

1 Chlyne Lohner 2,587 m
2 Bunderspitz 2,546 m
3 Allmenalp ± 1,800 m

At the nature children's playground

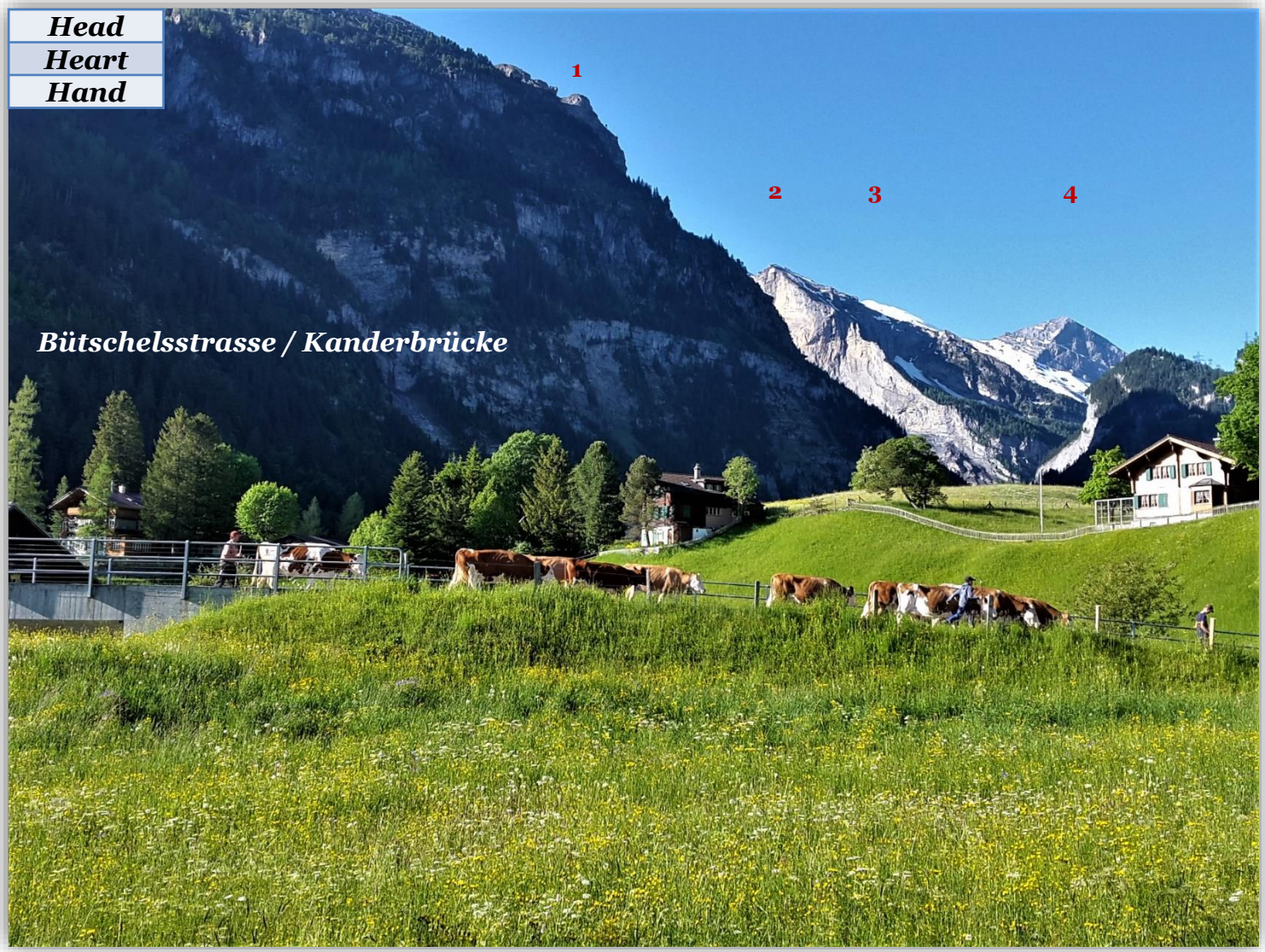
The following photographs can also be viewed in this way.



Head	*Fully explore the importance of reservations*
Heart	*Internalize the diversity and beauty of natural elements*
Hand	*Take pictures, maintain reservations*

1 Sattelhorn 2,376 m

1 Gross Lohner 3,049 m / 2 Alpschelehubel 2,248 m
3 Chlyne Lohner 2,587 m / 4 Bunderspitz 2,546 m / 5 Allmenalp ± 1,800 m



1 Jegertosse 2,155 m / 2 Unteres Tatelishorn 2,497 m
3 Rinderhorn 3,448 m / 4 Chli Rinderhorn 3,003 m

1 Sattelhorn 2,376 m / 2 Ärmighorn 2,742 m / Bire 2,502 m

Rock faces

Eggeschwand with a view towards Gasterntal/Gemmi

According to an idea by Christian Egger from Kandersteg, various "faces" can be seen in the rock walls.

"The Guardian of the Gasterntal" keeps a constant eye on the Gasternstrasse directly below.

More examples of "faces"

Bütschelsstrasse, view towards Allmenalp

"Faces" can also be seen here.

For example «Elephant face» or "Allmibach face"

At this point we would like to draw your attention to the "Gastern face":
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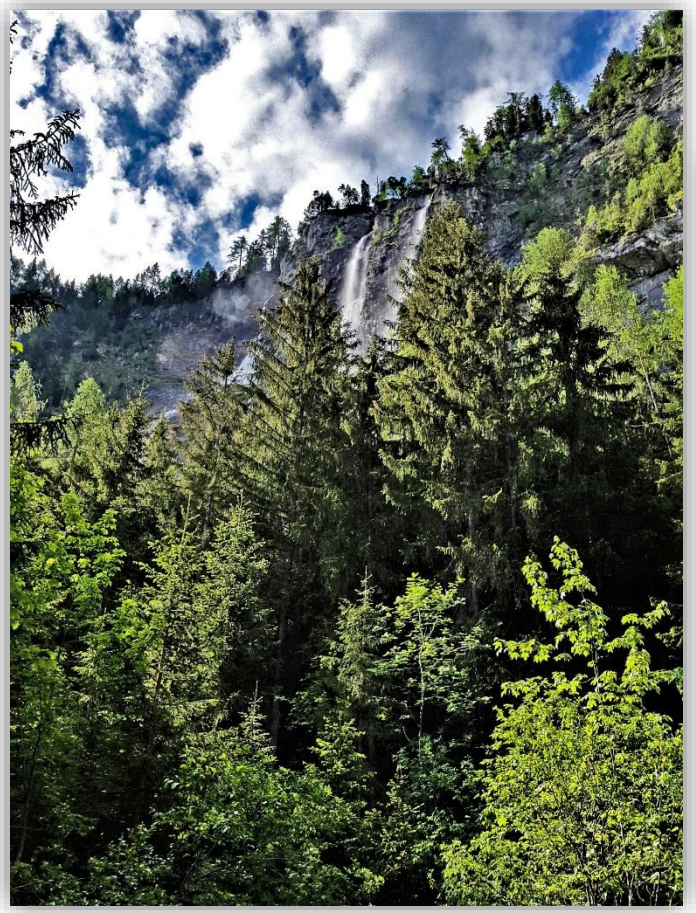
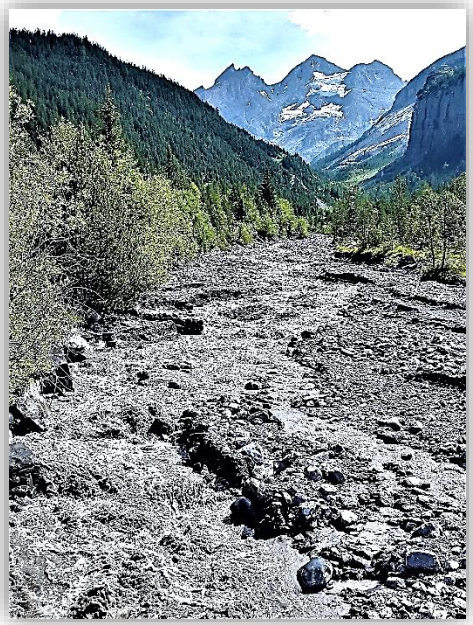
Diversity in the Öschiwald

Earth
Water
Fire
Air

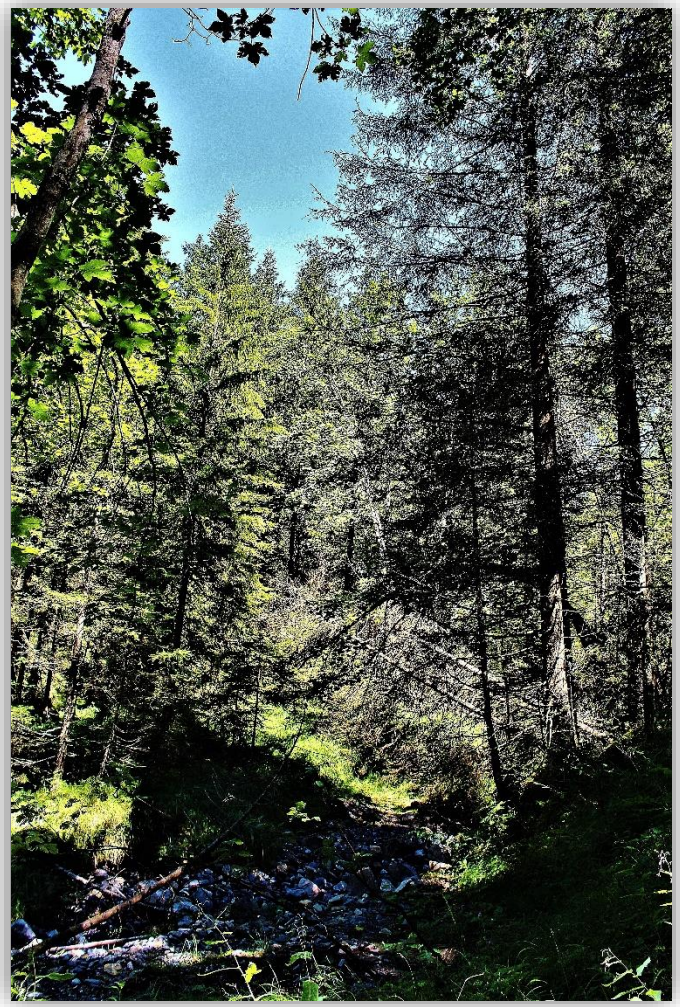


This motto is common
edited in school project weeks.



On the Oeschibach (water) various firepites invite you to grill.
Observations:
smoke and ash

Smoke arises when a mixture of liquid to gaseous and solid particles develops during combustion.



Earth
Water
Fire
Air

There is also a beautifully integrated Vita Parcours in the Öschiwald.

There is no complete combustion with an open fire. Ashes remain. This consists of black carbon and white minerals which explains the gray color. During rainfall (water) the minerals essentially dissolve and the carbon remains. The remains now appear black.

Earth
Water
Fire
Air

Example

1	*- Soil (earth) with water content as one of the foundations for plants (meadow, garden)* *- Air, renewed through photosynthesis of plants*
2	*- Water liquid (Kander to the left of the dam)* *- Water content in the soil (earth)*
3	*- Water solid (glacier, snow)* *- Melt water liquid*
4	*- Water gaseous (Humidity)* *- Fire of the sun (Light as the basis for photosynthesis)*
5	*- Fire (possibility of barbecue)* *- Water vapor in the air* *- Ashes for the soil (earth)*

Diversity at the Höh

The "Höh" area can be reached on foot from the village in a short time. It is all the more astonishing how rich and original it is.

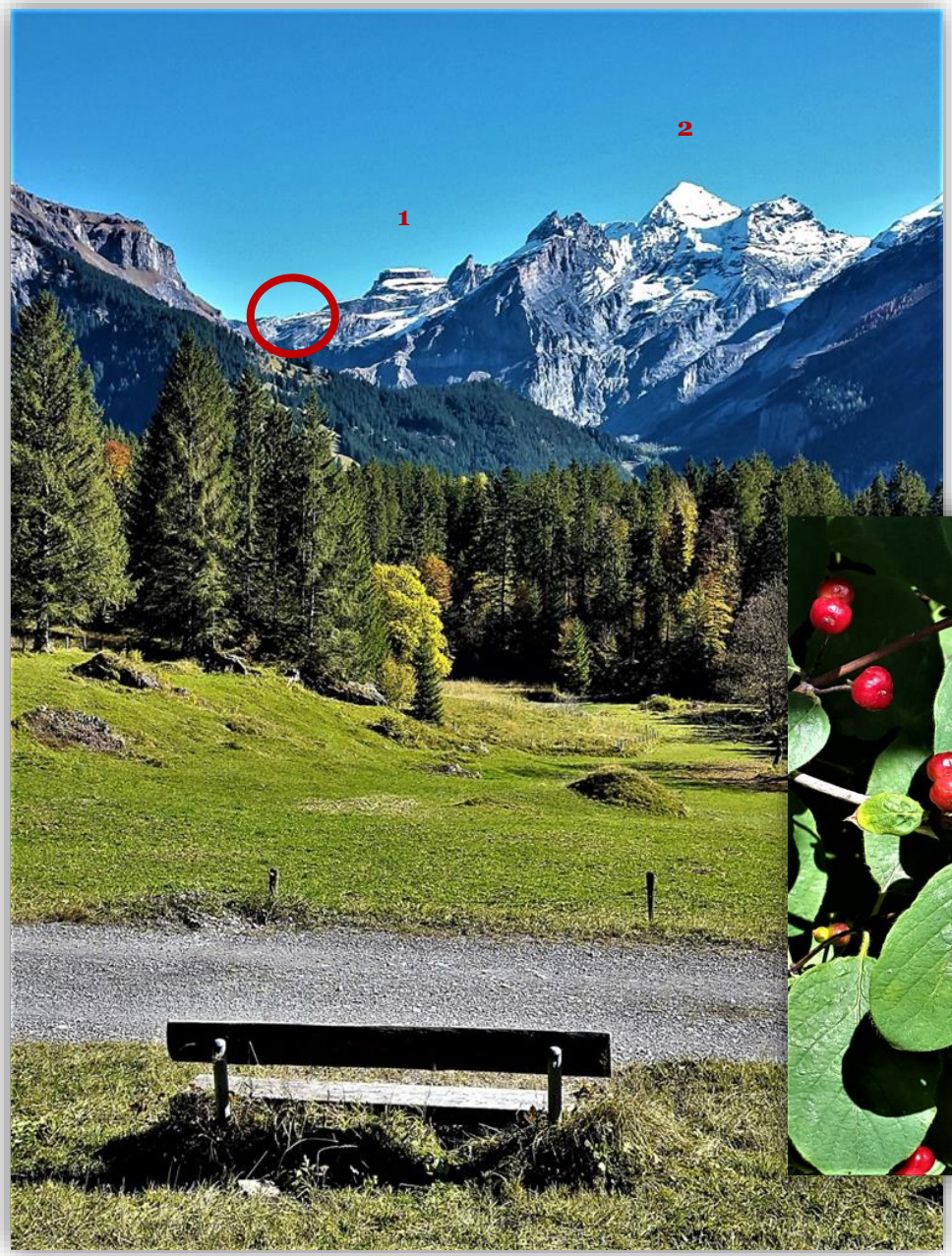
The present photographs are from southern areas of the Höhwald.

1 Blüemlisalphorn 3,661 m

The area "Bim spitze Stei" (3) has been under increased surveillance since summer 2018, because rock movements increase there. Measuring points enable continuous monitoring of this area.

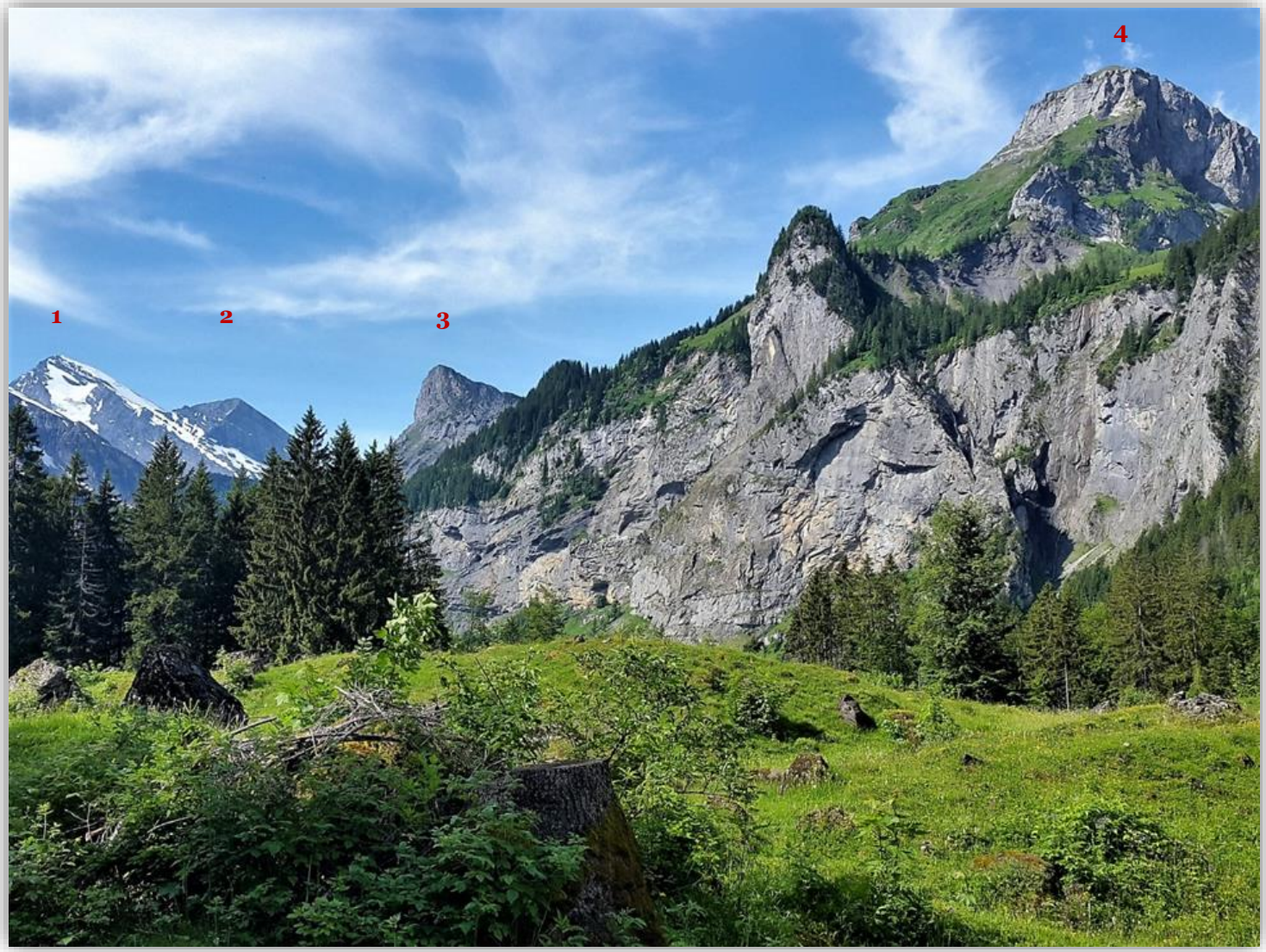
On December 20, 2019, at about 09.40 hrs, the summit "Bim spitze Stei" broke off.

1 Wilde Frau 3,274 m / 2 Blüemlisalphorn 3,661 m
3 Bim spitze Stei 2,829 m / 4 Kleindoldenhorn 3,475 m, before that 5 Doldenstock 3,232 m
◯ Doldenhornhütte SAC 1,915 m



1 Wilde Frau 3,274 m
2 Blüemlisalphorn 3,661 m
Blüemlisalphütte SAC 2,840 m

1 Balmhorn 3,698 m / 2 Altels 3,629 m
3 Rinderhorn 3,448 m / 4 Chli Rinderhorn 3,003 m / 5 Gällihorn 2,284 m



1 Rinderhorn 3,448 m / 2 Chli Rinderhorn 3,003 m
3 Gällihorn 2,284 m / 4 Alpschelehubel 2,248 m

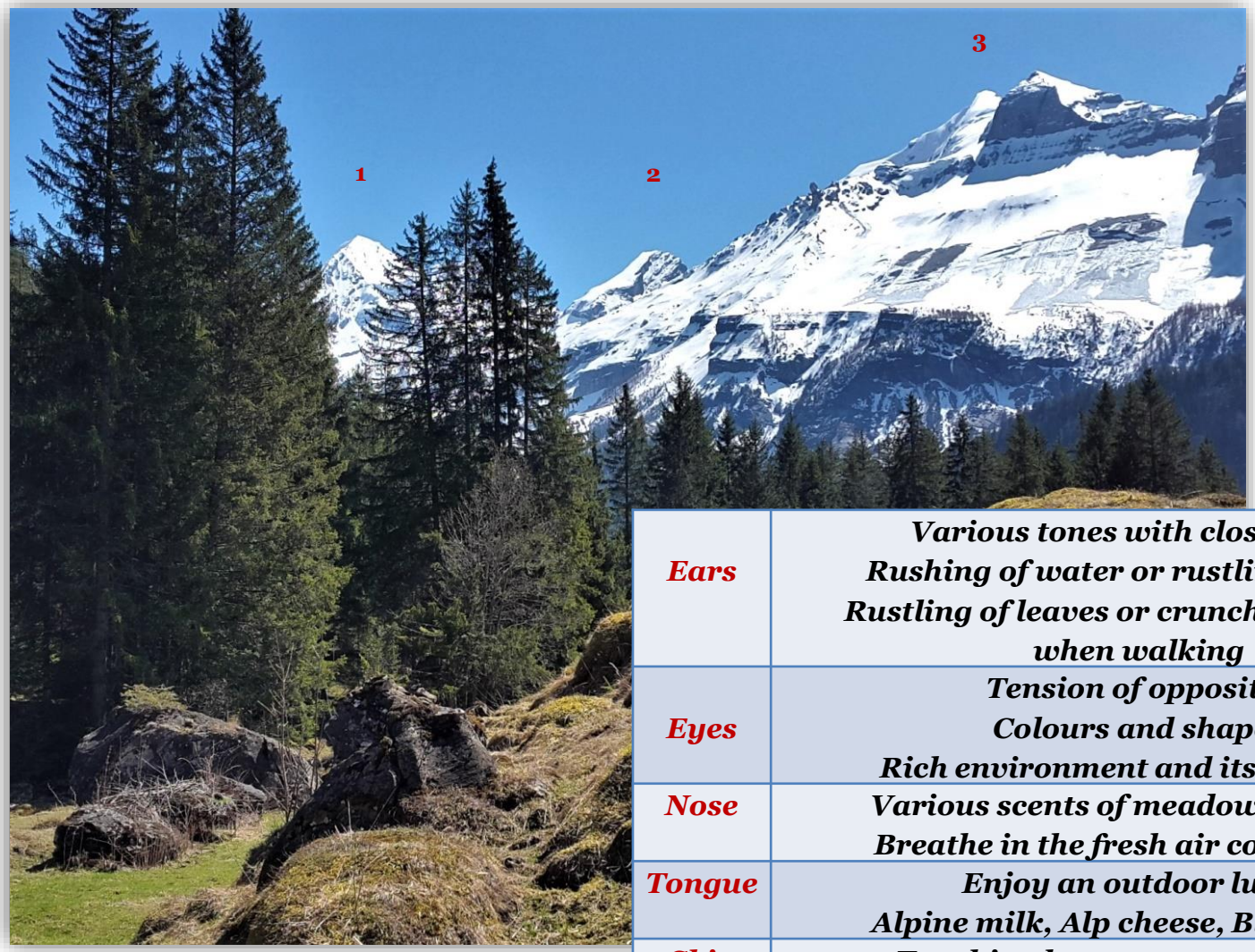
Opposites

A conscious perception of opposites enriches our feelings.

Examples

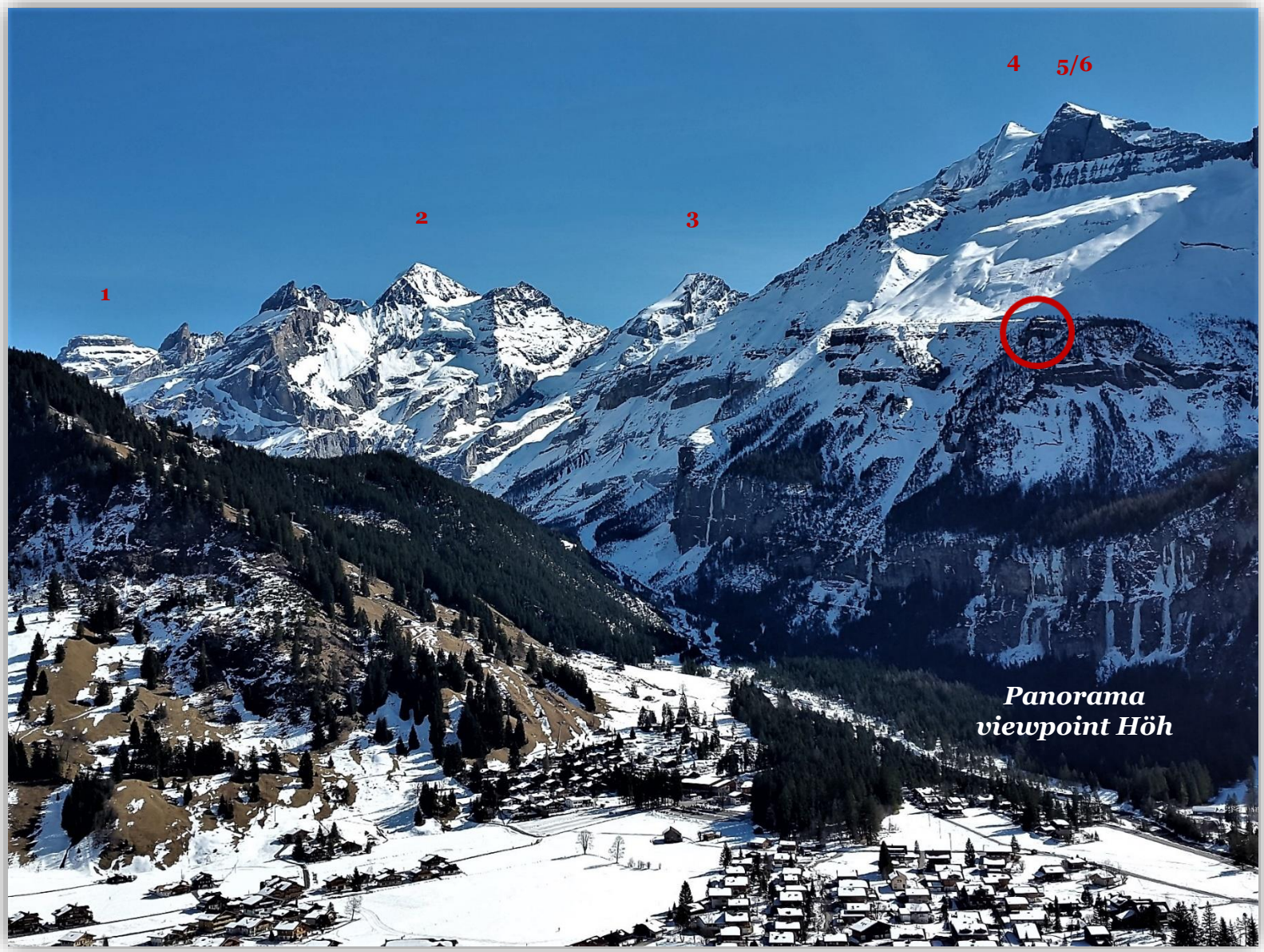
Plants	***Animals***	***Man***
Earth	***Water***	***Air***
Black	***Coloured***	***White***

Perceive nature with as many senses as possible



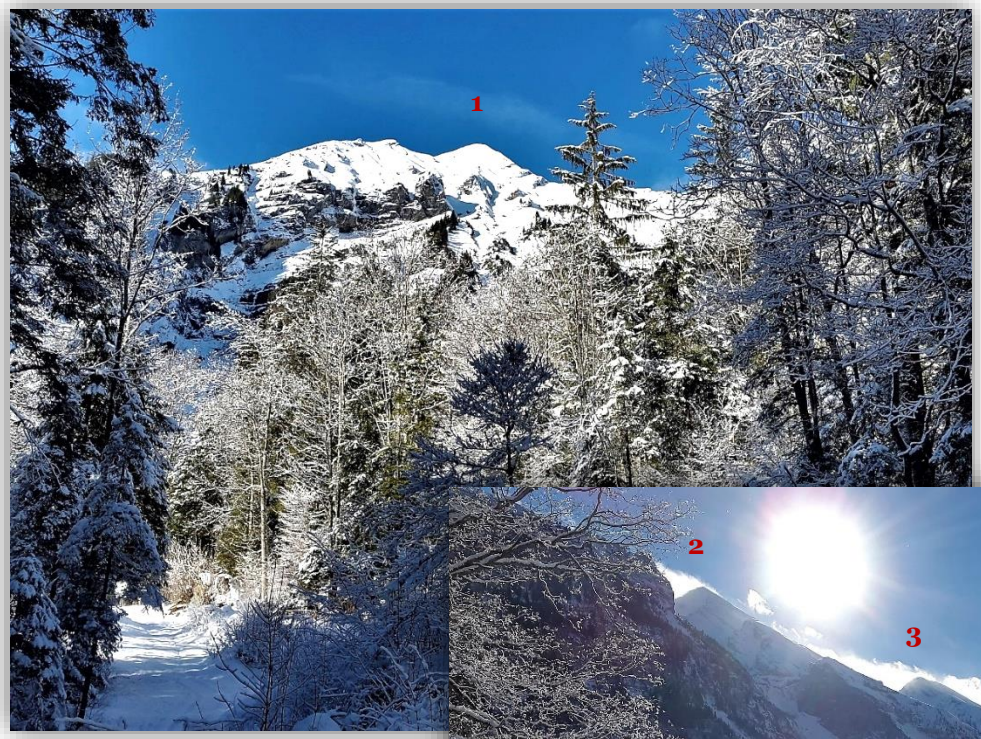
1 Blüemlisalphorn 3,661 m
2 Fründenhorn 3,369 m
3 Doldenhorn 3,638 m

Ears	***Various tones with closed eyes*** ***Rushing of water or rustling of wind*** ***Rustling of leaves or crunching of snow when walking***
Eyes	***Tension of opposites*** ***Colours and shapes*** ***Rich environment and its elements***
Nose	***Various scents of meadows or herbs*** ***Breathe in the fresh air consciously***
Tongue	***Enjoy an outdoor lunch*** ***Alpine milk, Alp cheese, Blueberries***
Skin	***Touching leaves, stems or stones*** ***Feel the ground when walking***



1 Wilde Frau 3,274 m / 2 Blüemlisalphorn 3,661 m / 3 Fründenhorn 3,369 m
4 Doldenhorn 3,638 m / 5 Kleindoldenhorn 3,475 m, before that 6 Doldenstock 3,232 m
○ Doldenhornhütte SAC 1,915 m

Winter Impressions at the Höh



1 First 2,549 m
2 Altels 3,629 m
3 Rinderhorn 3,448 m

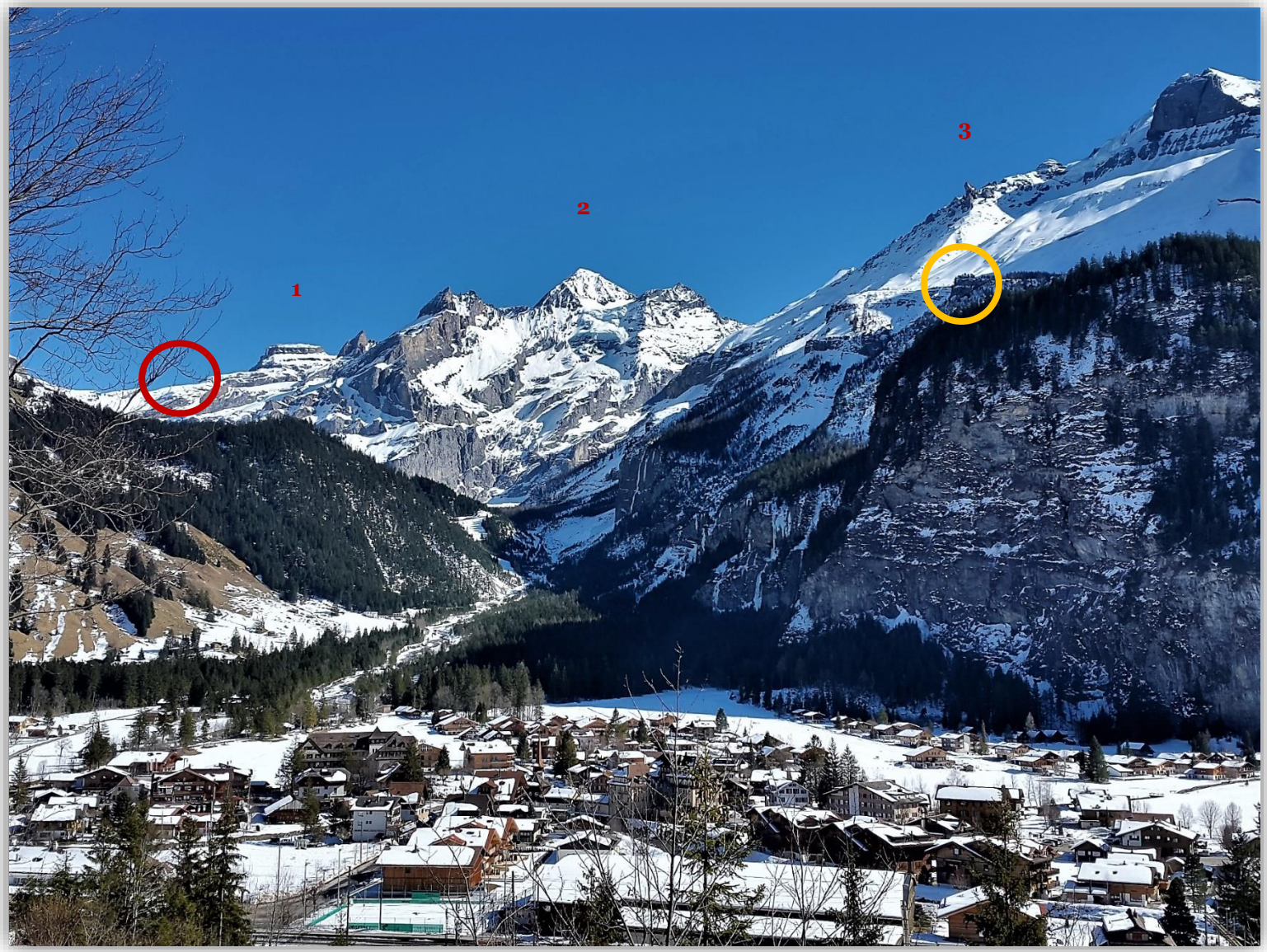
1 Rinderhorn 3,448 m
2 Blüemlisalphorn 3,661 m

1 Altels 3,629 m / 2 Rinderhorn 3,448 m / 3 Chli Rinderhorn 3,003 m / 4 Gällihorn 2,284 m

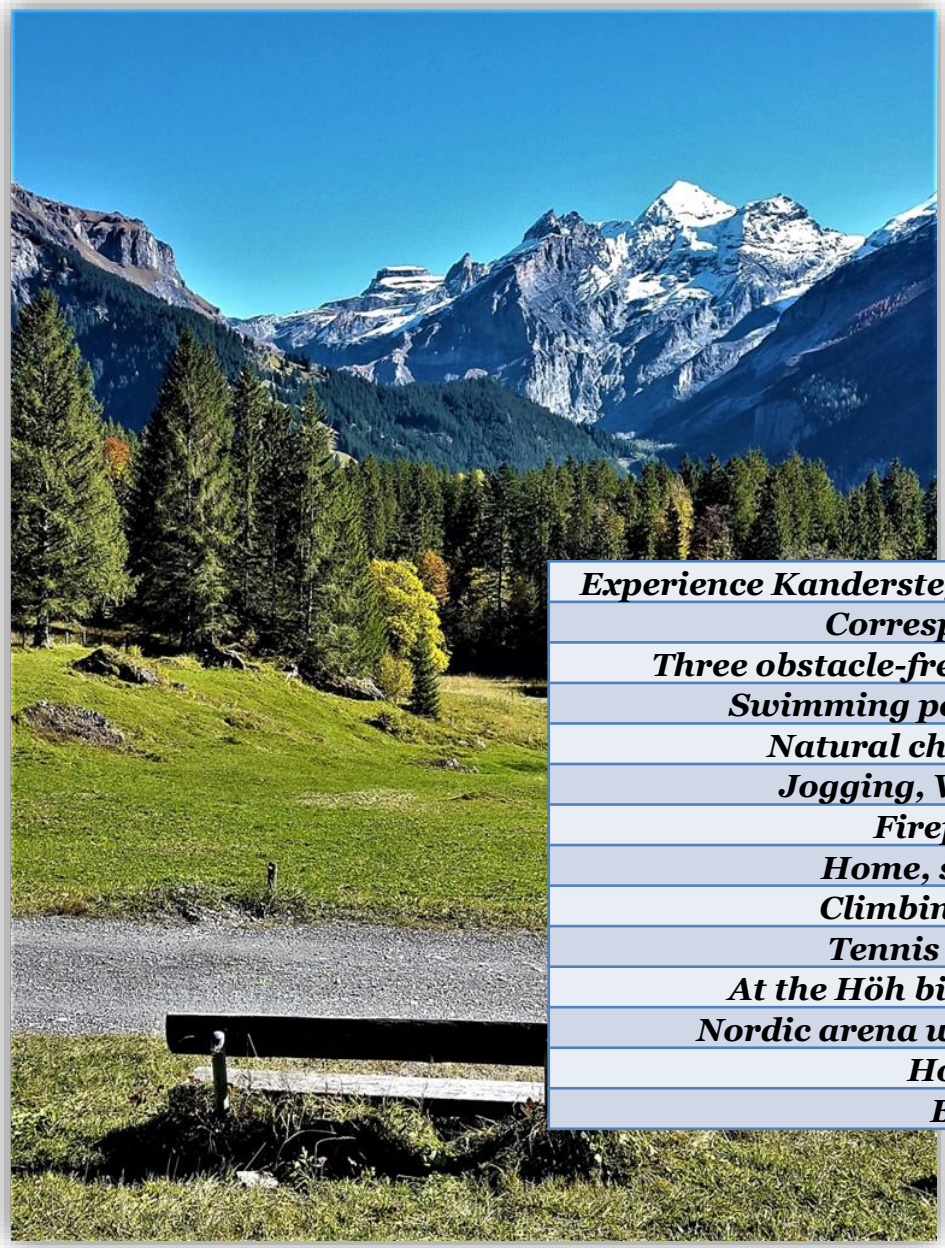
1 Blüemlisalphorn 3,661 m
2 Fründenhorn 3,369 m
3 Doldenhorn 3,638 m
Doldenhornhütte SAC 1,915 m

1 Bim spitze Stei 2,829 m / 2 Kleindoldenhorn 3,475 m, before that 3 Doldenstock 3,232 m / 4 Fisistöcke 2,946 m

1 Altels 3,629 m / 2 Rinderhorn 3,448 m / 3 Chli Rinderhorn 3,003 m / 4 Gällihorn 2,284 m

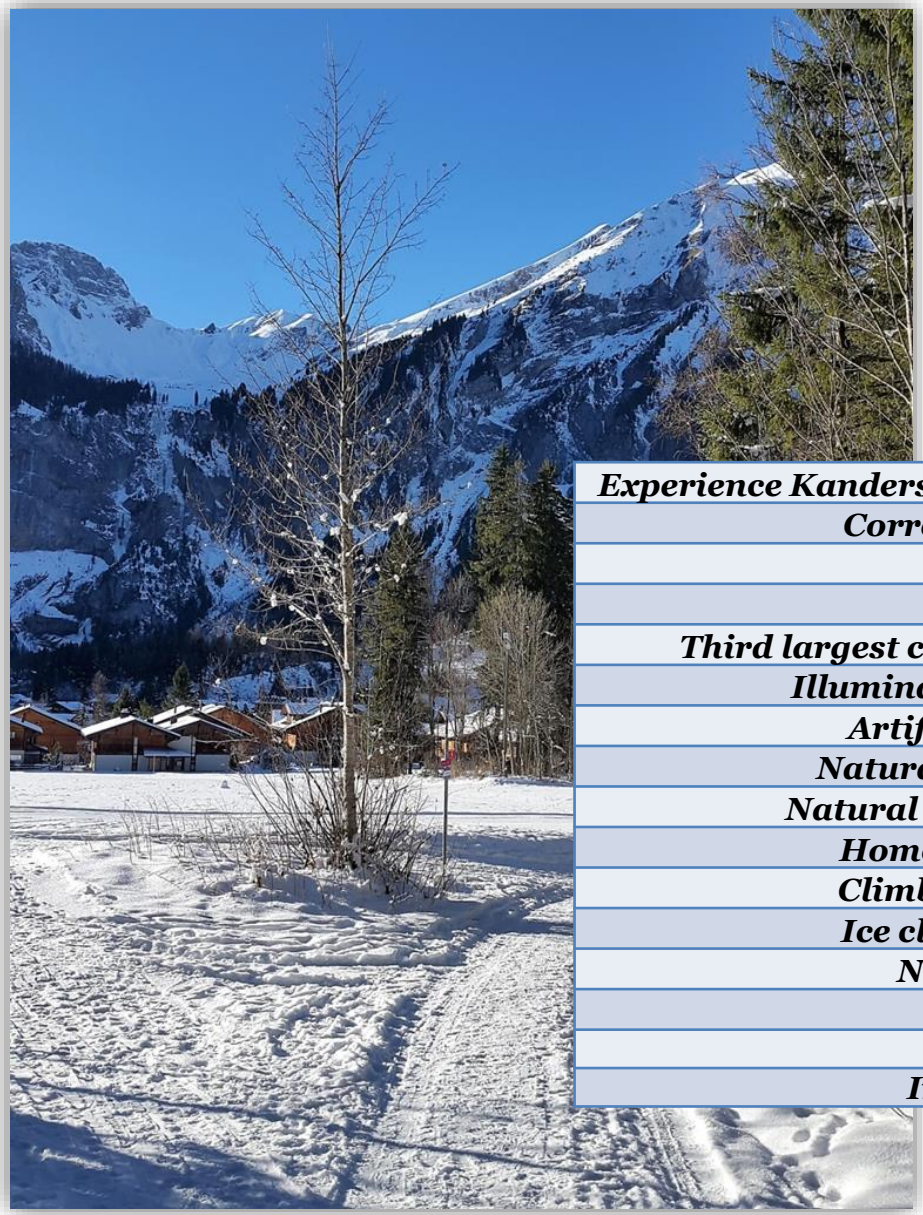


1 Wilde Frau 3,274 m / 2 Blüemlisalphorn 3,661 m / 3 Bim spitze Stei 2,829 m
○ Blüemlisalphütte SAC 2,840 m / ○ Doldenhornhütte SAC 1,915 m



Activities village area Summer

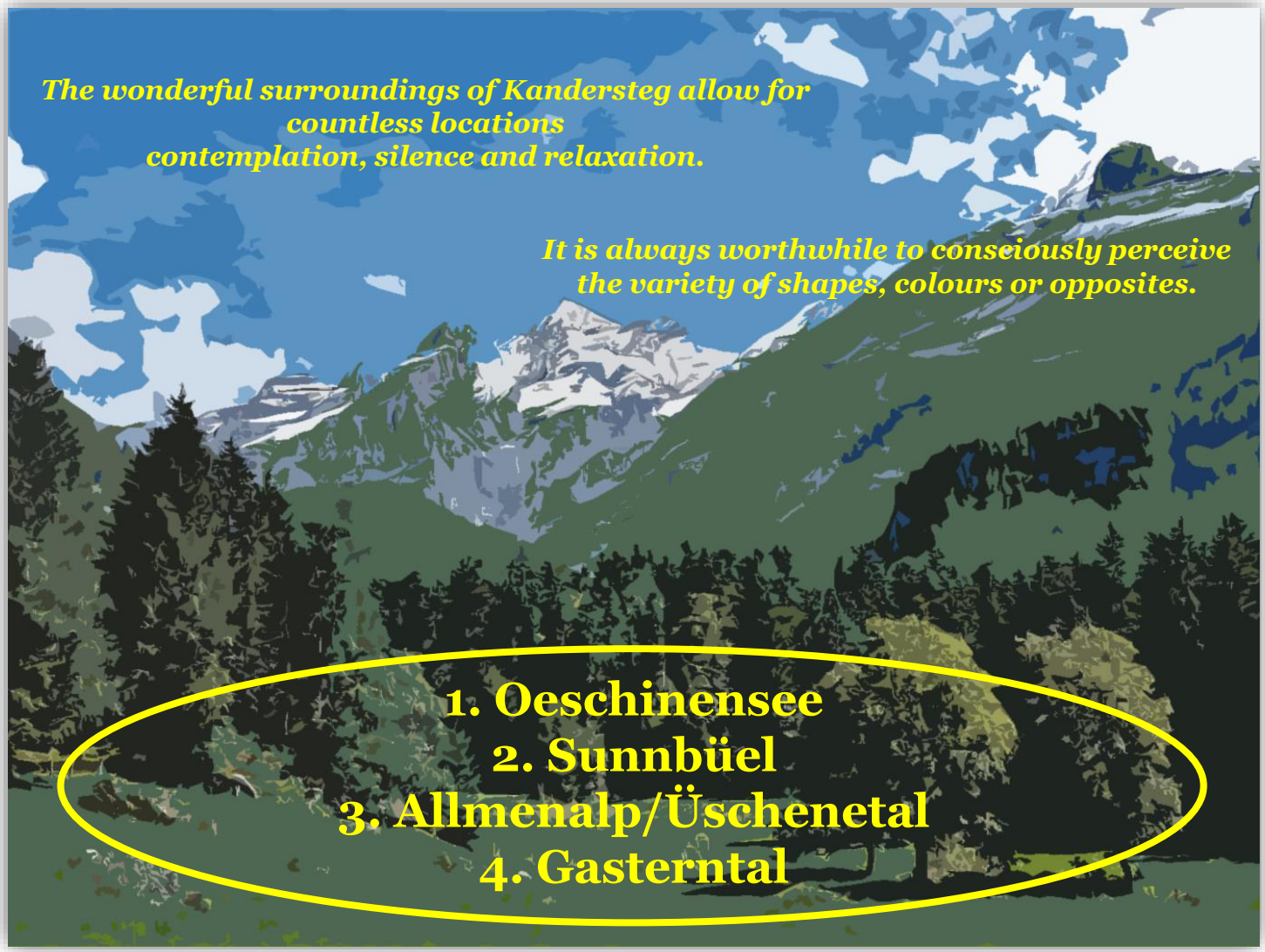
Experience Kandersteg 2013 - circular hiking trails in the village
Corresponding children's program
Three obstacle-free, wheelchair-friendly circular routes
Swimming pool and play pool, heated to 26 ° C
Natural children's playground Öschiwald
Jogging, Vita Parcours in the Öschiwald
Fireplaces on the Oeschibach
Home, scout and cable car museum
Climbing hall near the train station
Tennis court near the train station
At the Höh biking, bouldering, Nordic walking
Nordic arena with ski jumps and mountain tubing
Horse and carriage rides
Belle Epoque weekend



Activities village area Winter

Experience Kandersteg 2013 - circular hiking trails in the village
Corresponding children's program
Winter hiking trails
Snowshoeing
Third largest cross-country skiing area in Switzerland
Illuminated night trail and toboggan run
Artificial ice rink with curling hall
Natural ice field near the train station
Natural children's playground Öschiwald
Home, scout and cable car museum
Climbing hall near the train station
Ice climbing towards Oeschinensee
Nordic arena with ski jumps
Sleigh rides
Belle Epoque week
International sled dog race

2. Environment - tranquility



1. Oeschinensee

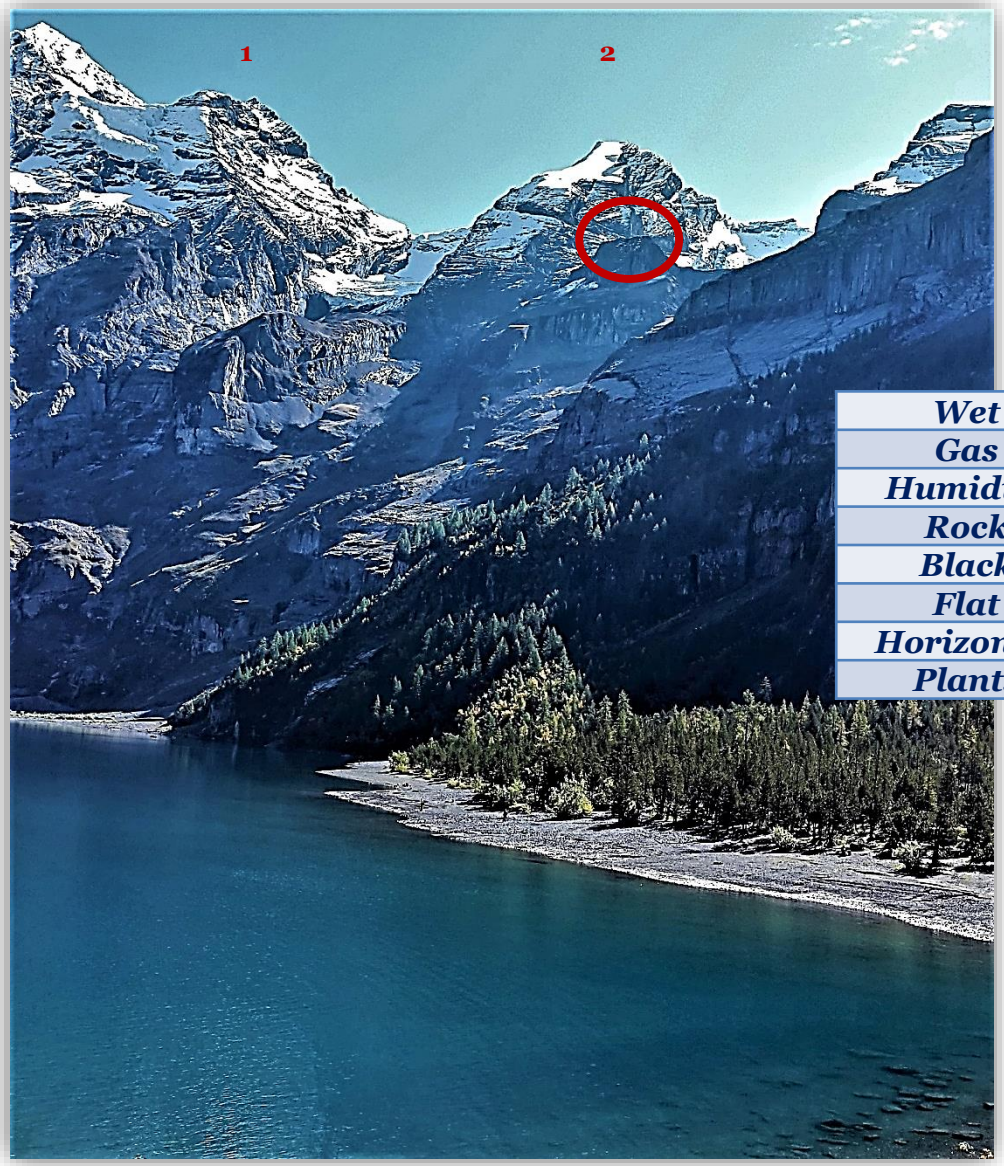
1	Wilde Frau	3,274 m
2	Ufem Stock	3,221 m
3	Blüemlisalp-Rothorn	3,297 m
4	Blüemlisalphorn	3,661 m
5	Oeschinenhorn	3,486 m
6	Fründenhorn	3,369 m

1	Schwarzhorn	3,105 m
2	Roter Totz	2,848 m
3	Felsenhorn	2,782 m
4	Steghorn	3,146 m
5	Wilstrubel	3,244 m
6	Tschingellochtighorn	2,735 m
7	Gross Lohner	3,049 m
8	Chlyne Lohner	2,587 m

At the mountain station of the gondola lift Kandersteg-Oeschinensee / Southwestern view

1 Blüemlisalp-Rothorn 3,297 m / 2 Blüemlisalphorn 3,661 m
3 Oeschinenhorn 3,486 m / 4 Fründenhorn 3,369 m / 5 Oeschinensee 1,578 m

Oeschinensee - world of contrasts



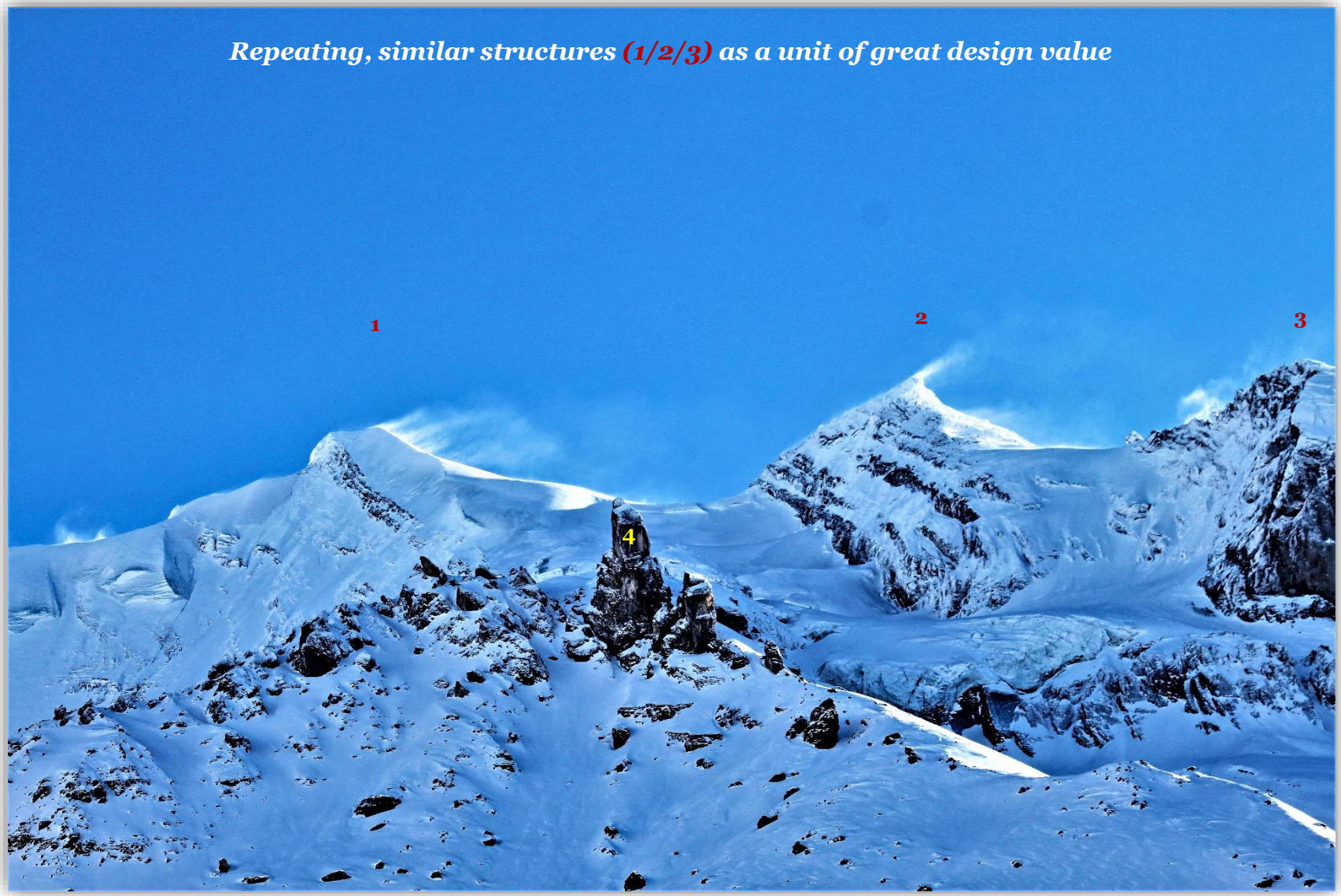
A selection

Wet	***Humid***	***Dry***
Gas	***Liquid***	***Solid***
Humidity	***Seawater***	***Glacier***
Rock	***Boulders***	***Gravel***
Black	***Coloured***	***White***
Flat	***Hilly***	***Mountainous***
Horizontal	***Steep***	***Perpendicular***
Plants	***Animals***	***Man***

1 Oeschinenhorn 3,486 m
2 Fründenhorn 3,369 m
◯ Fründenhütte SAC 2,562 m

1 First 2,549 m / 2 Hohwang 2,519 m / 3 Stand 2,320 m
4 Golitschehöri 2,194 m / 5 Chilchhore 2,159 m / 6 Elsighorn 2,341 m

Activities Oeschinen Summer	*Hiking area, Nordic walking*
	Summer toboggan run at the mountain station
	Boat rental at the lake
	Firepits by the lake
	Mountain tours
	Fishing



Ski area Oeschinen / Southern view

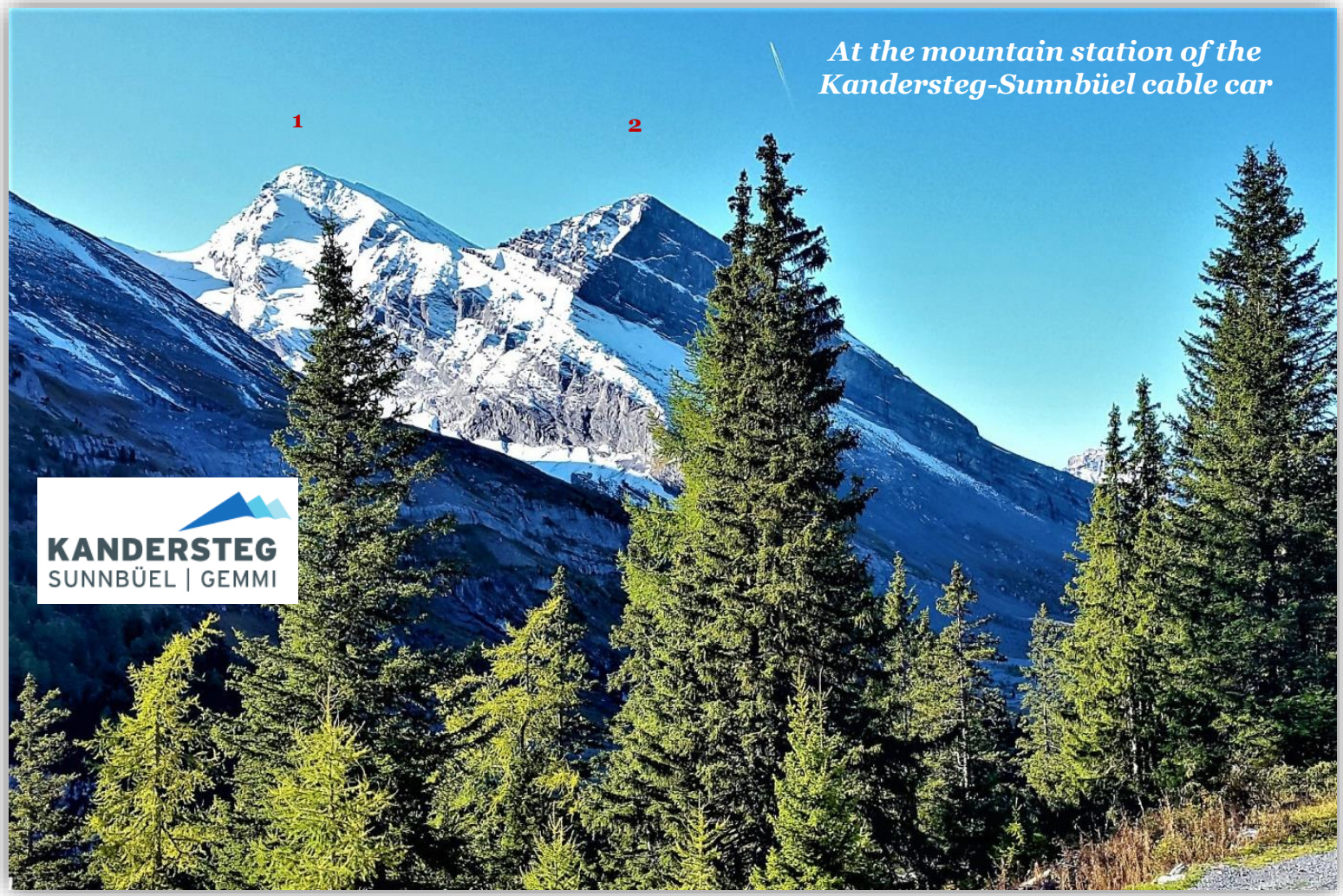
1 Doldenhorn 3,638 m / 2 Kleindoldenhorn 3,475 m / 3 Doldenstock 3,232 m / 4 Bim spitze Stei 2,829 m

Activities
Oeschinen
Winter

Ski and snowboard area with valley run
Hiking, Snowshoeing
Ice Walks on Oeschinensee
Toboggan run to the valley station of the gondola lift
Paragliding
Fishing

1 Wilde Frau 3,274 m
2 Ufem Stock 3,221 m

2. Sunnbüel



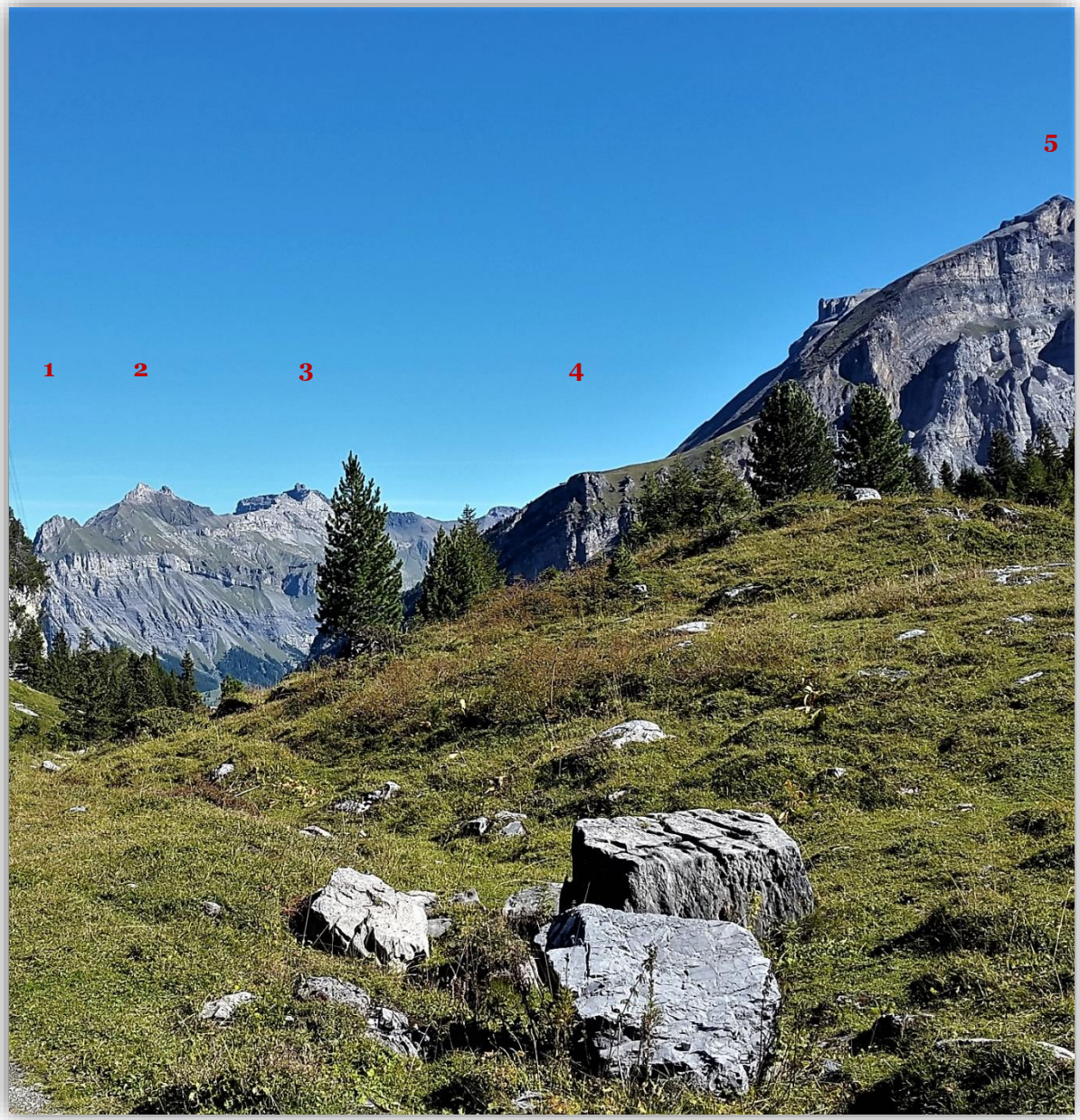
1 Rinderhorn 3,448 m
2 Chli Rinderhorn 3,003 m

These two mountains belong to the Bernese Alps, but are in the municipality of Leukerbad, in the canton of Valais.

In 1252 the word "Gemmipass" appears for the first time.

However, this path already enabled the Romans the crossing of the Alps from Valais to the Bernese Oberland.

1 Daubenhorn 2,942 m / 2 Schwarzhorn 3,105 m
3 Roter Totz 2,848 m / 4 Felsenhorn 2,782 m / 5 Üschenegrat ± 2,300 m



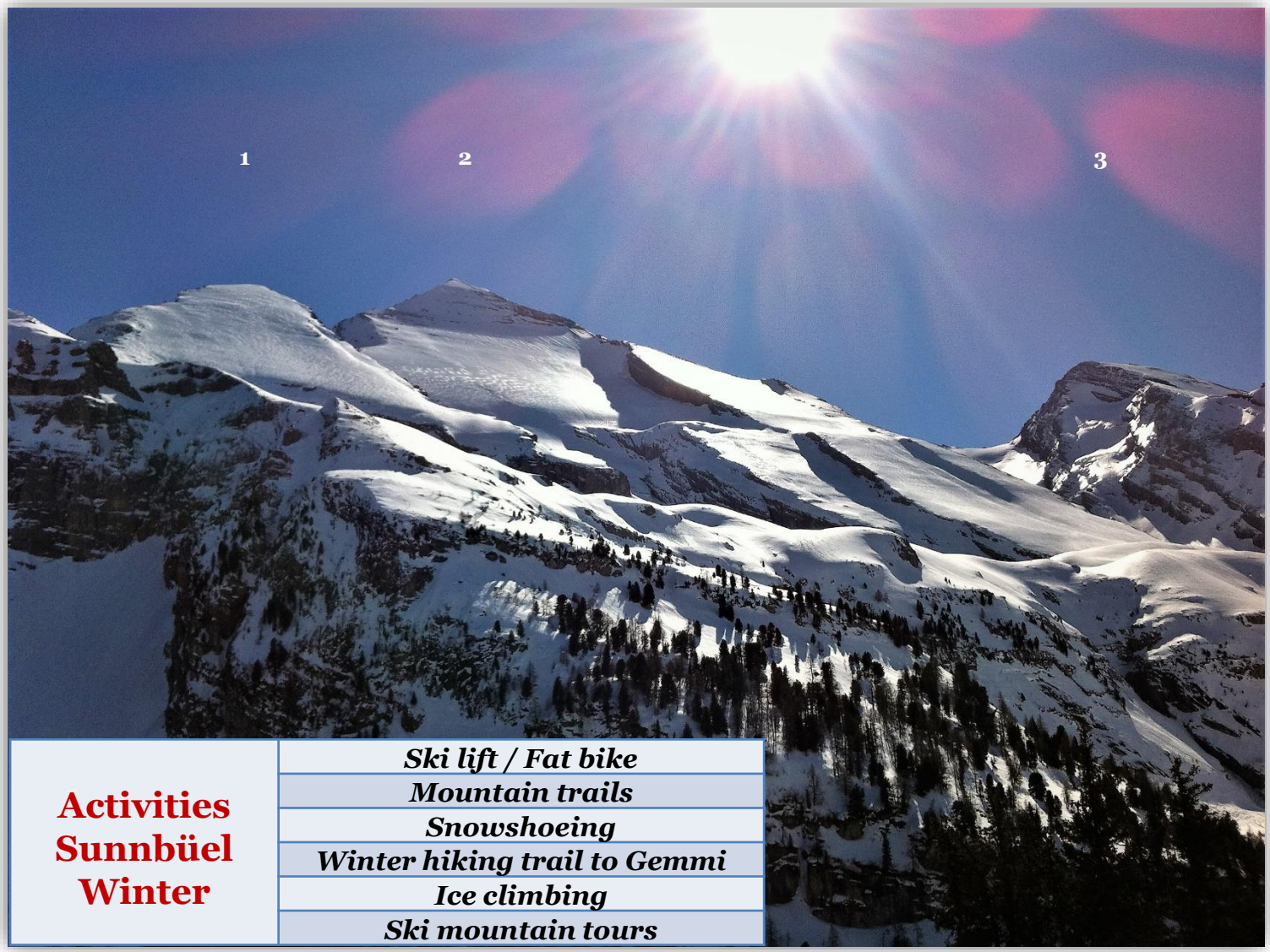
1 Bire 2,502 m
2 Zallershorn 2,743 m
3 Dündenhorn 2,862 m
4 Jegertosse 2,155 m
5 Fisistöcke 2,946 m

View below the Sunnbüel mountain station in a northeasterly direction

Gemmiweg towards Sunnbüel

Activities Sunnbüel Summer	
	Hiking area, Nordic walking
	Climbing areas
	Biking
	Freeride trail Sunnbüel-Kandersteg
	Mountain tours

1 Fisistöcke 2,946 m / 2 Doldenstock 3,232 m / 3 Kleindoldenhorn 3,475 m / 4 Doldenhorn 3,638 m

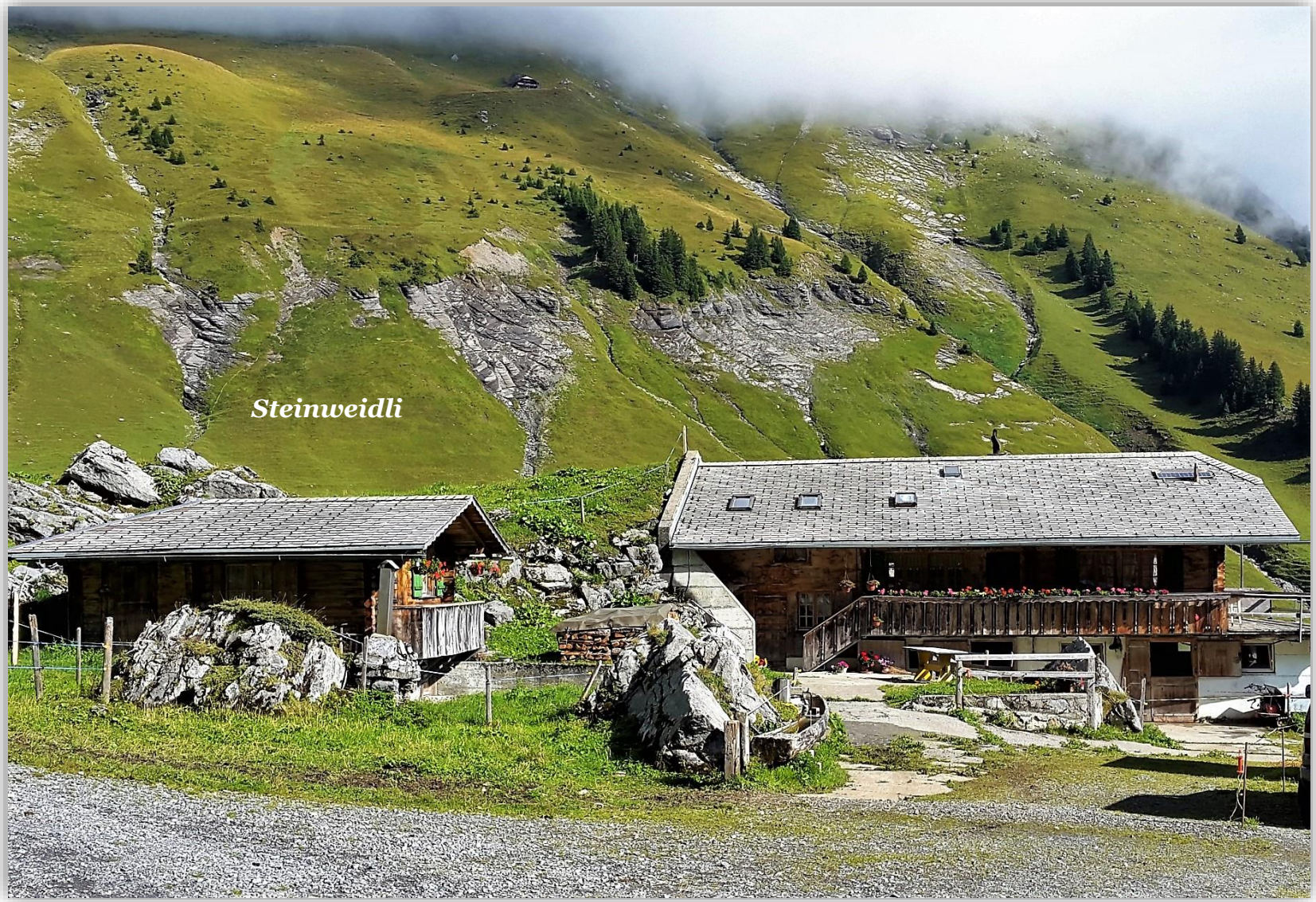


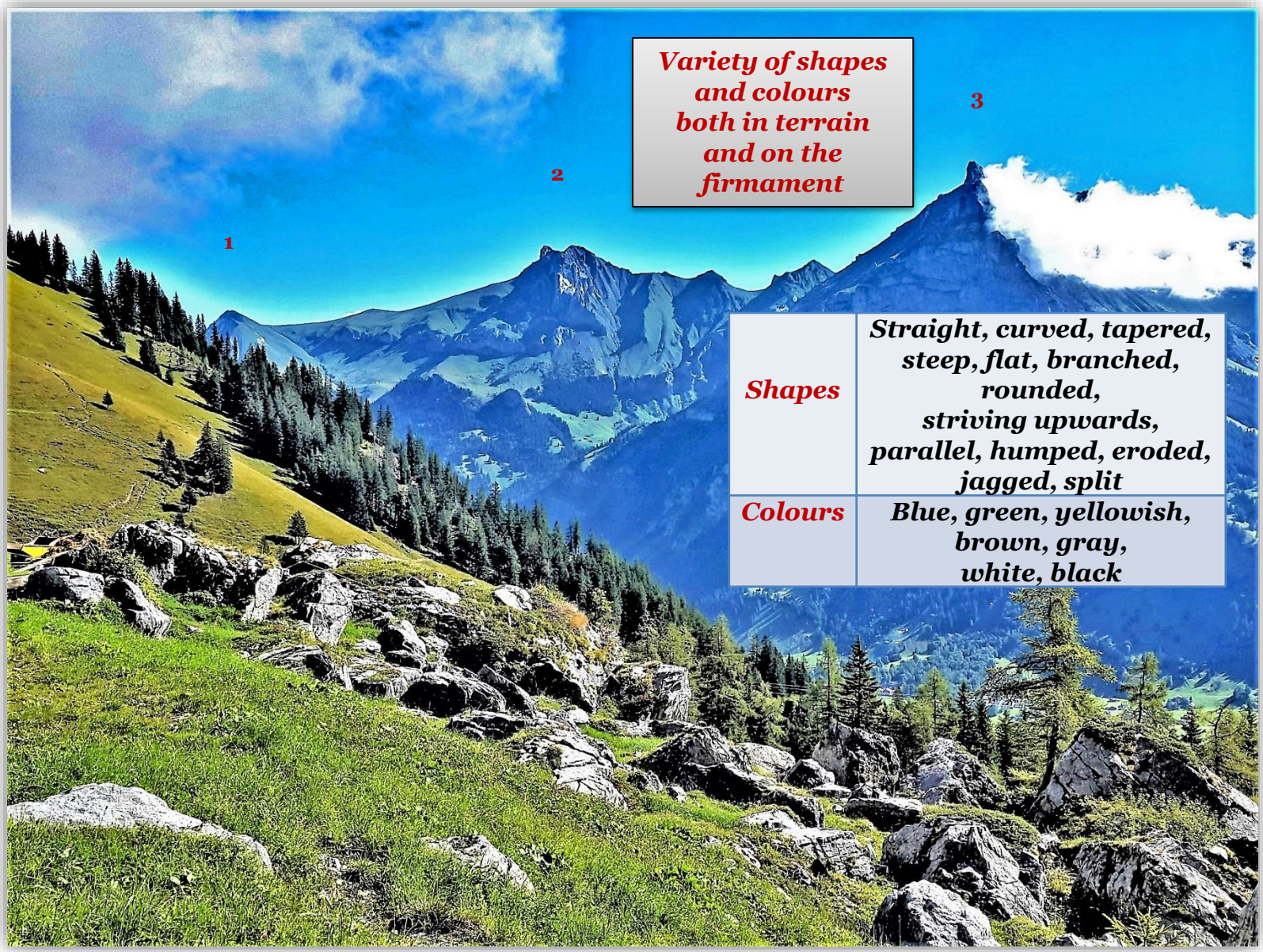
Activities Sunnbüel Winter	
	Ski lift / Fat bike
	Mountain trails
	Snowshoeing
	Winter hiking trail to Gemmi
	Ice climbing
	Ski mountain tours

1 Oberes Tatelishorn 2,962 m / 2 Altels 3,629 m / 3 Rinderhorn 3,448 m

3. Allmenalp-Üschenetal

1 Chlyne Lohner 2,587 m / 2 Bunderspitz 2,546 m


Steinweidli

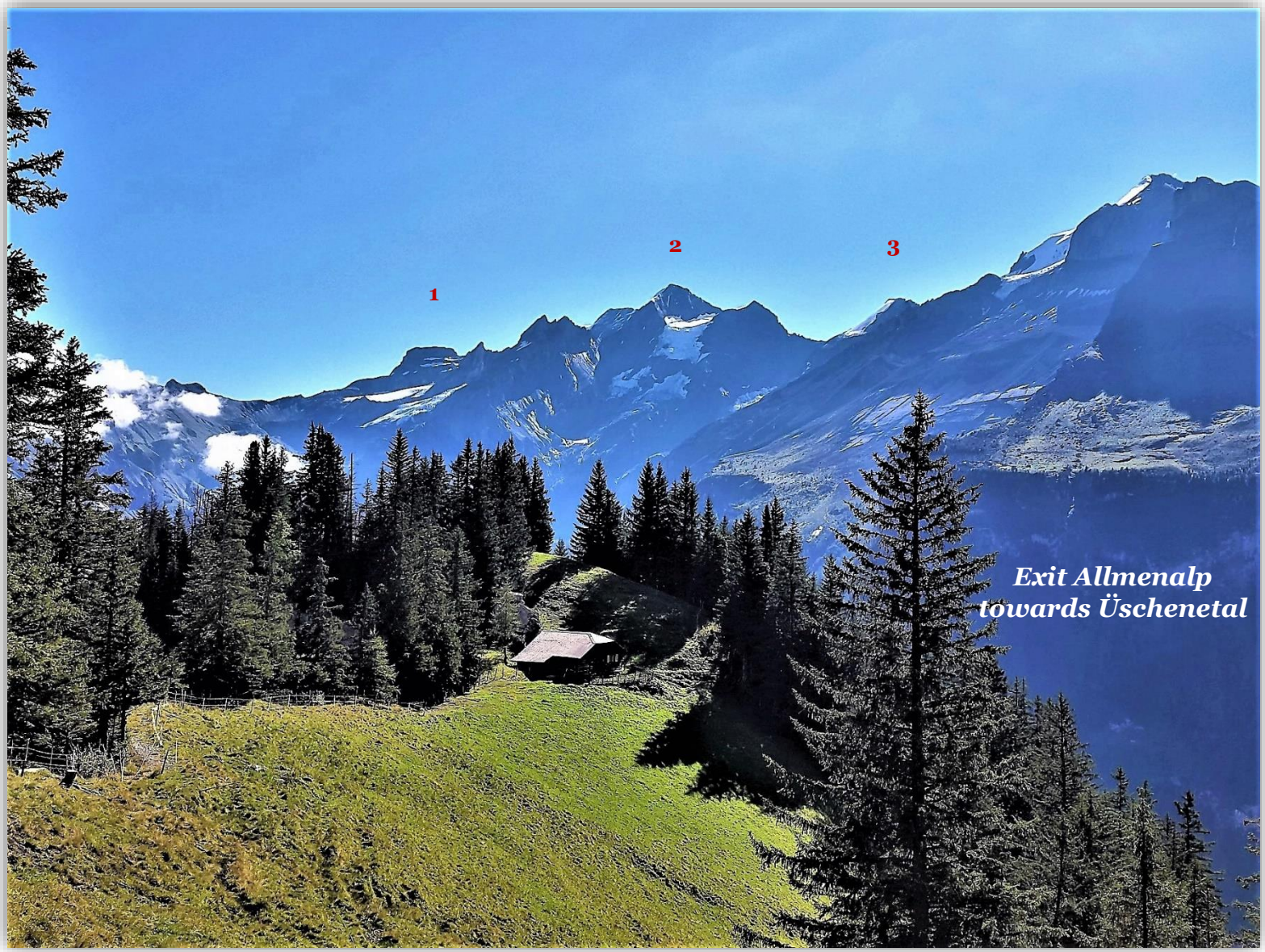


1 Sattelhorn 2,376 m / 2 Ärmighorn 2,742 m / 3 Zallershorn 2,743 m

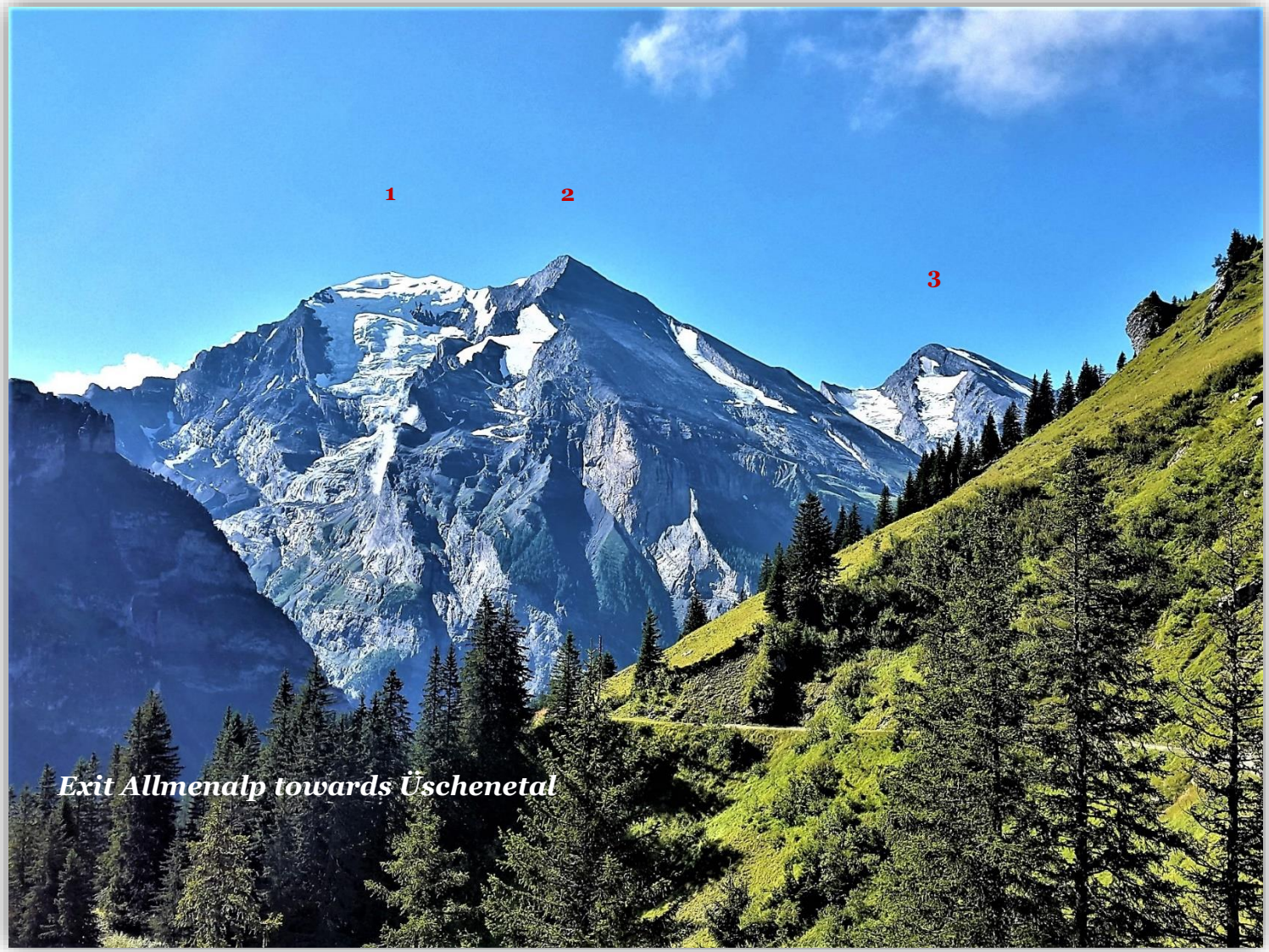
Activities Allmenalp Summer	
	Hiking area, Nordic walking
	Climbing trail
	Paragliding

1 Wilde Frau 3,274 m / 2 Wyssi Frau 3,648 m / 3 Blüemlisalphorn 3,661 m / 4 Oeschinensee 1,578 m

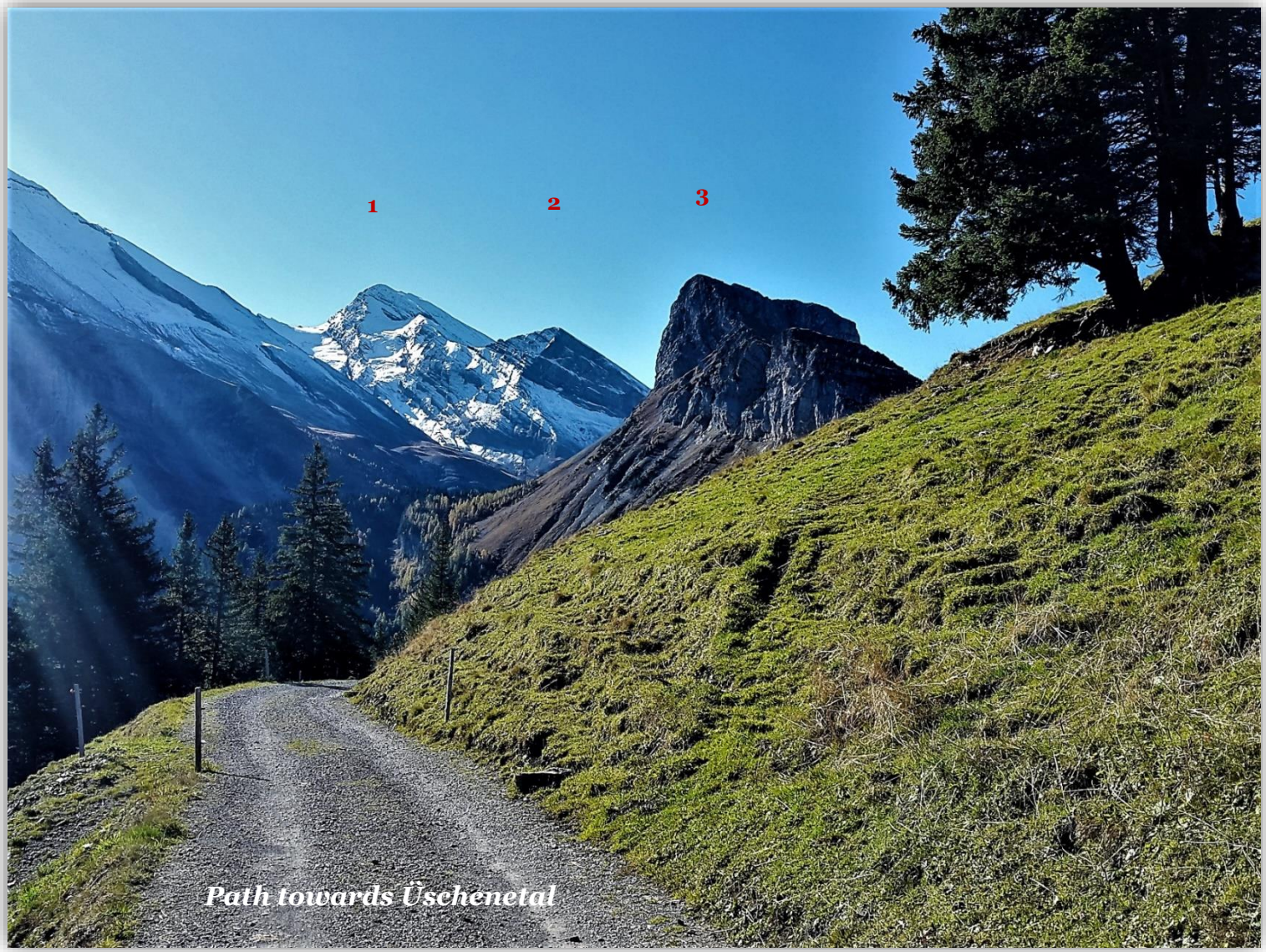
Mountain station of the Kandersteg-Allmenalp cable car



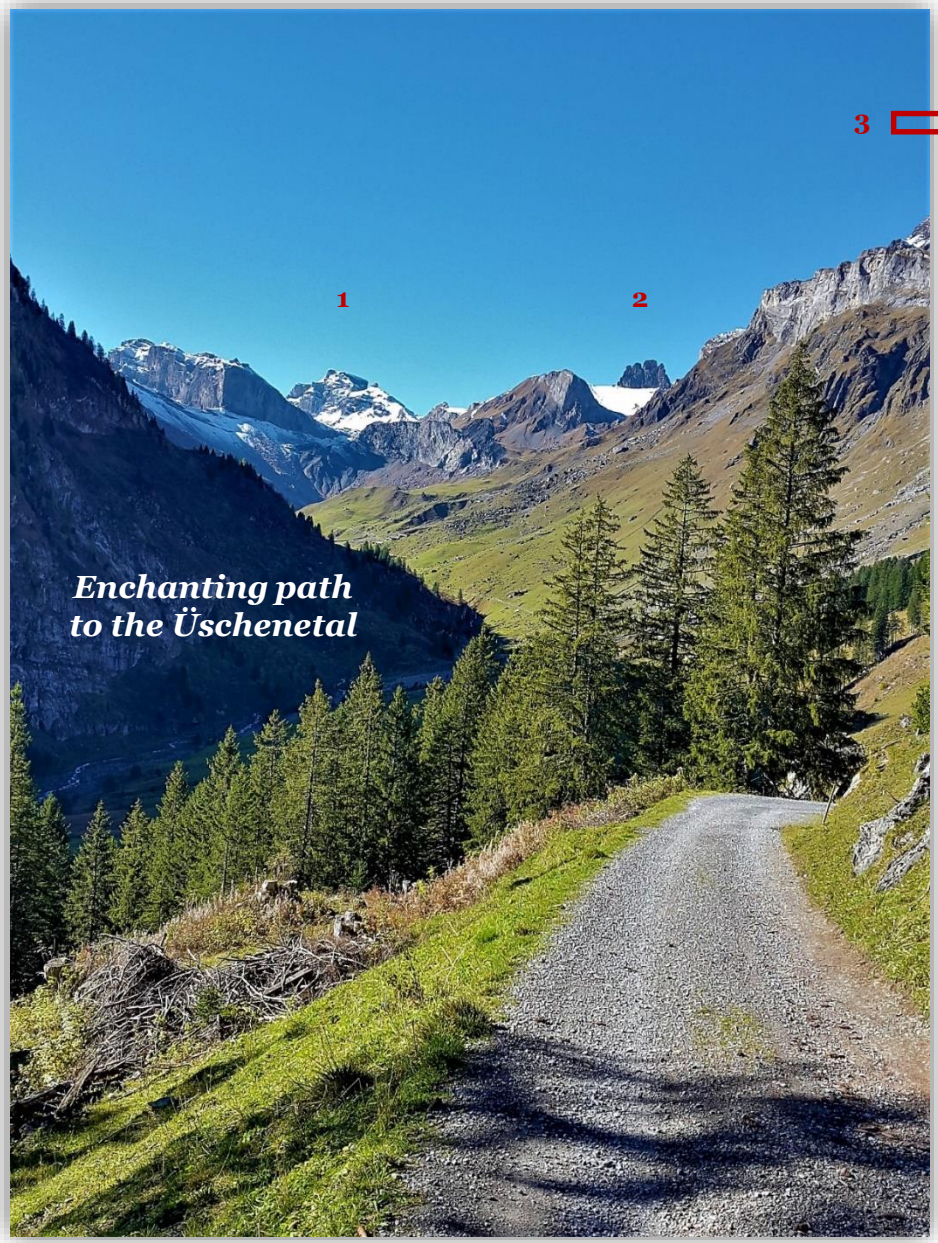
1 Wilde Frau 3,274 m / 2 Blüemlisalphorn 3,661 m / 3 Fründenhorn 3,369 m



1 Balmhorn 3,698 m / 2 Altels 3,629 m / 3 Rinderhorn 3,448 m



1 Rinderhorn 3,448 m / 2 Chli Rinderhorn 3,003 m / 3 Gällihorn 2,284 m



Enchanting path to the Üschenetal

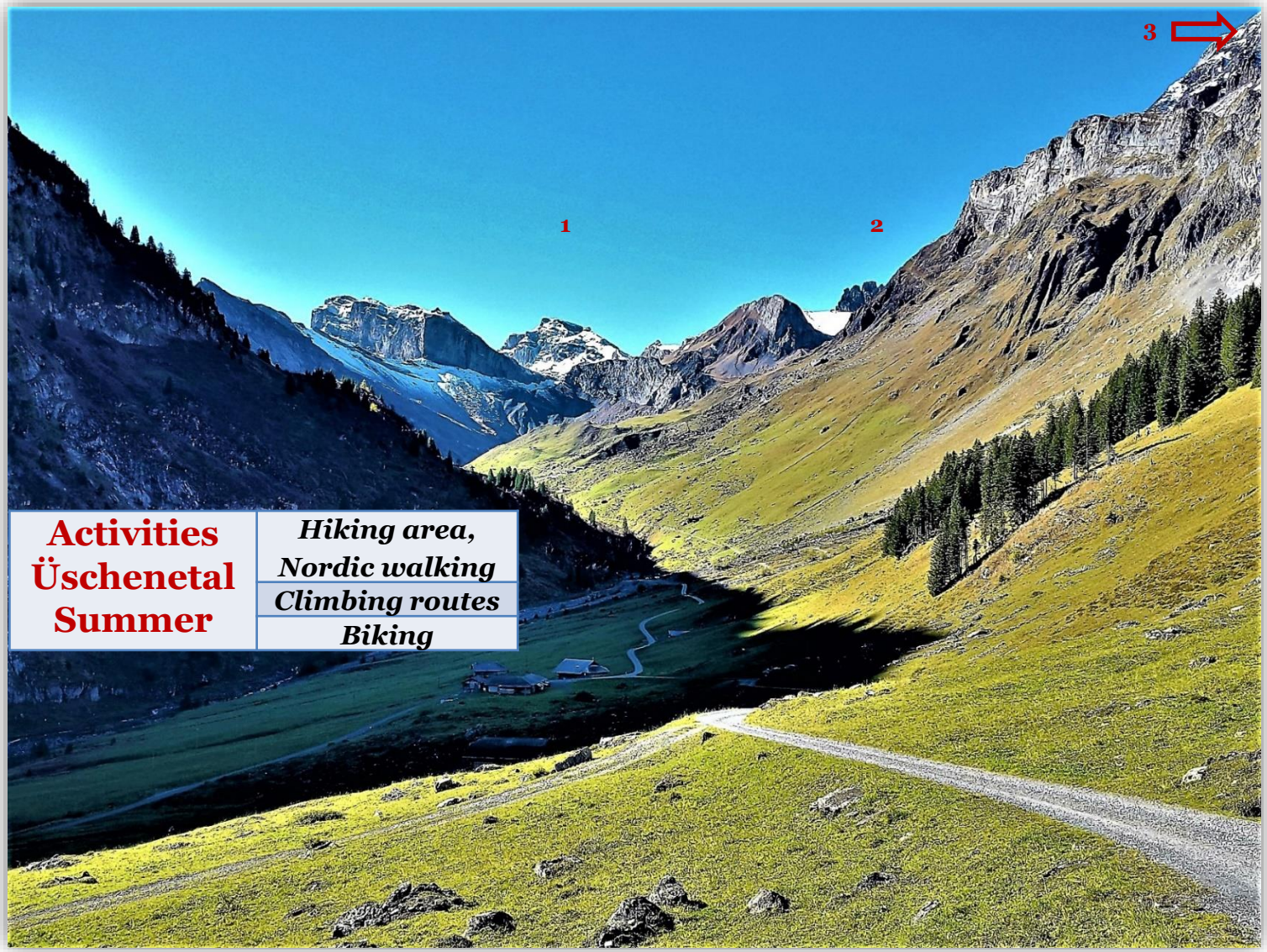
The quiet Üschenetal is primarily used for agriculture.

The Alpbach also serves to generate electricity in Kandersteg:

LWK
Suberi Energie us Chanderstäg

1 Steghorn 3,146 m
2 Tschingellochtighorn 2,735 m
3 Gross Lohner 3,049 m

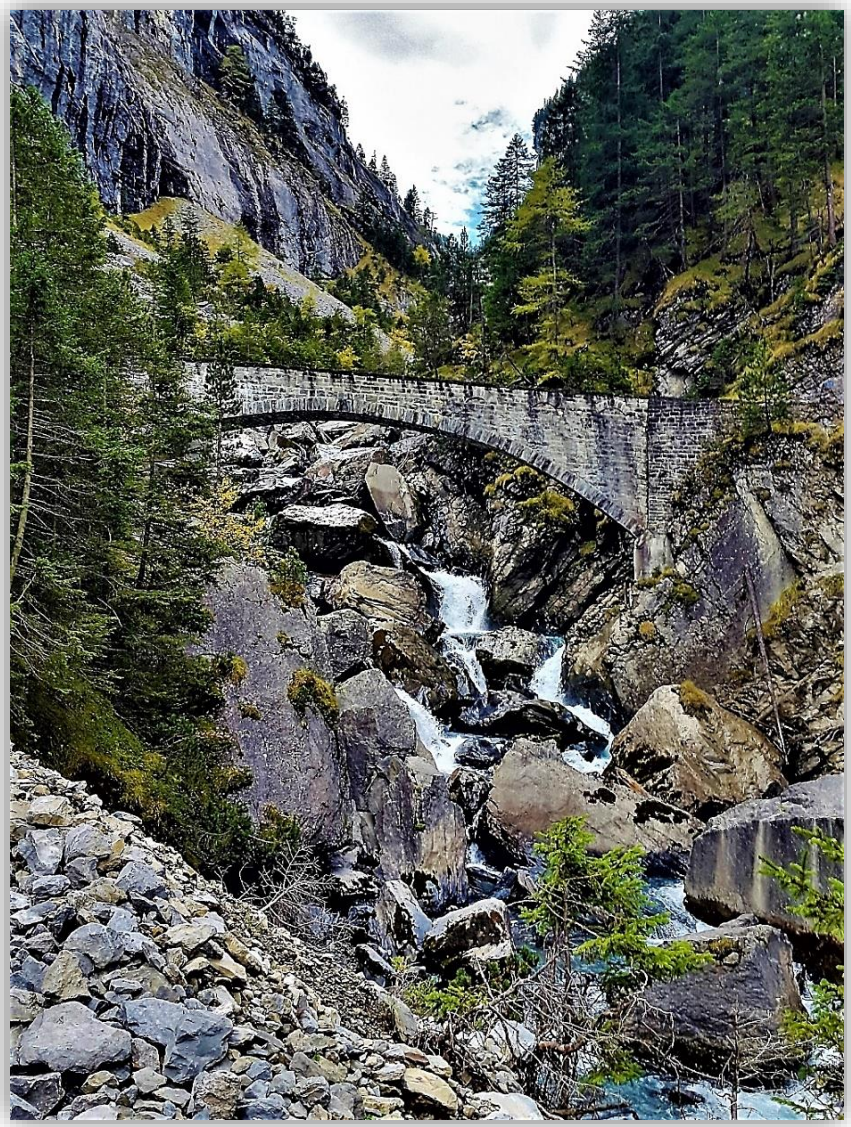
On the other side of the Lohner massif is Adelboden.



1 Steghorn 3,146 m / 2 Tschingellochtighorn 2,735 m / 3 Gross Lohner 3,049 m

4. Gasterntal

Kanderfalls in the narrow Chluse

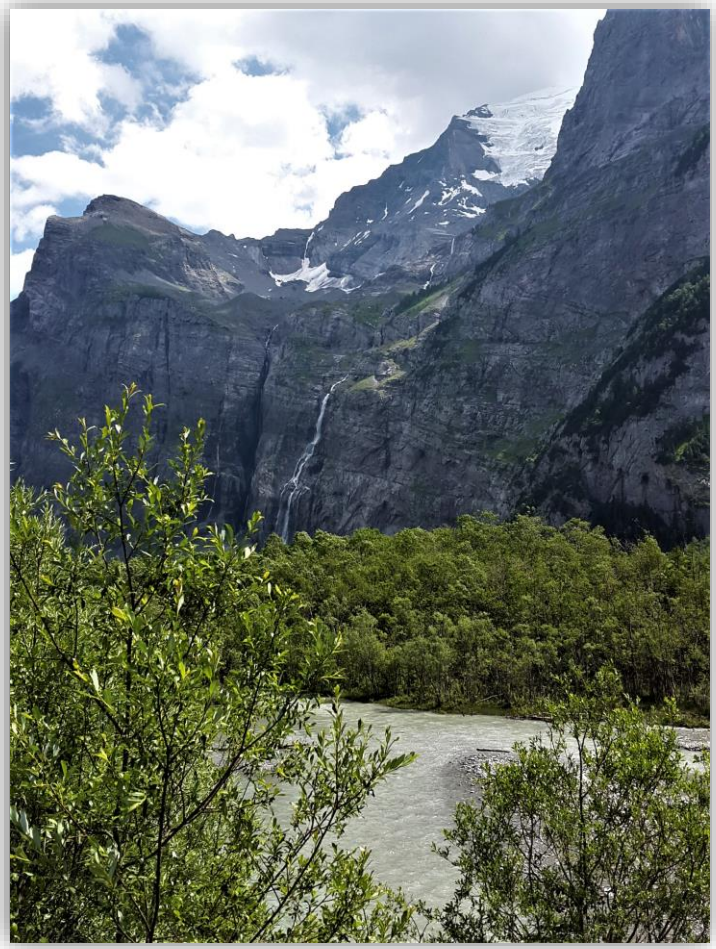


Street with bridge towards Gasterntal

The Kander flows freely and untamed through the Gasterntal. With its changing dynamics it creates an alpine meadow landscape which was placed under protection in the Kanderfirn area and in Gastereholz. Avalanche trains, rubble cones and side streams also structure the area. In addition to a traditionally used cultural landscape, there are numerous habitats for rich flora and fauna.

Source: 5

Balmhornhütte SAC 1,956 m



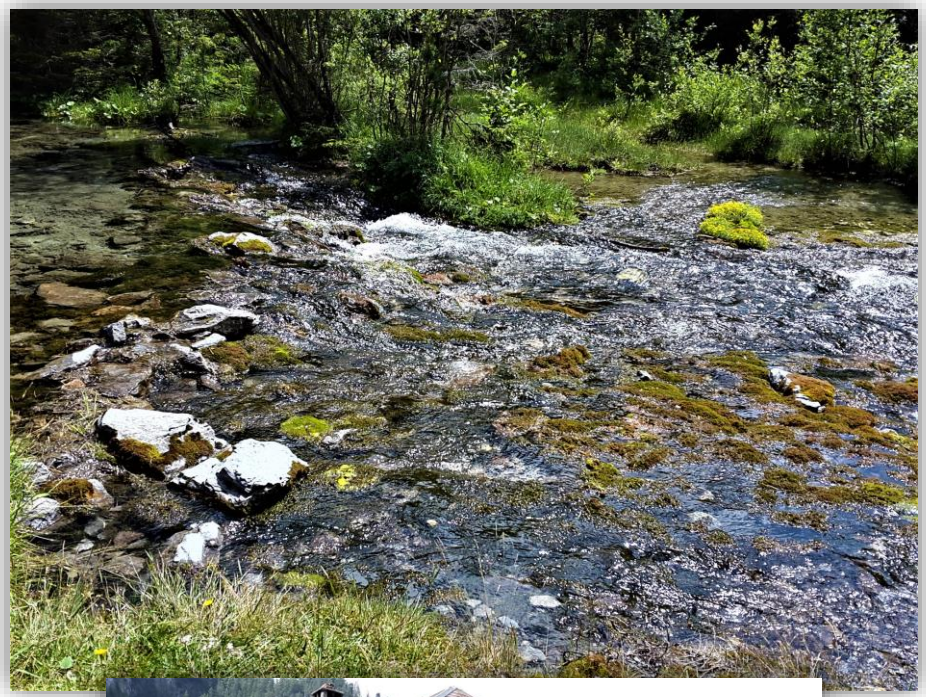
Source: 6

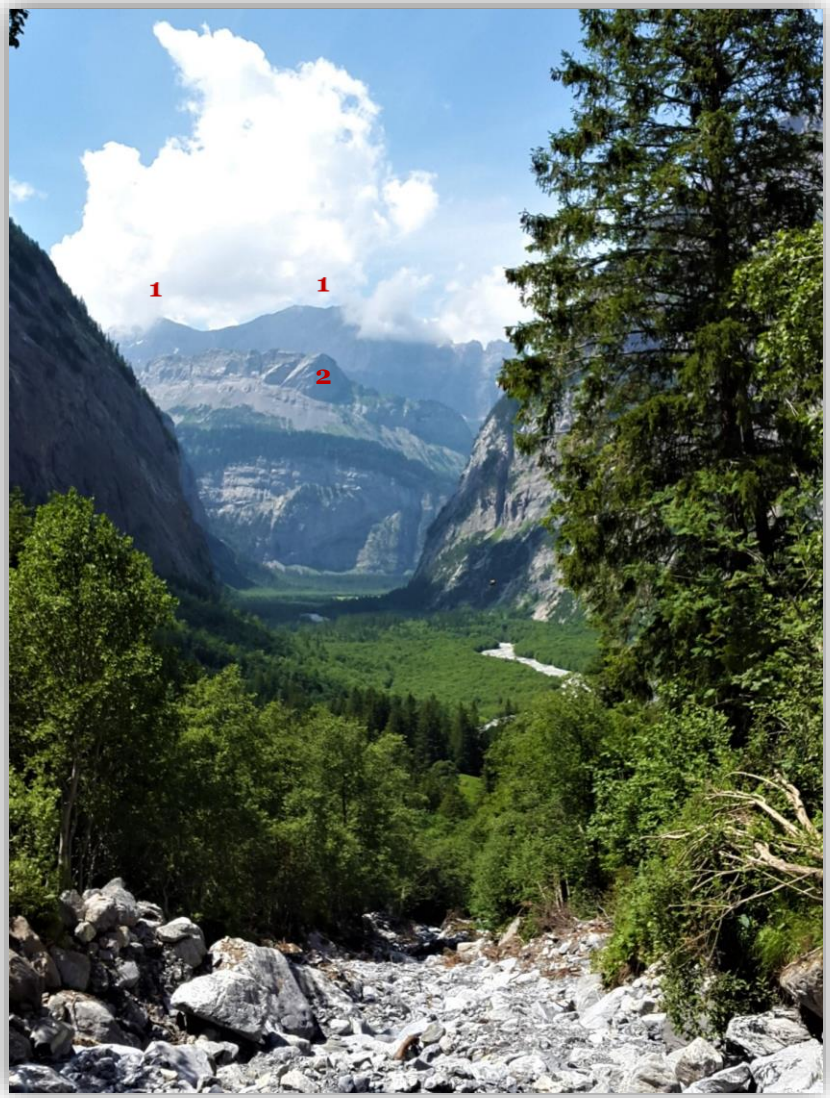
Opposites create significant fields of tension. For example, without darkness light cannot be captured and vice versa. To recognize the positive, the negative is necessary. Fields of tension can therefore not be clearly divided into positive or negative. Four examples from the mountains shall demonstrate this.

Fields of tension	*Affinity for the positive*	*Affinity for the negative*
Cold	*Glacier structure*	*Freeze to death*
Rushing of water	*Relaxation*	*Drowning death*
Avalanche	*Spectacle*	*Death risk*
Rockfall	*Dynamics*	*Case of damage*

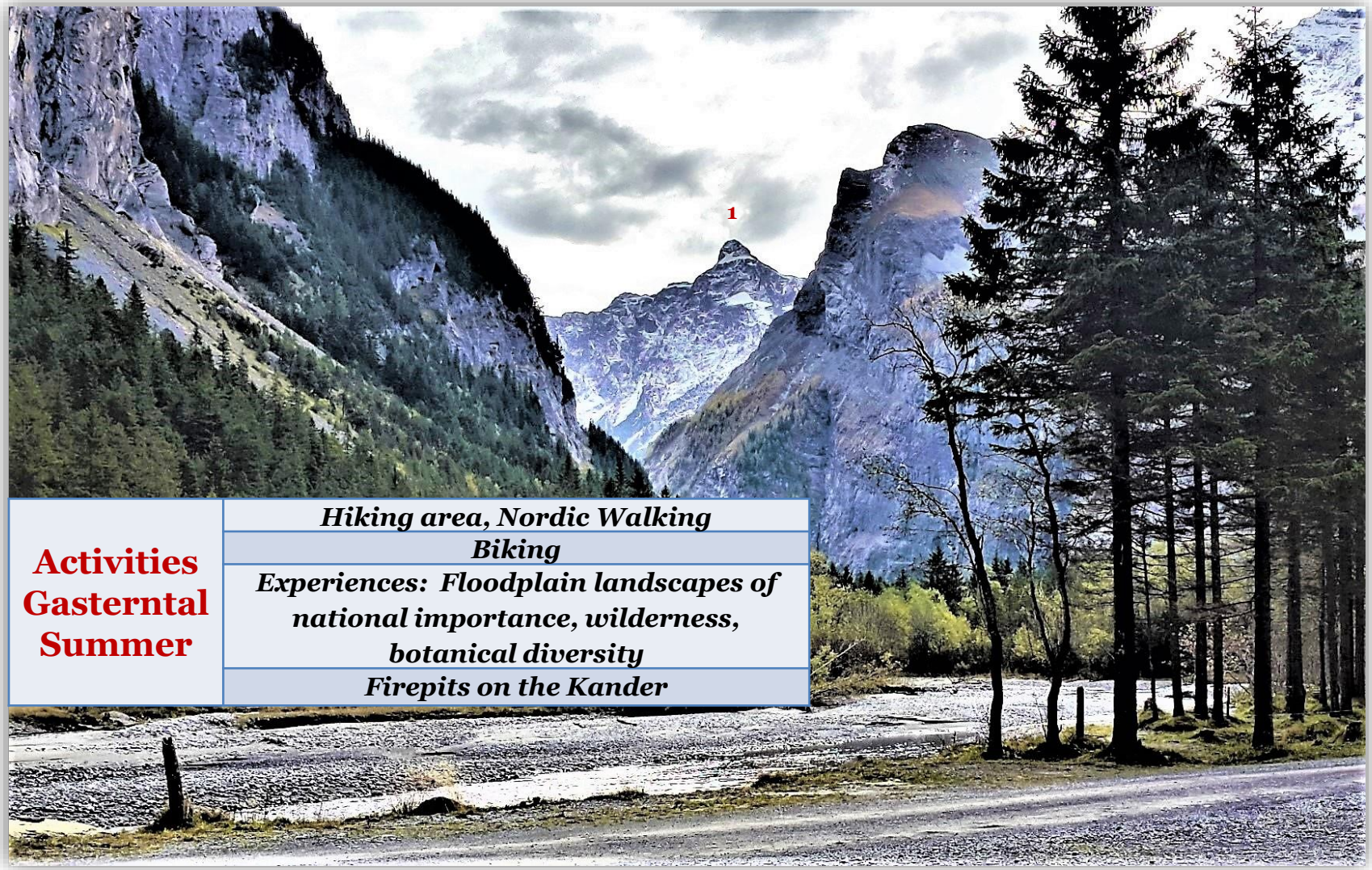

Source: 7
From the 300 m high south wall of the lower Gasterntal, the Geltenbach falls into the valley in warm weather.
Geltenbachfall
The Geltenbach cave is only accessible via the exit point of the 70 m high Geltenbachfall. Until winter 2016/17 2'995 m of corridors were measured in the cave. However, the extent of the cavity system is much larger.

Summer impressions in the Gasterntal





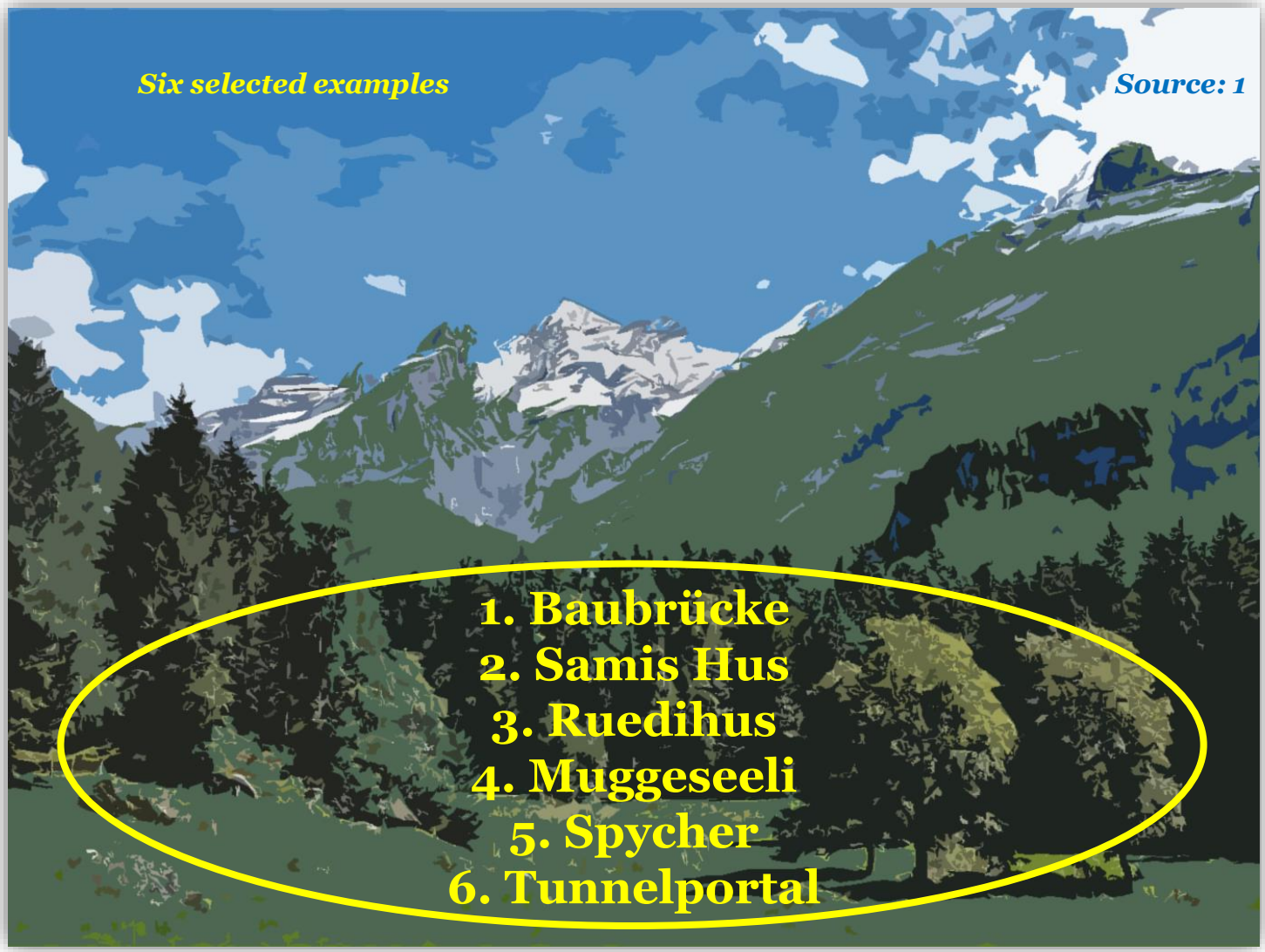
1 Gross Lohner 3,049 m / 2 Gällihorn 2,284 m



Activities Gasterntal Summer	
	Hiking area, Nordic Walking
	Biking
	Experiences: Floodplain landscapes of national importance, wilderness, botanical diversity
	Firepits on the Kander

1 Hockenhorn 3,293 m

3. History - culture



1. Baubrücke

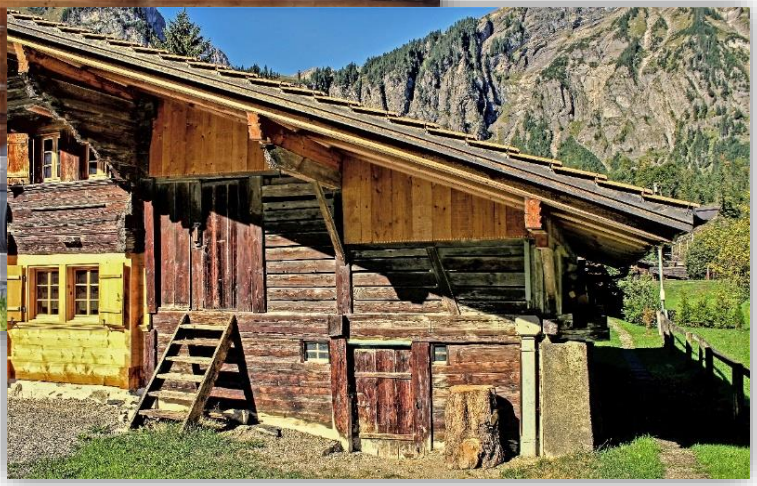
In connection with the construction of the railway, various bridges were built.

Directly in front of the weir there is a corresponding witness.

This construction bridge, built in 1908, is the only one that has been preserved.

2. Samis Hus

The oldest surviving house from Kandersteg is Samis Hus.



It was built in 1556. It is a classic 16th century Frutigländer farmhouse. The residential and economic sections form one unit.

3. Ruedihus - Building

The richly decorated Ruedihus, built in 1753, is probably the most famous building in the Kandertal. During the construction of the railway it served as a Catholic school for the children of the Italian workers, after that it was run as a restaurant.

3. Ruedihus - Garden

Source: 3

1 Ärmighorn 2,742 m
2 Bire 2,502 m

Since the beginning of the 20th century, farm gardens have often been provided with wayside crosses and boxwood borders for the flower beds. In addition to the usefulness, the ornamental function was also important. The garden in front of Ruedihus is designed accordingly.

4. Muggeseeli

Before the realisation of refrigerators, blocks of ice were cut out of these two small lakes in winter and stored on site for longer periods of time. These were used by the hotel industry to cool food and beverages.

For the same purpose, ice blocks transported by sledges from Oeschinensee were stored on the valley floor.

The modern refrigerator was commercially marketed from 1834.

The area of the Muggeseeli represents a communal nature reserve. The name of the lake probably goes back to mosquitoes, that of the neighbouring, smaller Fröscheseeli back to frogs.

Sources: 1, 10

5. Spycher

This Spycher, located at the valley station of the Kandersteg-Sunnbüel cable car, was built between 1510 and 1512 due to the age of wood samples. It represents the oldest remaining agricultural building in Kandersteg.

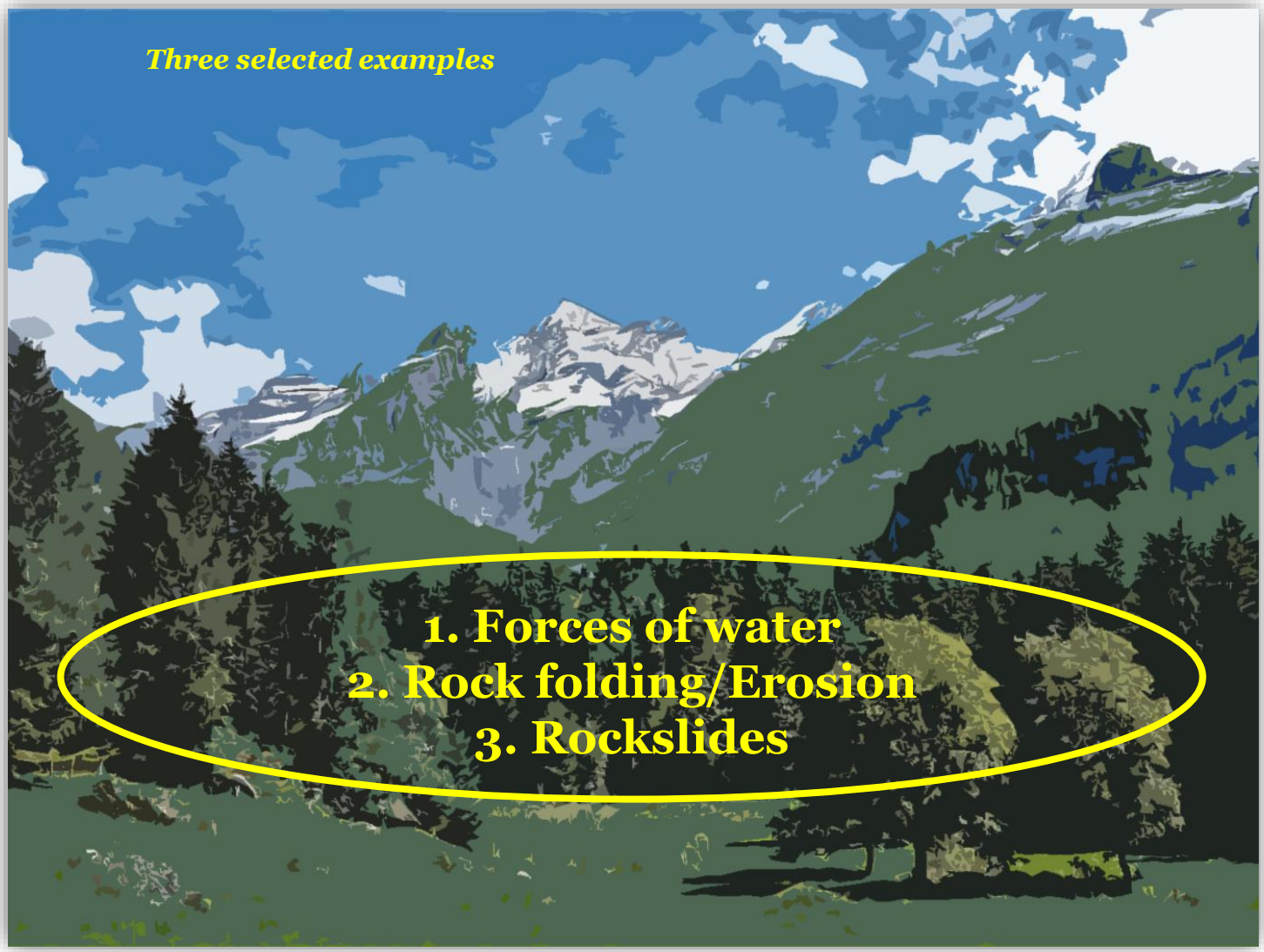
6. Tunnelportal

The construction of the Lötschbergtunnel from 1906 to 1913 enabled an important north-south connection and formed the basis for the BLS car transport service which is still in frequent use today.

The excavation work came to an end on March 31, 1912.

On July 15, 1913, the railway line was handed over to public transport.

4. Events - past



1. Forces of water

Already a heavy thunderstorm can lead to great damage.

Even heavy boulders are moved.

2. Rock folding/Erosion

During the formation of the Alps, old layers were partly pushed over younger ones and others were literally folded up.

Typical folds and fractures are particularly visible on the Bire or the Jegertosse in the Gasterntal.

In addition, erosion indicates the gigantic forces of water.

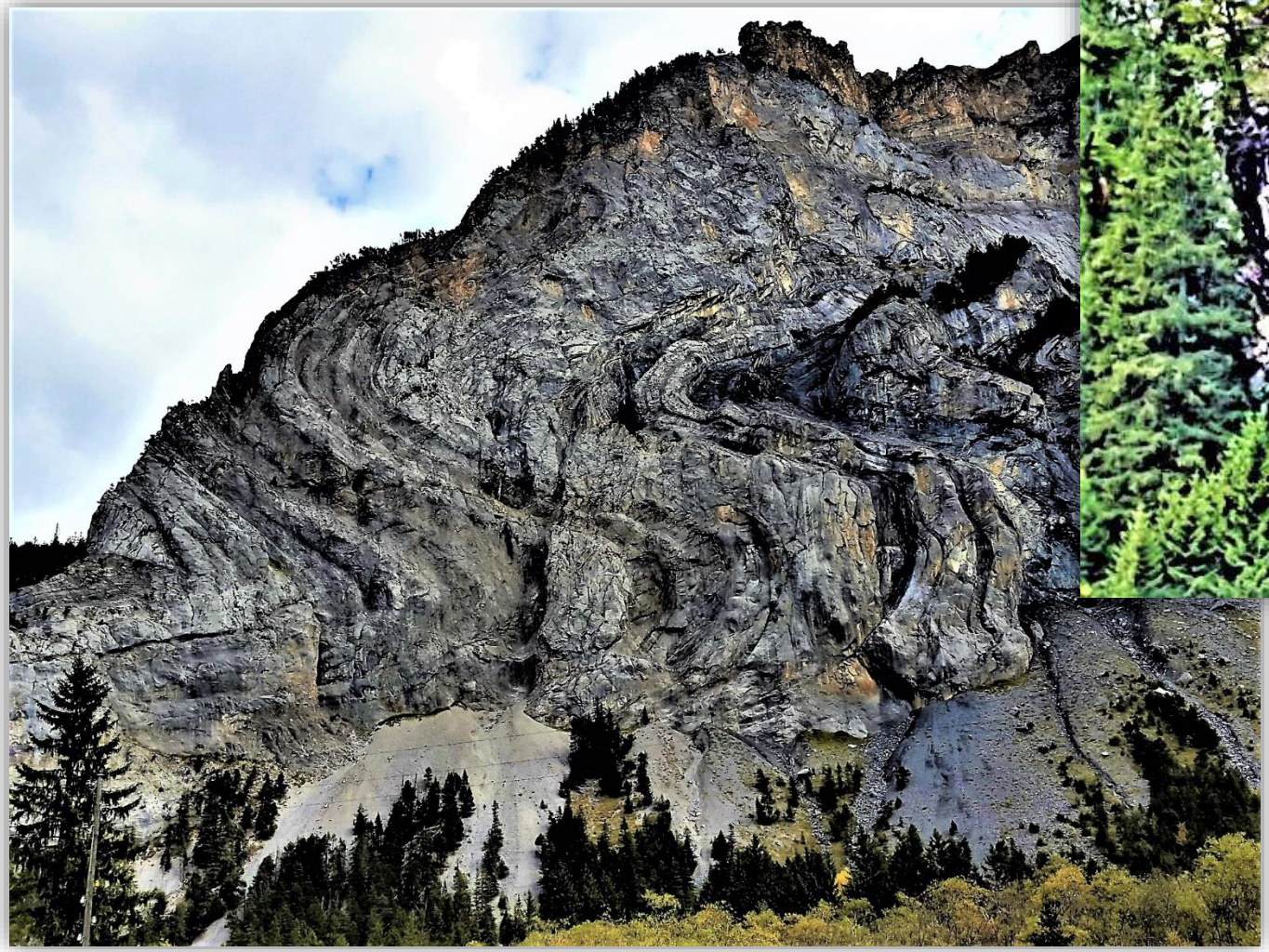
The elemental forces during the formation of the Alps can only be guessed at.

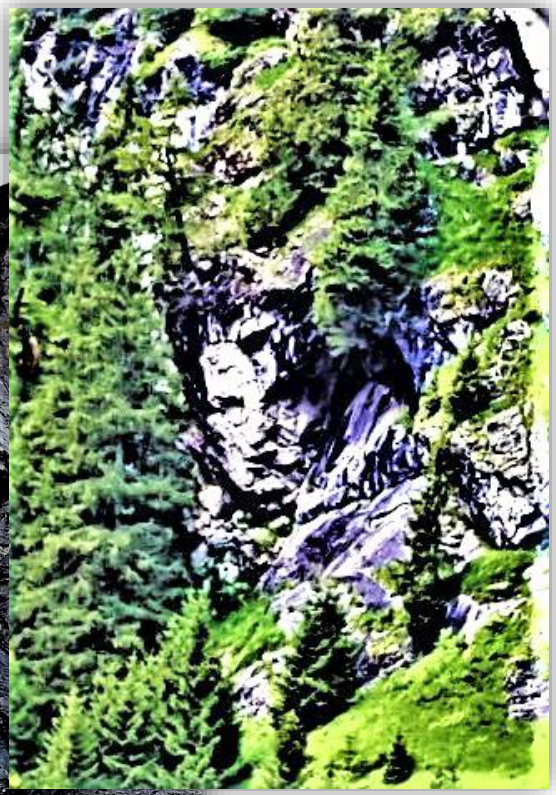
Sources: 8, 9

1 Bire 2,502 m

Gasterntal

Folds** on the **Jegertosse 2,155 m





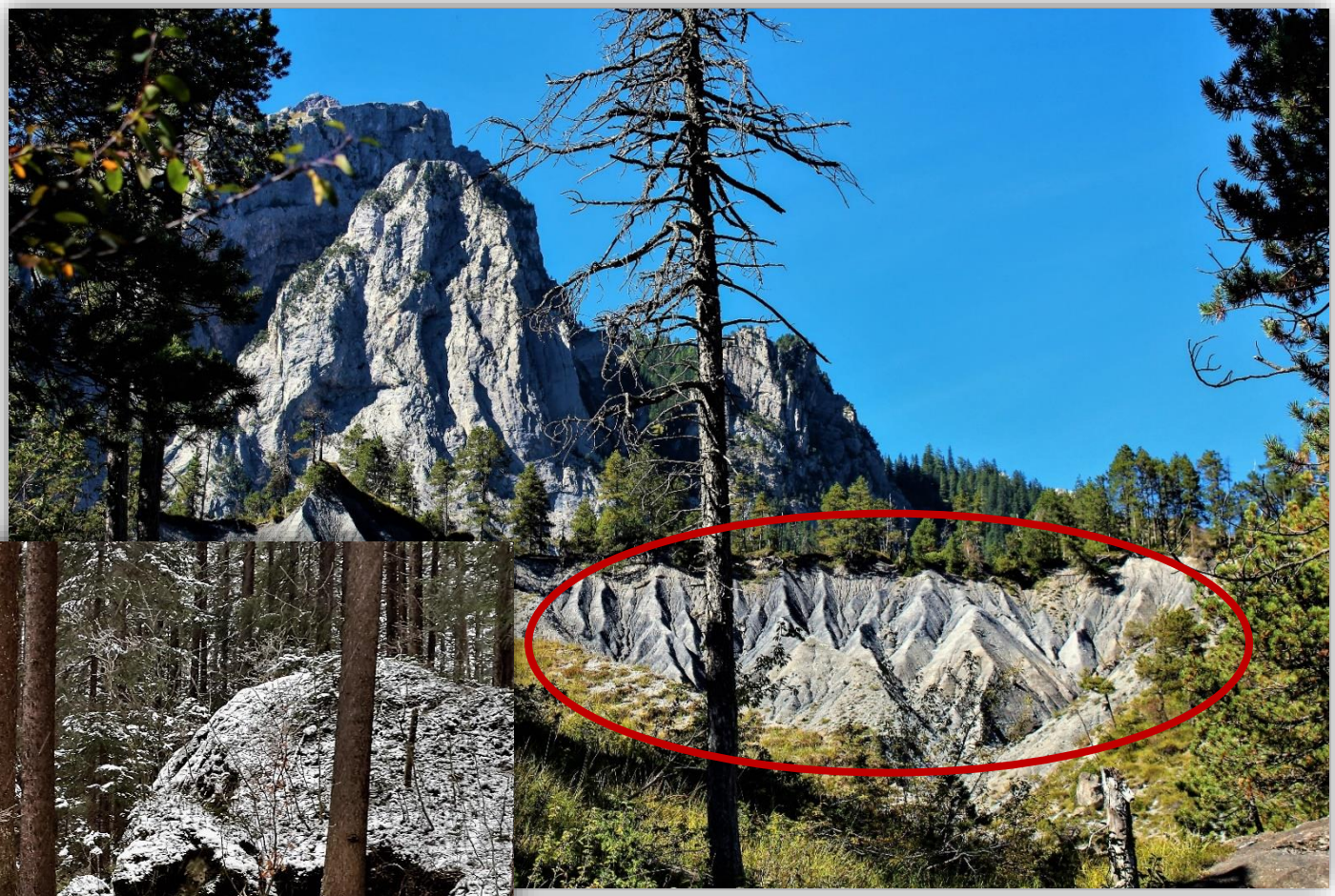
Northwest of Selden, **erosion** created a remarkable peculiarity, the **"Gastern face“**.

3. Rockslides

Source: 1

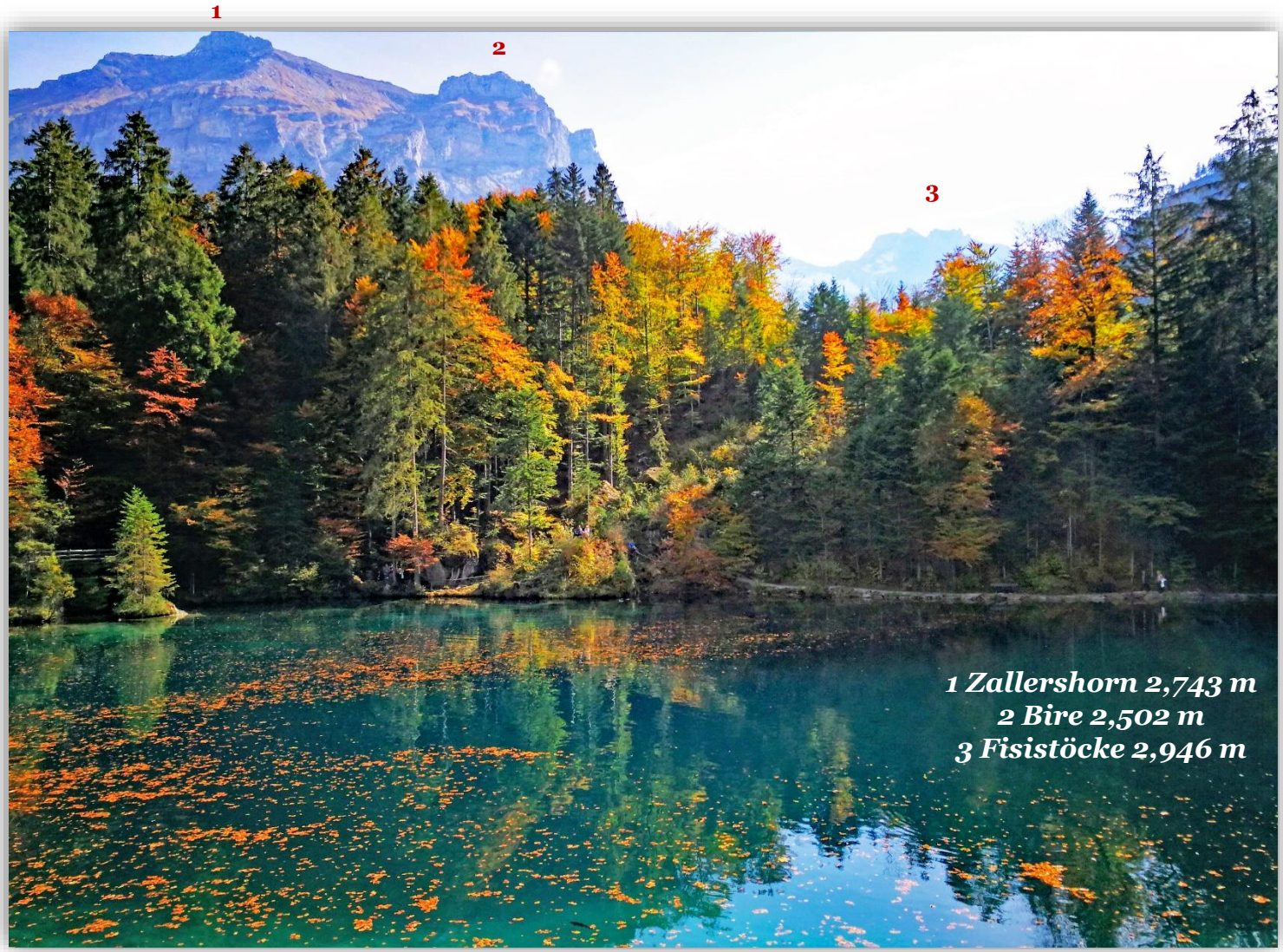
When the glaciers of the last Ice Age retreated, the pressure of the rock masses discharged throughout the entire Alpine region in sometimes violent rockslides. Thus, probably around 9,000-15,000 years ago, a limestone mass with a volume of almost one cubic kilometer separated on the northern flank of the Fisistock-Doldenhorn-massif. This fell into the valley, burst on the western slope of the valley and shot down the Kandertal as a stream of blocks and debris for about eight kilometers.

The tear-off edge lies just below the summit of the Doldenstock. The glide path can be clearly seen through the large, exposed and inclined stratum surfaces. Traces of the impact are impressively visible in the Riseti area. There is only light woodland there, mainly with Mountain Pines and Juniper bushes.
This rockslide filled the valley floor up to 400 m high with debris.



Traces of the impact in the Riseti area

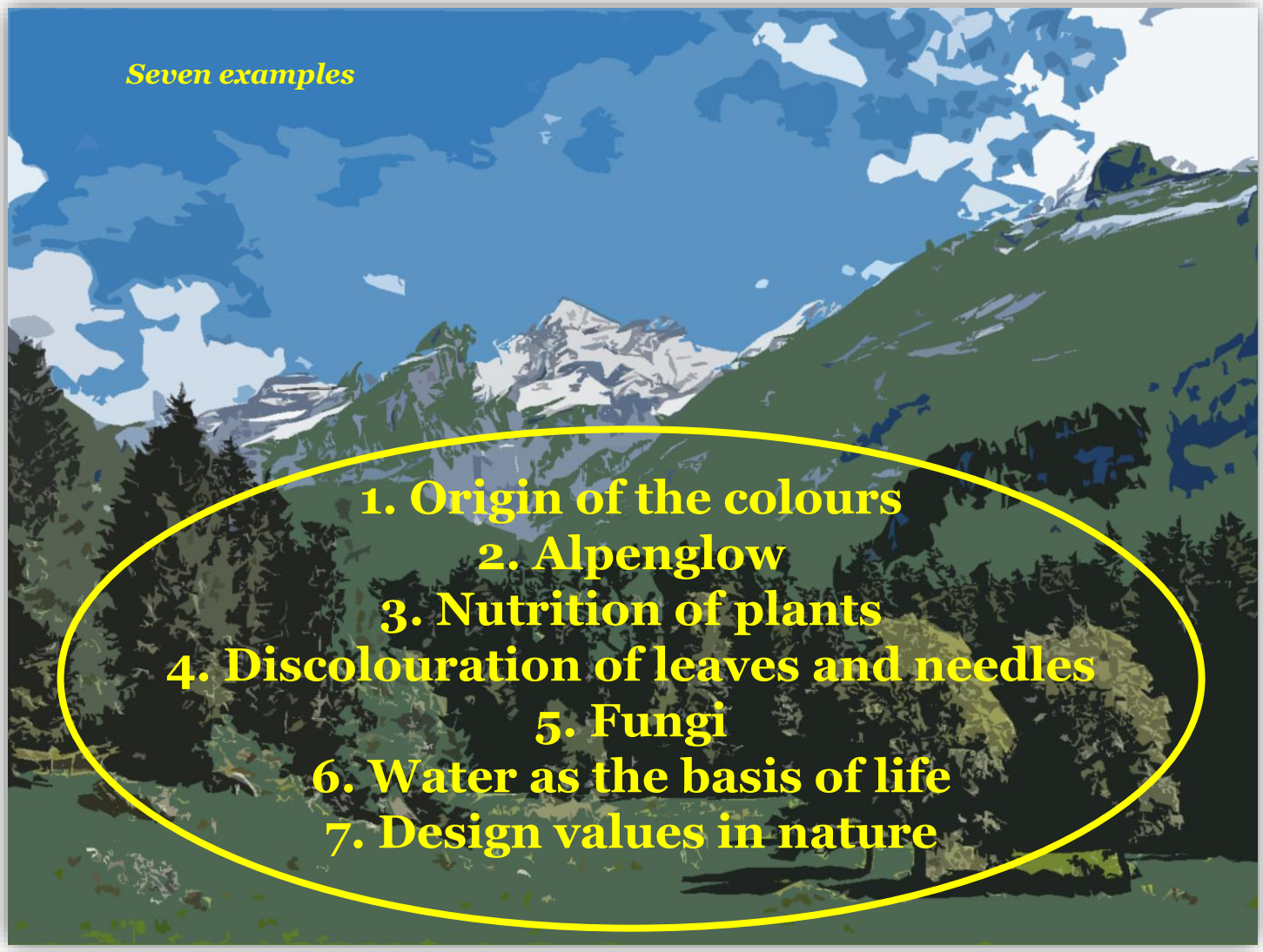
Stone blocks in the Höhwald



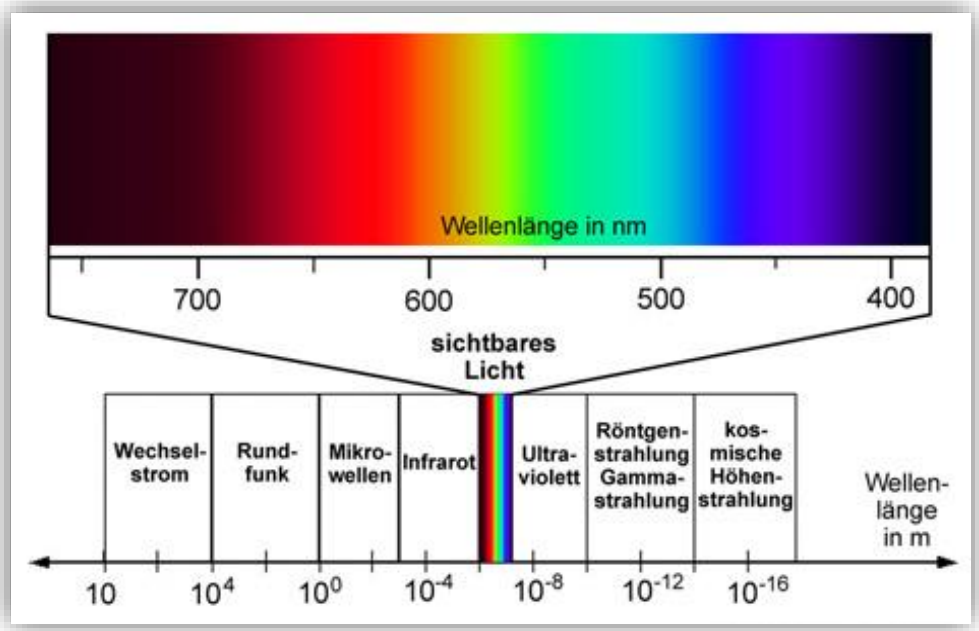
A very beautiful hike in a northerly direction leads after about 1.5 hours to the extremely clear Blausee, which belongs to the municipality of Kandergrund. Its surroundings are characterised by huge boulders, originating from the above-mentioned rockslide. The nature park includes walking paths, barbecue areas, picnic and children's play areas.

A somewhat smaller rockslide from the northern flank of the Doldenhorn (1) led to the damming of Oeschinensee.

5. Nature - selected aspects



1. Origin of the colours

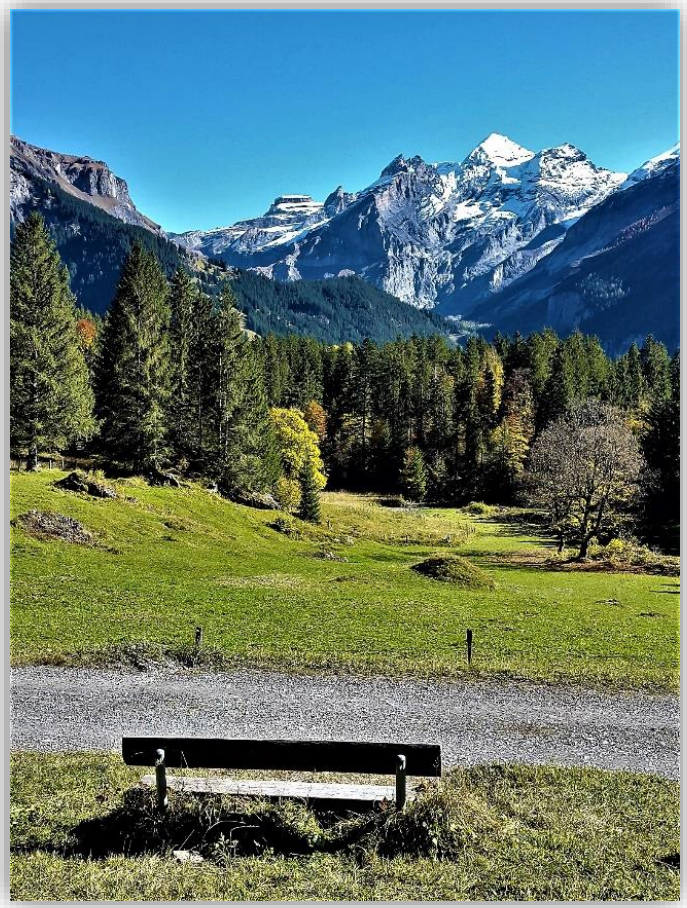


The colour spectrum is the part of the entire electromagnetic spectrum visible to humans. It comprises wavelengths between 380 and 780 nanometers.

White is produced by a mixture of individual colours.
The visible light is reflected.

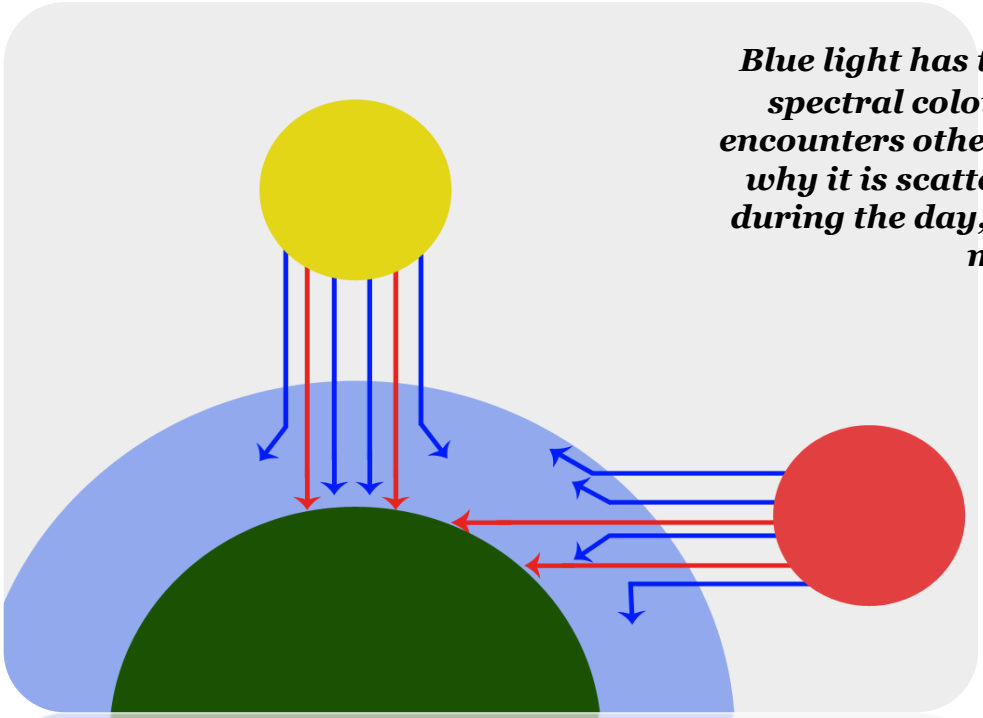
An object appears black, if it does not reflect light under the current illumination.
It absorbs the visible light.

Sources: 11 - 14



Colours wealth

Sky colouring

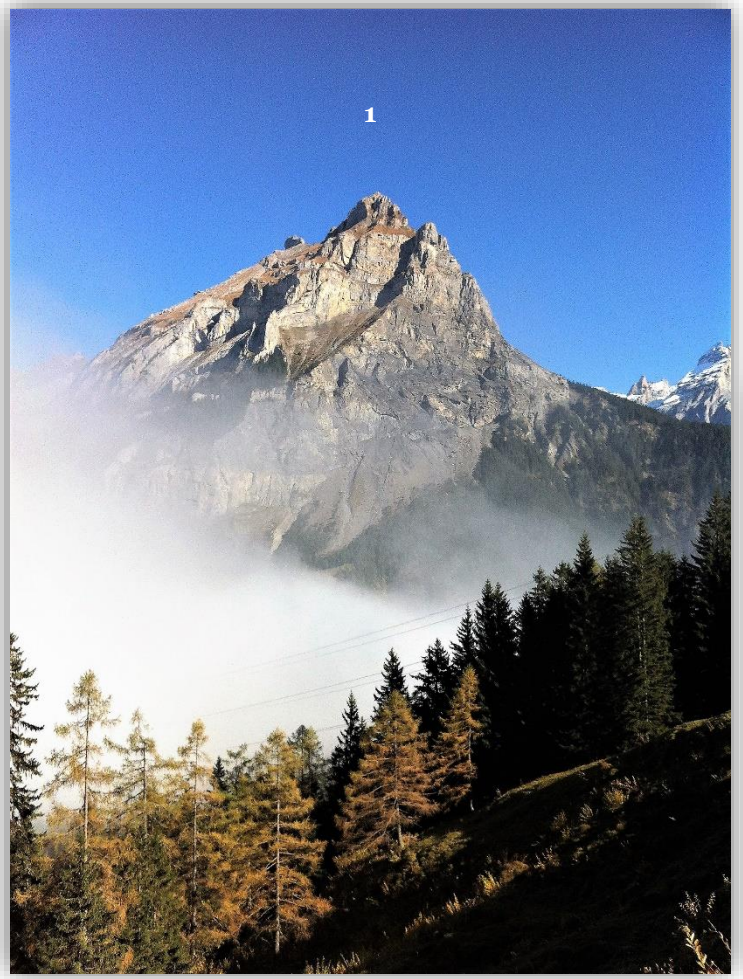


Source: 15

Blue light has the shortest wavelength of all visible spectral colours and therefore most frequently encounters other particles in the atmosphere. This is why it is scattered the most. When the sun is high during the day, it is scattered across the entire sky, making it appear blue.

In the evening and morning, however, the sun is much lower. Thus, there are much less blue colour parts in the field of view, because they are more often deflected on the longer distance through the atmosphere and thus scattered in other directions. Due to the lower blue component the sky appears orange to red.

Colourfulness



1 Bire 2,502 m / 2 Wilde Frau 3,274 m
3 Blüemlisalp-Rothorn 3,297 m / 4 Wyssi Frau 3,648 m

2. Alpenglow

1 Ärmighorn 2,742 m / 2 Bire 2,502 m

The play of light in the area of sunrise or sunset is reflected on the peaks of the mountains which serve quasi as a "screen".

Source: 16

1 Wilde Frau 3,274 m / 2 Blüemlisalp-Rothorn 3,297 m / ◯ Blüemlisalphütte SAC 2,840 m

3. Nutrition of plants

The animals must take their food from outside: Consumers.

There are herbivores like sheep or cattle, carnivores like hedgehogs or lions and omnivores like bears or pigs.

A lot of chlorophyll, here at the natural children's playground

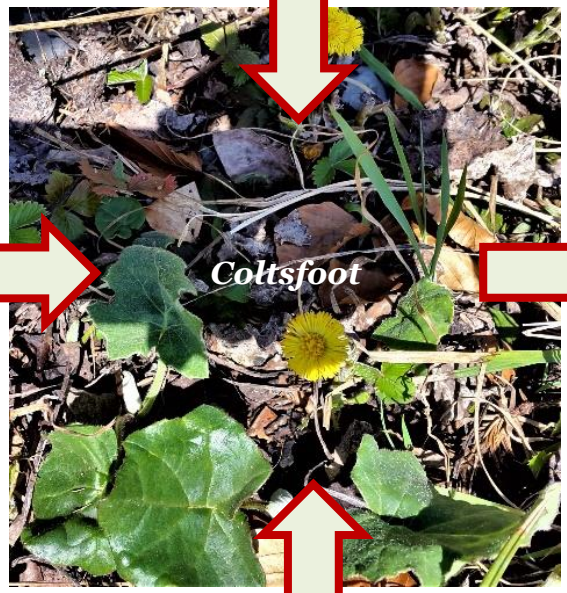
1 Gällihorn 2,284 m

The plants, on the other hand, feed themselves by means of photosynthesis: Producers.
To do this, they need carbon dioxide and water and, with the help of solar energy (light), they produce glucose and oxygen in the cells containing chlorophyll.
As a side effect, they renew the air.
From the glucose they can develop further carbohydrates, proteins and fats, and absorb the vital minerals dissolved in water from the soil through the roots.

Solar energy (3)

Carbon dioxide from the Air (4)

+



Glucose

+

Water (2) from the soil (1)

Oxygen in the Air (4)

Minerals from the soil (1)

1 Earth	*2 Water*	*3 Fire*	*4 Air*

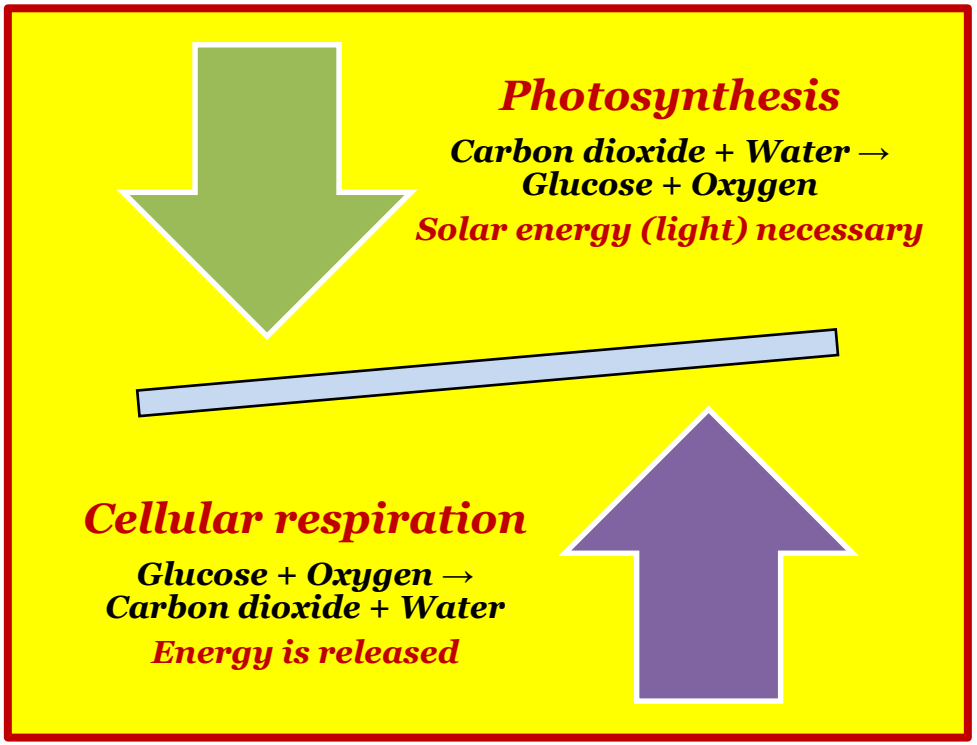
Leaves with beginning of autumn discolouration

Green areas still photosynthesizing

***Photosynthesis** and **respiration** complement each other.*

While the photosynthesis of plants is the basis for building and operating materials of all living beings, the cellular respiration of organisms serves their necessary energy production.

Narrowleaf Willowherbs



4. Discolouration of leaves and needles

Source: 17

In autumn, many plants extract as many nutrients as possible from the leaves before the Leaf Fall . These are stored in the stem and the root. This is also how the valuable green pigment, chlorophyll, is broken down. Other yellowish to reddish pigments now appear.
The brown only appears when the leaf dies. The cause is the oxidation of tannins to brown dyes.

1 Sycamore Maple
2 Common Juniper
3 Forest Strawberry

5. Fungi

Fungi help to decompose organic matter: Destruents.

It is almost exclusively fungi that can utilize the lignin in the woody cell walls of plants.

Fungi are therefore essential in the vital material cycles in nature.

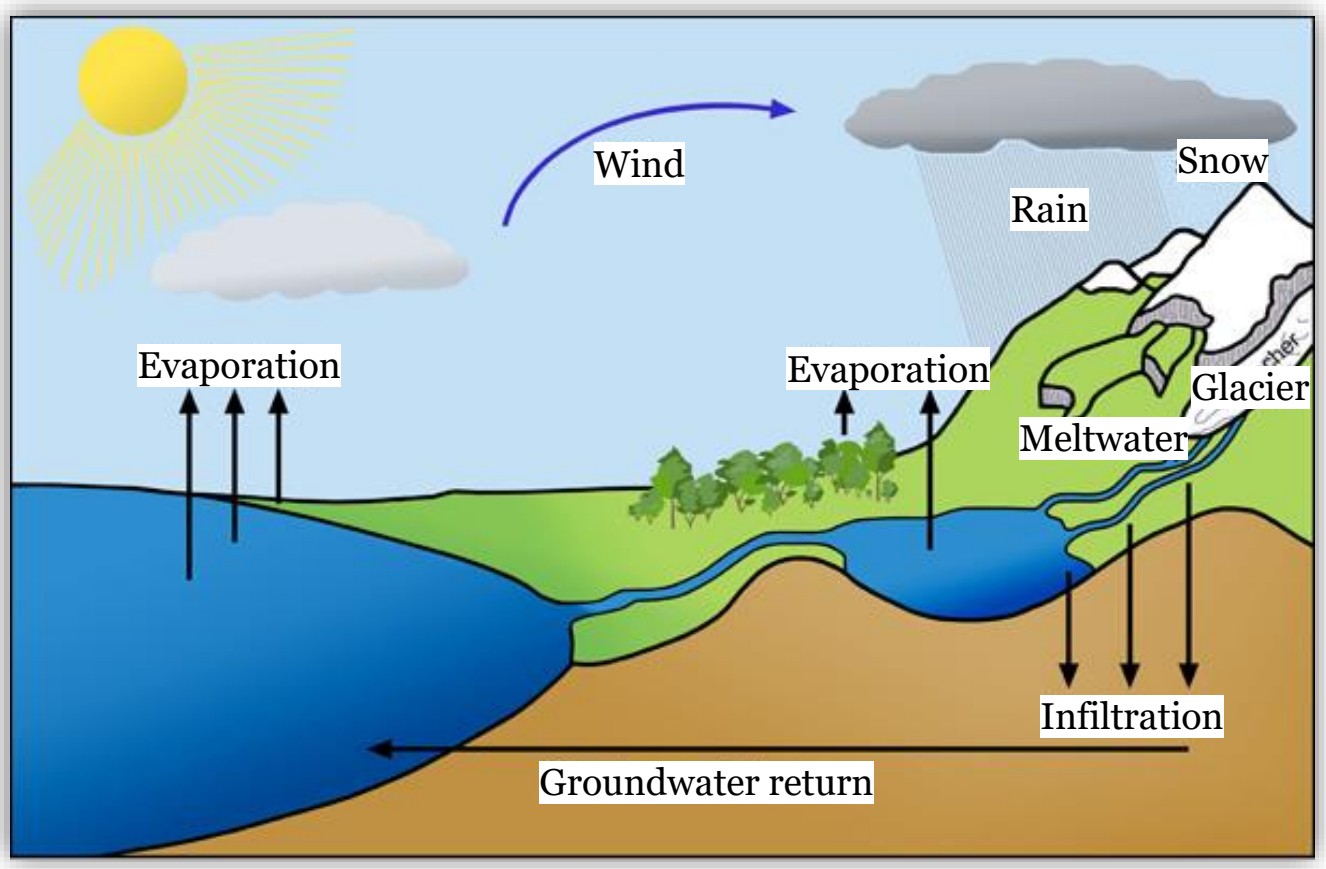
Consumers
People, Animals ...

Destruents
Bacteria, Fungi ..

Producers
Plants

Source: 19

6. Water as the basis of life



Solar radiation causes water to evaporate. This water is released into the atmosphere. The water vapour is distributed over the earth by the winds, until it cools down somewhere and thus becomes liquid again. Finally, water as precipitation again reaches the ground.

Water Cycle

Sources: 20, 21

Snow and electricity

1 First 2,549 m

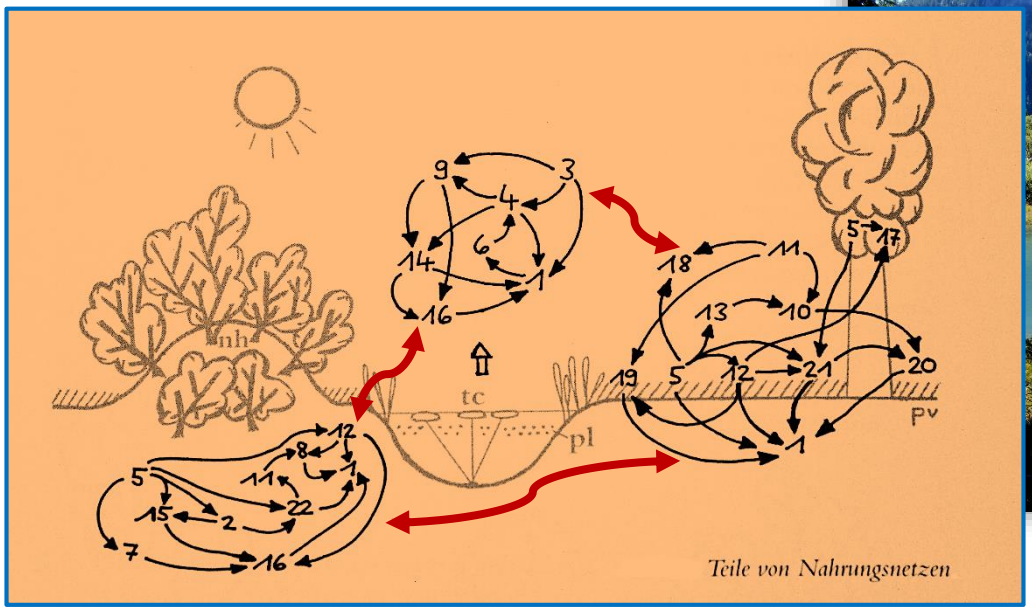
All elements of the earth are somehow connected. For example, the snow in the mountains ultimately provides water which is an important basis for electricity generation.

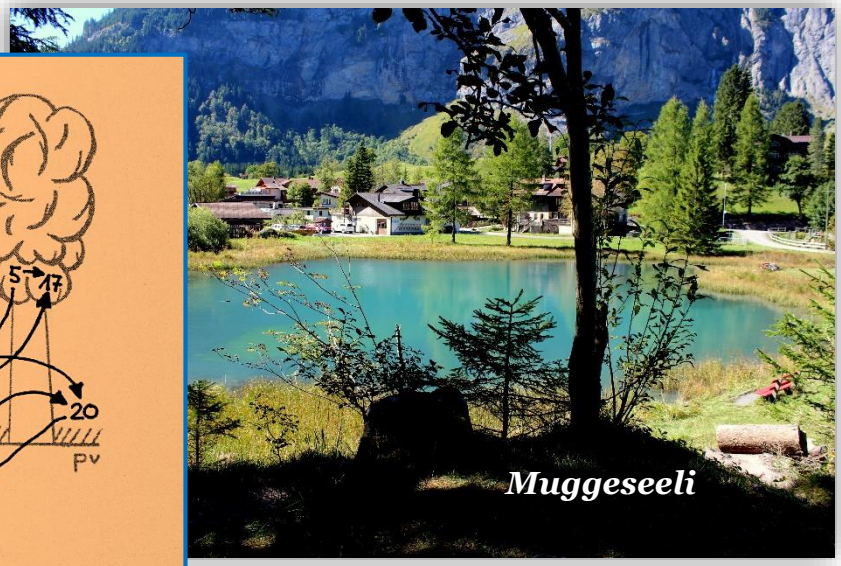
The Licht- und Wasserwerk AG Kandersteg is an example of this:

LWK
Suberi Energie us Chanderstäg

Food webs

Sources: 1, 3



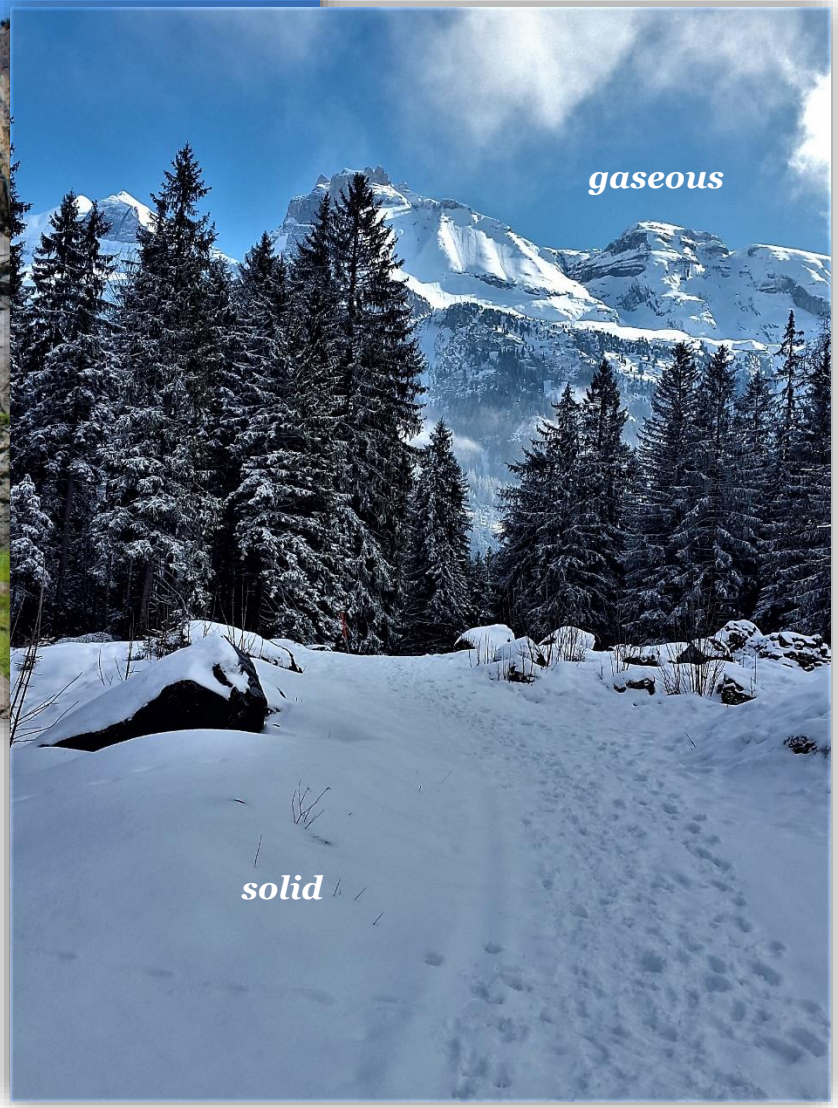


X → Y = X provides food for Y

Naturally, the three subnetworks shown are in turn connected with each other.

nh *Natural hedge/Forest*	*pl* *Plankton*	*pv* *Pioneer vegetation/Meadow*	*tc* *Pond/Lake*
1 Bacteria	*2 Fungi*	*3 Vegetable plankton*	*4 Animal plankton*
5 Higher plants with fruits and seeds	*6 Unicellular animals*	*7 Earthworms*	*8 Spiders*
9 Copepods	*10 Dragonflies*	*11 Mosquitoes*	*12 Caterpillars*
13 Butterflies	*14 Backswimmers*	*15 Snails*	*16 Alpine newts*
17 Blackbirds	*18 Sparrows*	*19 Shrews*	*20 Foxes*
21 Voles	*22 People*		

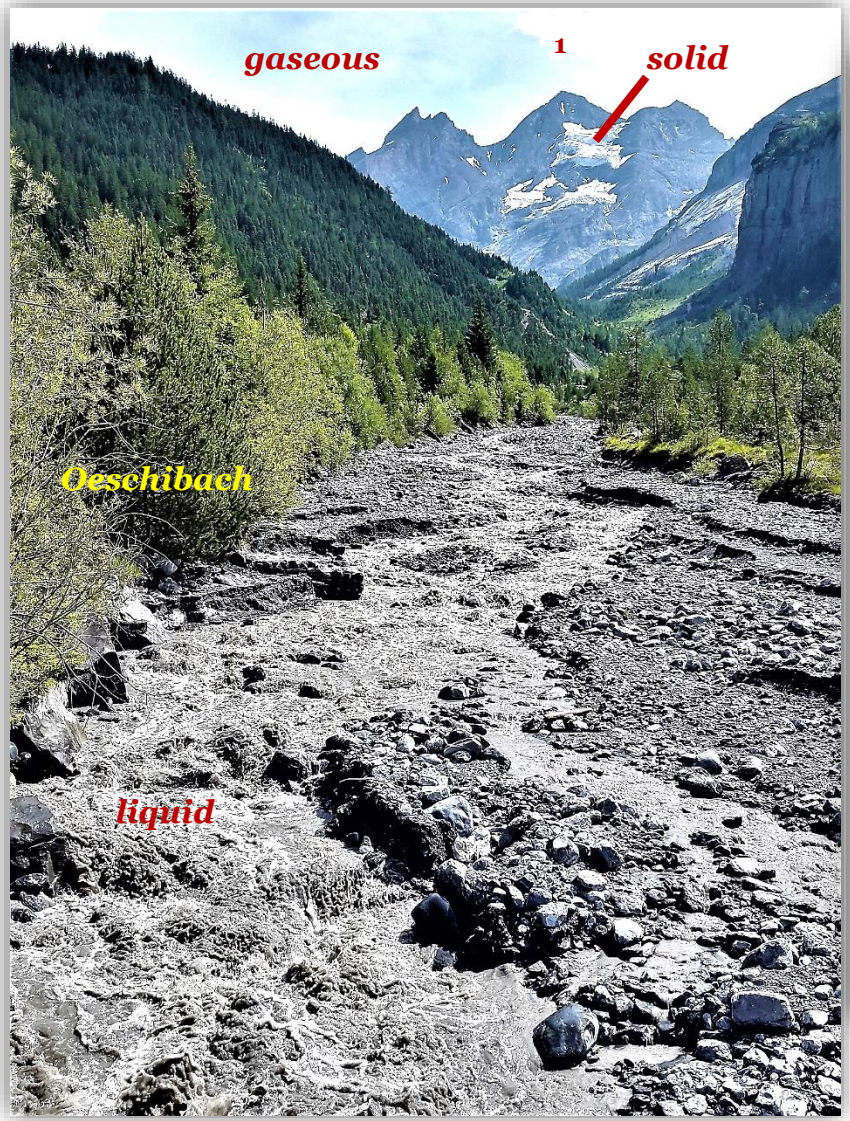
Physical states of water



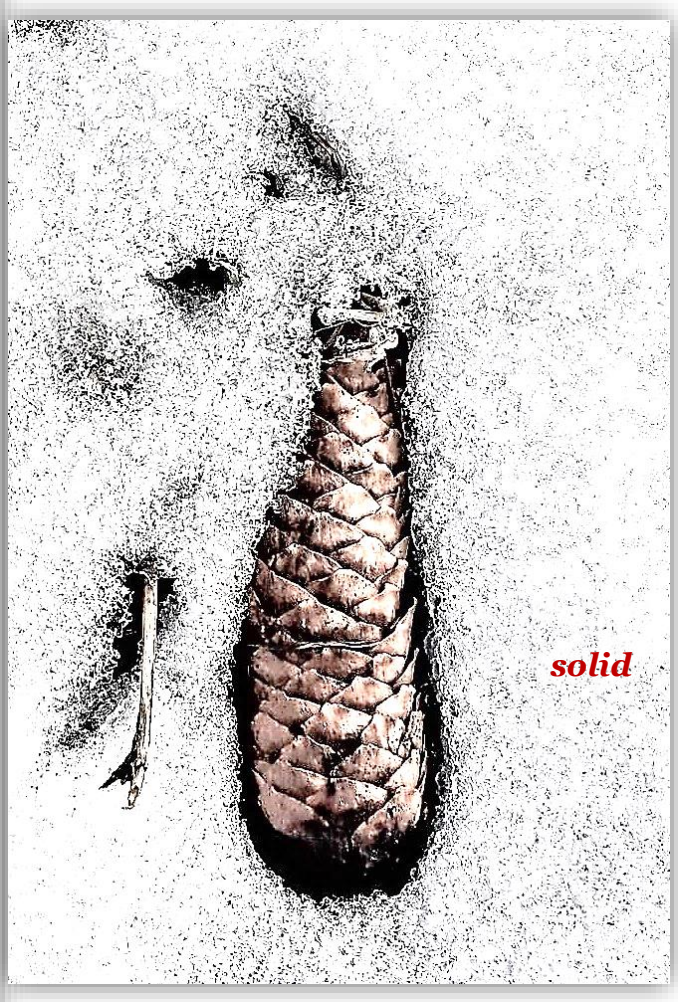
Gaseous water is invisible.

Fog and clouds are visible, because there is a mixture of gases and tiny liquid water drops. The latter are the result of condensation. Clouds can even contain ice crystals.

Source: 22



1 Blüemlisalphorn 3,661 m



By warming the dark spruce cone, the immediately adjacent snow melts faster.

Imposing water formations

Snow crystals

Icicle

Kanderfalls

Drinking water from Kandersteg

Source: 1

The mountains around Kandersteg are the highest formations of pure limestone in Switzerland. Nevertheless, the local drinking water is almost lime-free. In order for water to absorb lime, it must remain in the ground for a relatively long time.

The Oeschinensee, which is fed by rain and melt water, is to a certain extent Kandersteg's electricity and drinking water reservoir. Its underground drains are partially captured. The time the water remains in the ground from the lake to the "Weissenbach" drinking water reservoir is too short to absorb much lime.

After treatment, the very soft drinking water, probably one of the best in Switzerland, enters the pipes.

7. Design values in nature

Fractals

Sources: 1, 6, 23

Objects that are similar to their components are called fractals. They exhibit self-similarity.

The world is often clearly fractal: "The big in the small and vice versa".

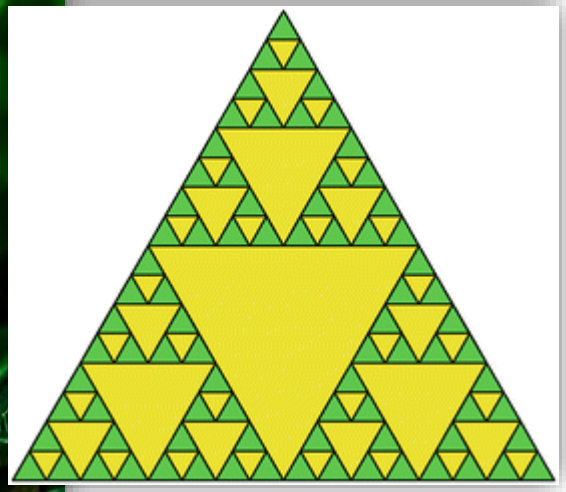
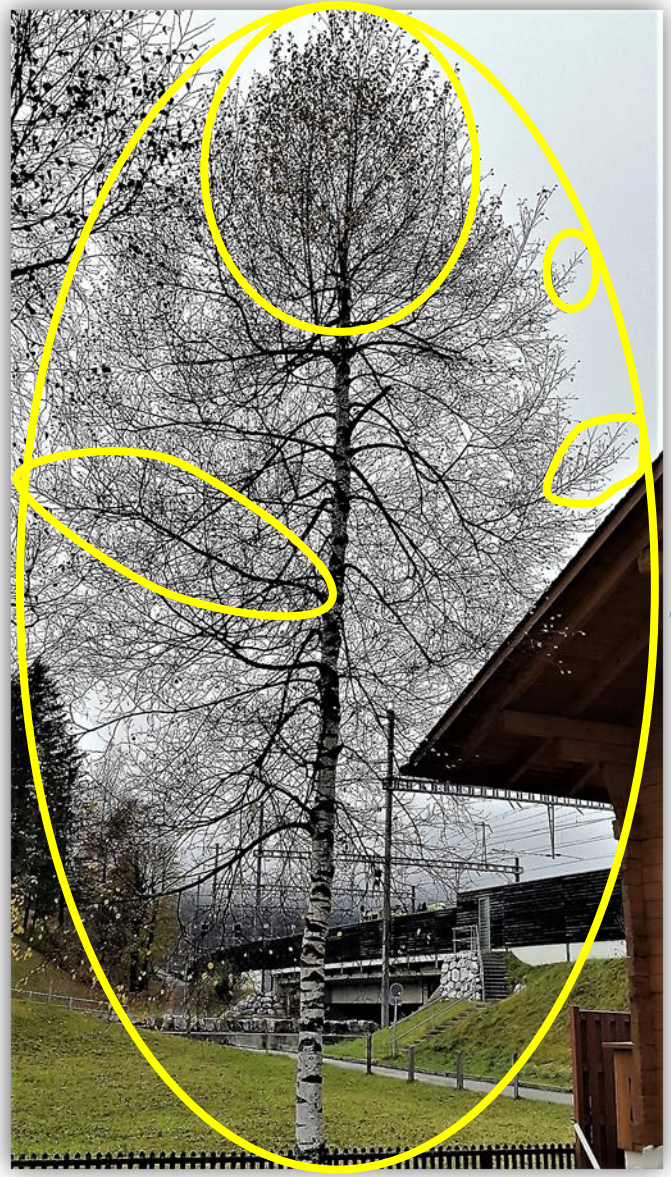


Illustration: Springer Link

Structures repeat themselves:
"The big in the small and vice versa"

Spruce as fractal



Birch as fractal

Elk antler lichen as fractal

Universe as fractal

"Similar numerical values in large and small"
Only Kandersteg, with its 1,800 hectares of forest, is home to over a million larger trees. These include against $1,5 \times 10^{21}$ cells, which is already about one seventh of all 10^{22} stars.
Such numerical values indicate that "infinity" permeates our "finiteness".

Spirals

Nature is full of special features. For example, spirals can be found as impressive structures in leaf arrangements, tendrils, unfolding fern fronds, snail shells or a part of our inner ear. The genetic material DNA is even based on a double spiral.

Sources: 6, 23, 24

Middle Plantain

Leaves alternate, arranged spirally, very good light utilization

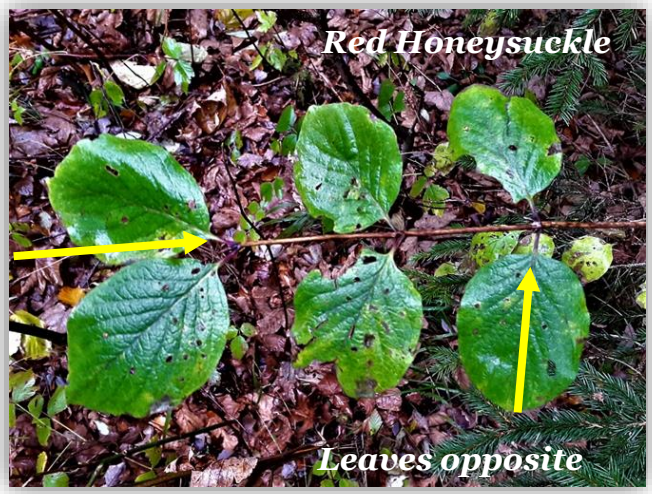
Cone scales arranged in two spirals

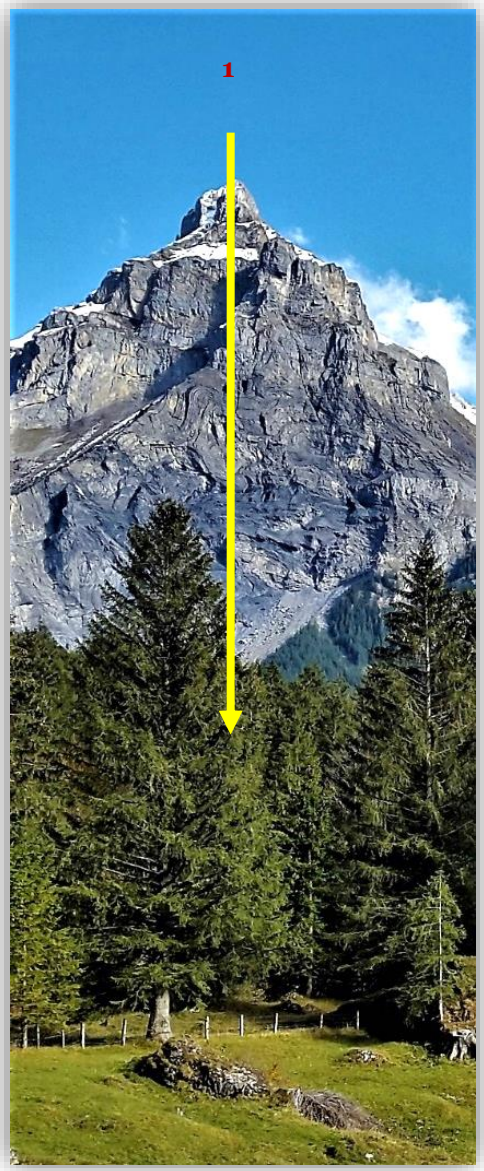
Symmetries

Source: 6

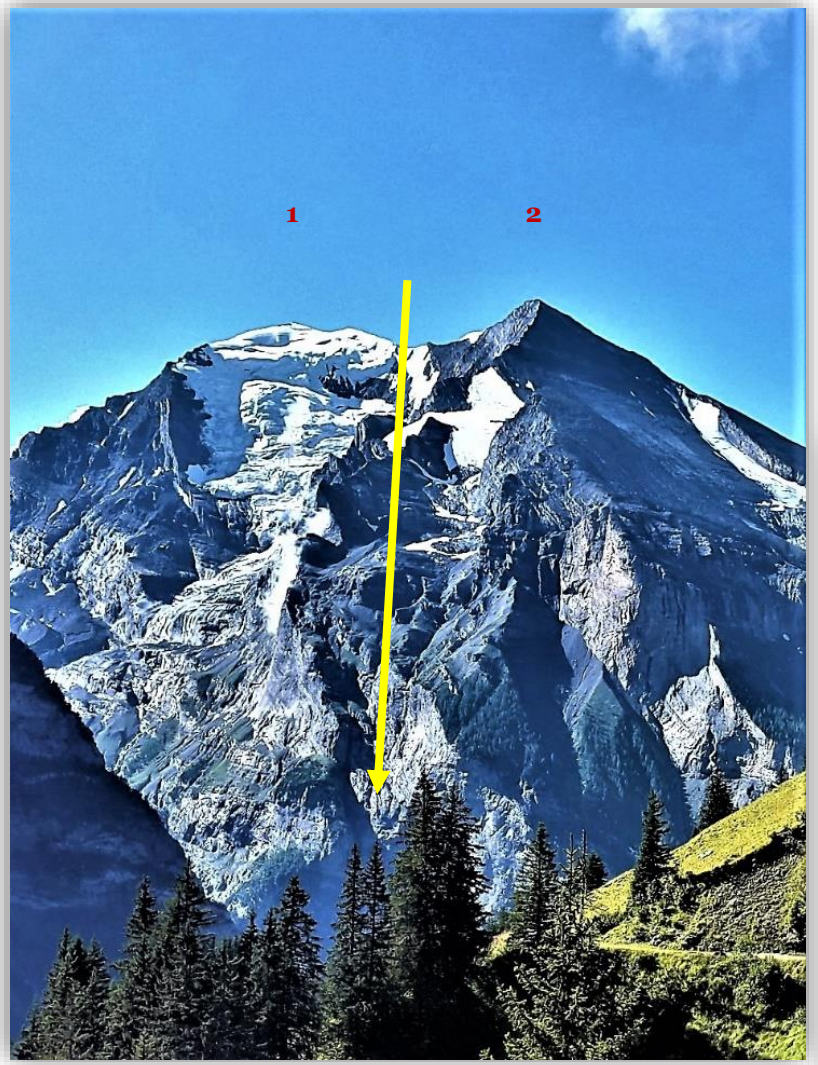
***Symmetries** also represent an aesthetic design.*

Yellow arrow: Axis of symmetry

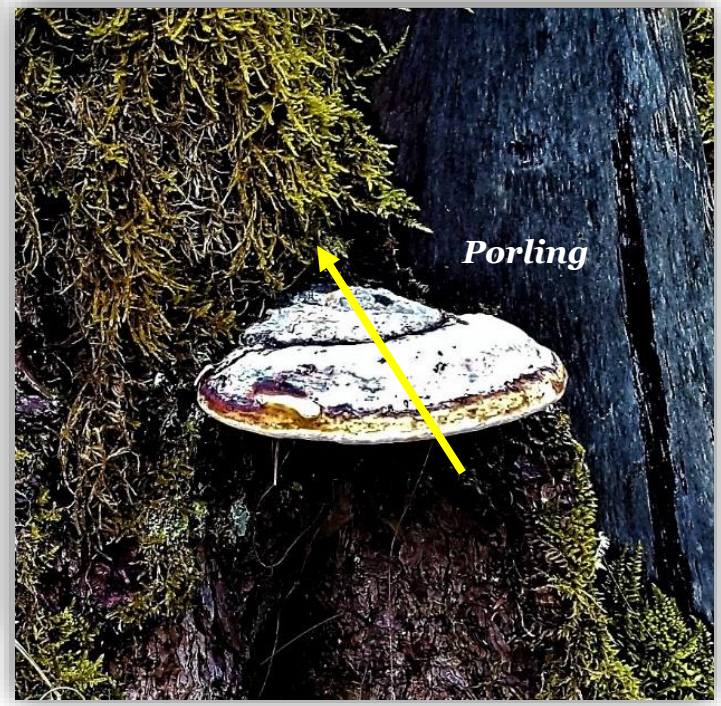


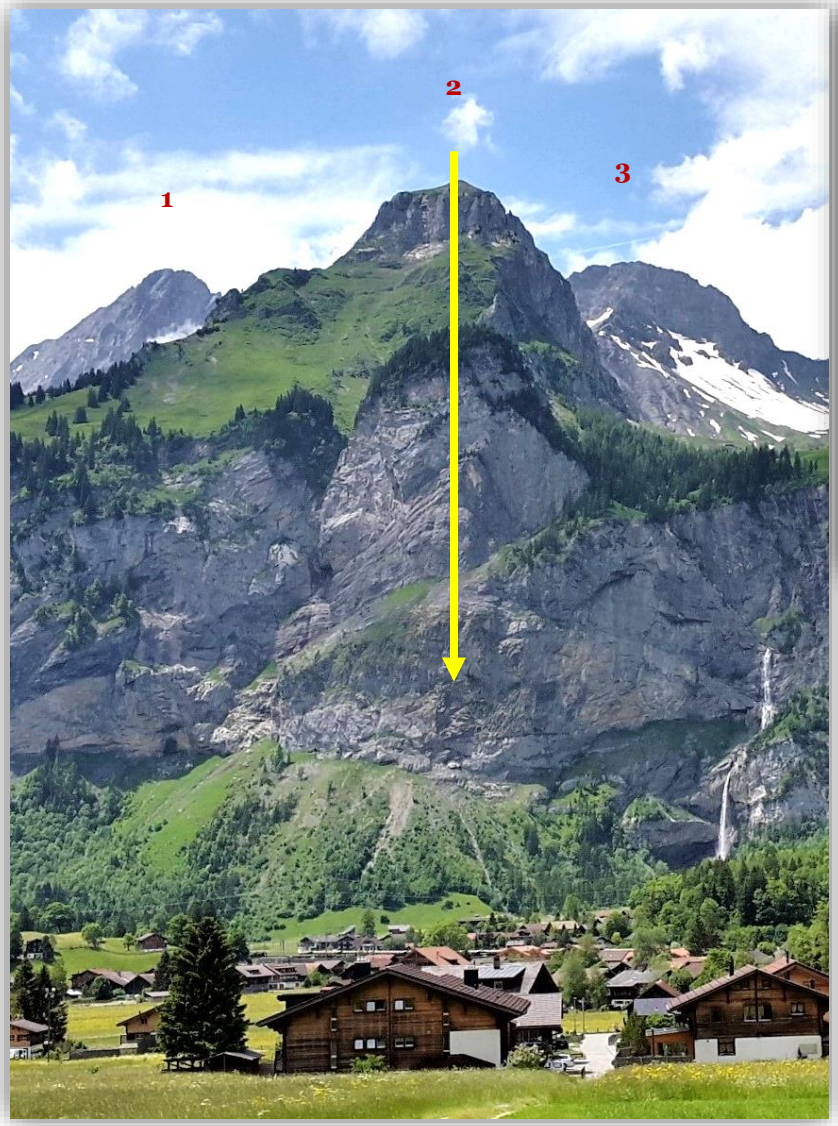


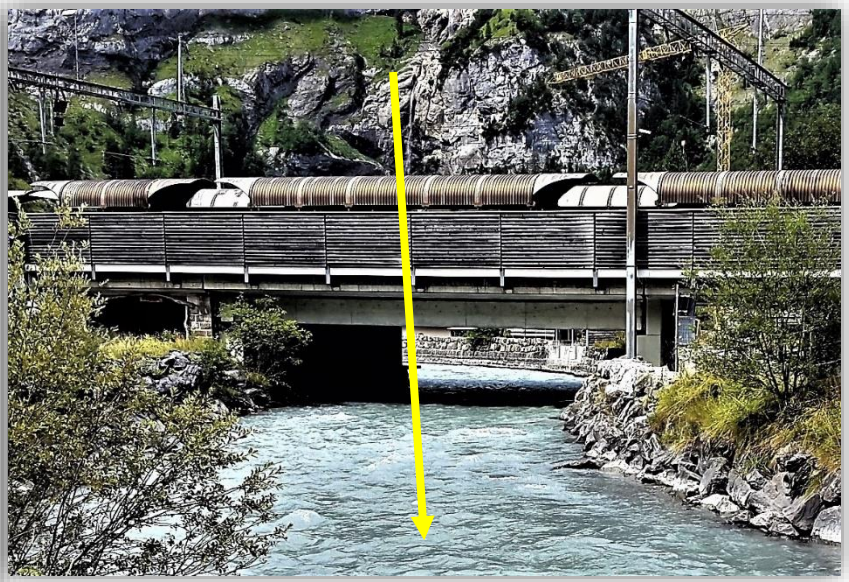
1 Bire 2,502 m



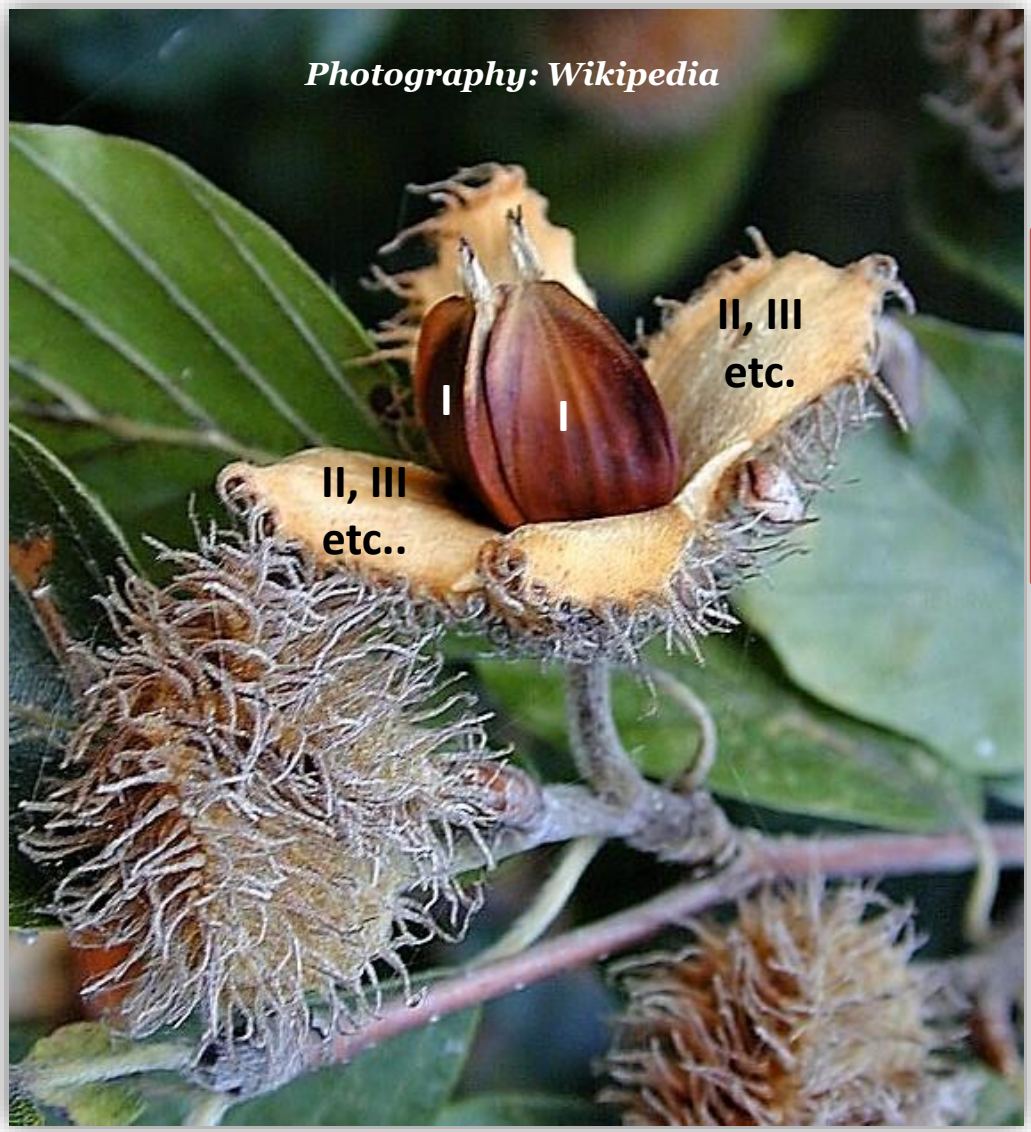
1 Balmhorn 3,698 m / 2 Altels 3,629 m





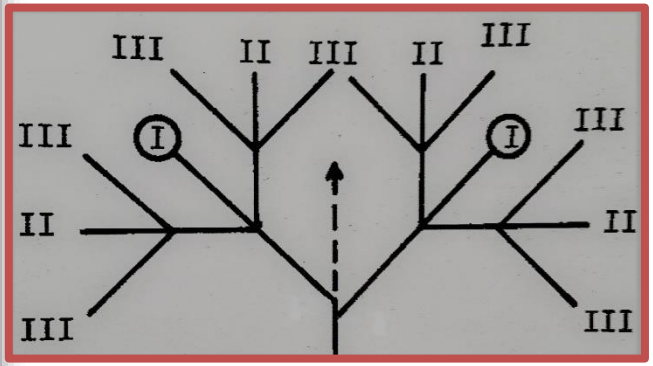


1 Gross Lohner 3,049 m / 2 Alpschelehubel 2,248 m
3 Chlyne Lohner 2,587 m



Symmetrical fractal

Source: 25



In the lower altitudes of Kandersteg, European beech is also found. Their inconspicuous fruit structures have very harmonious structures.

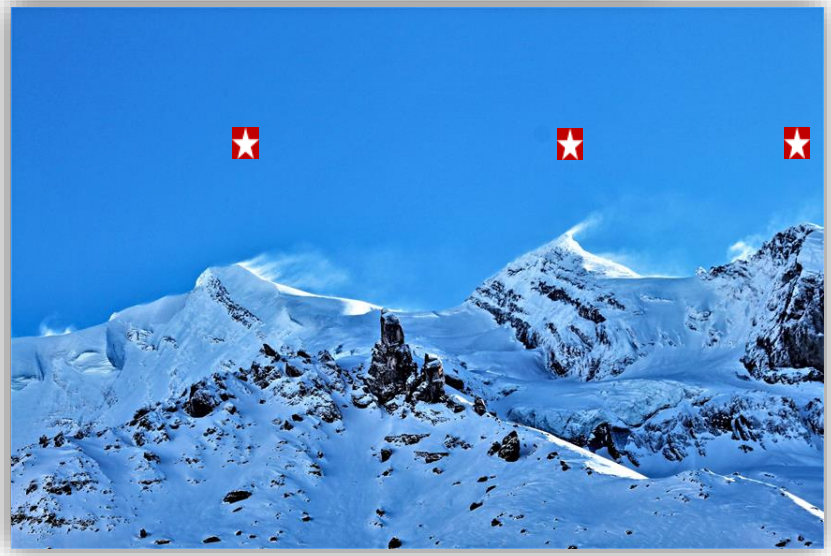
Two beechnuts (I) are surrounded by four flaps. One of these flaps is in turn composed of different axes (II, III, etc.) which are intertwined with each other.

Repetitions

Source: 6

Trinity

Sources: 3, 6



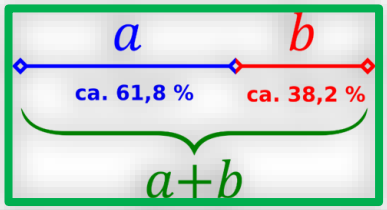
***Trinity** as an expression of a unity in nature or in garden design*

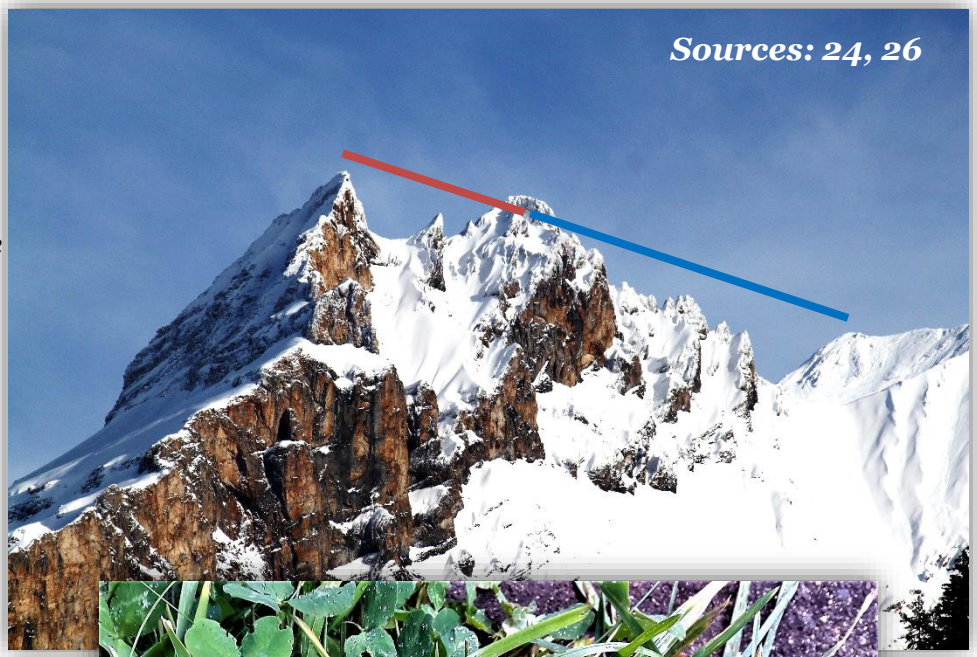
Golden ratio

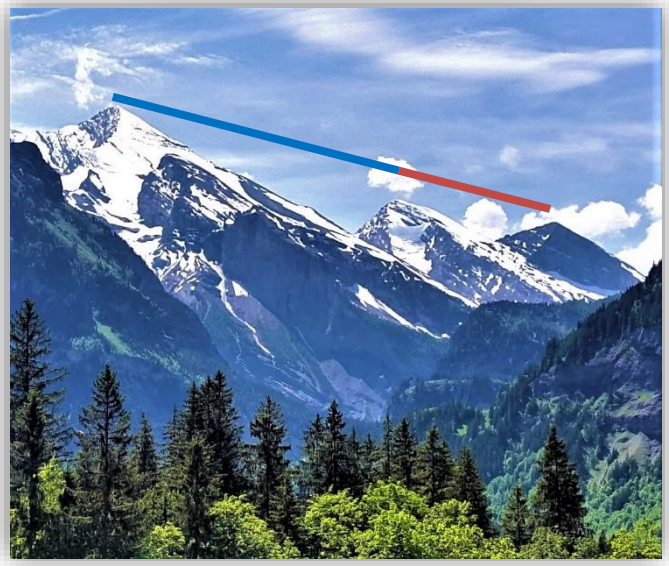
"Expression of balance"

A two-part route includes the golden ratio, if the ratio of the entire route to the larger part corresponds to the ratio of the larger to the smaller part:

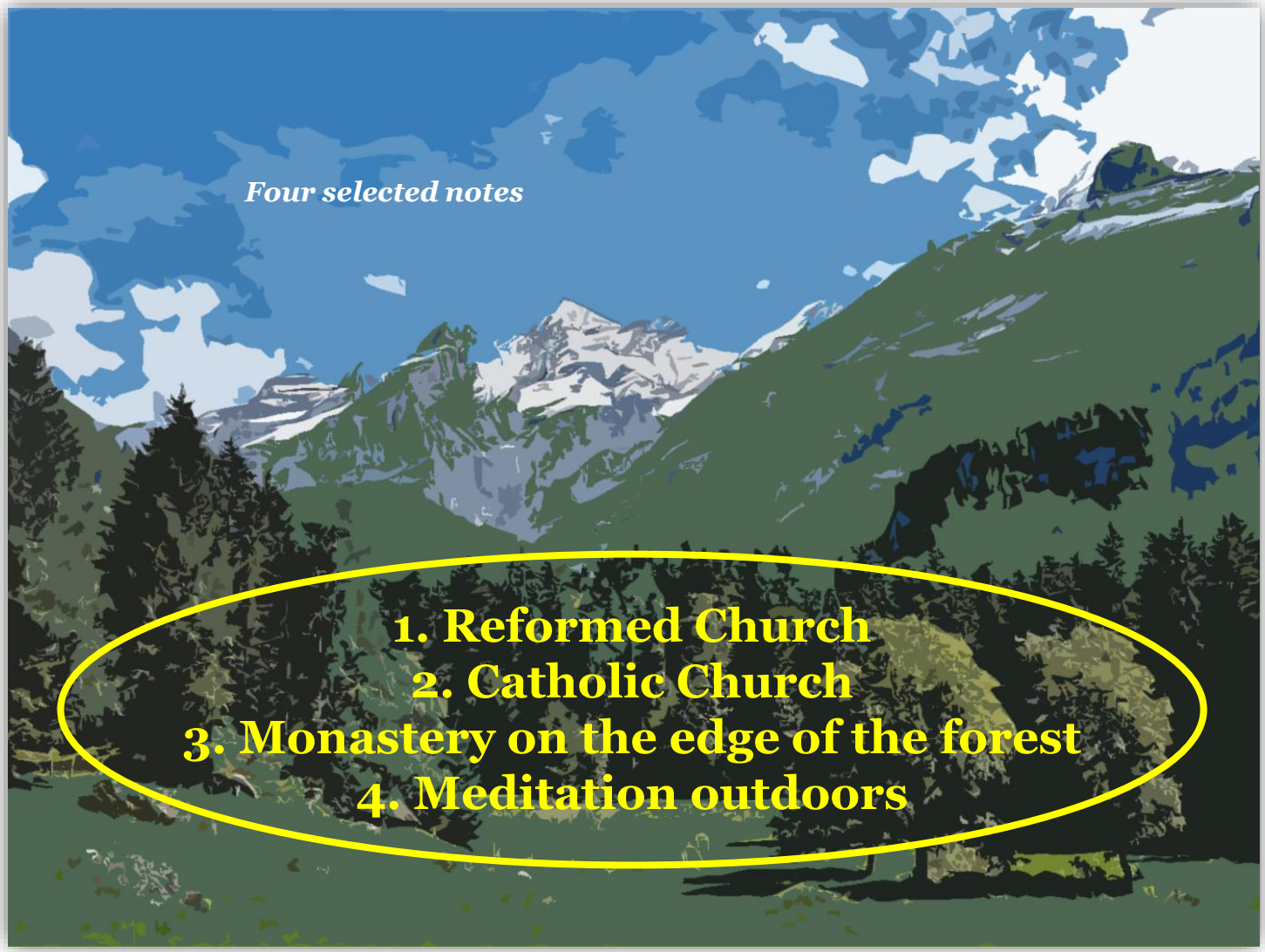
$$\varphi = (a+b) / a = a / b$$







6. Sense of life - religion



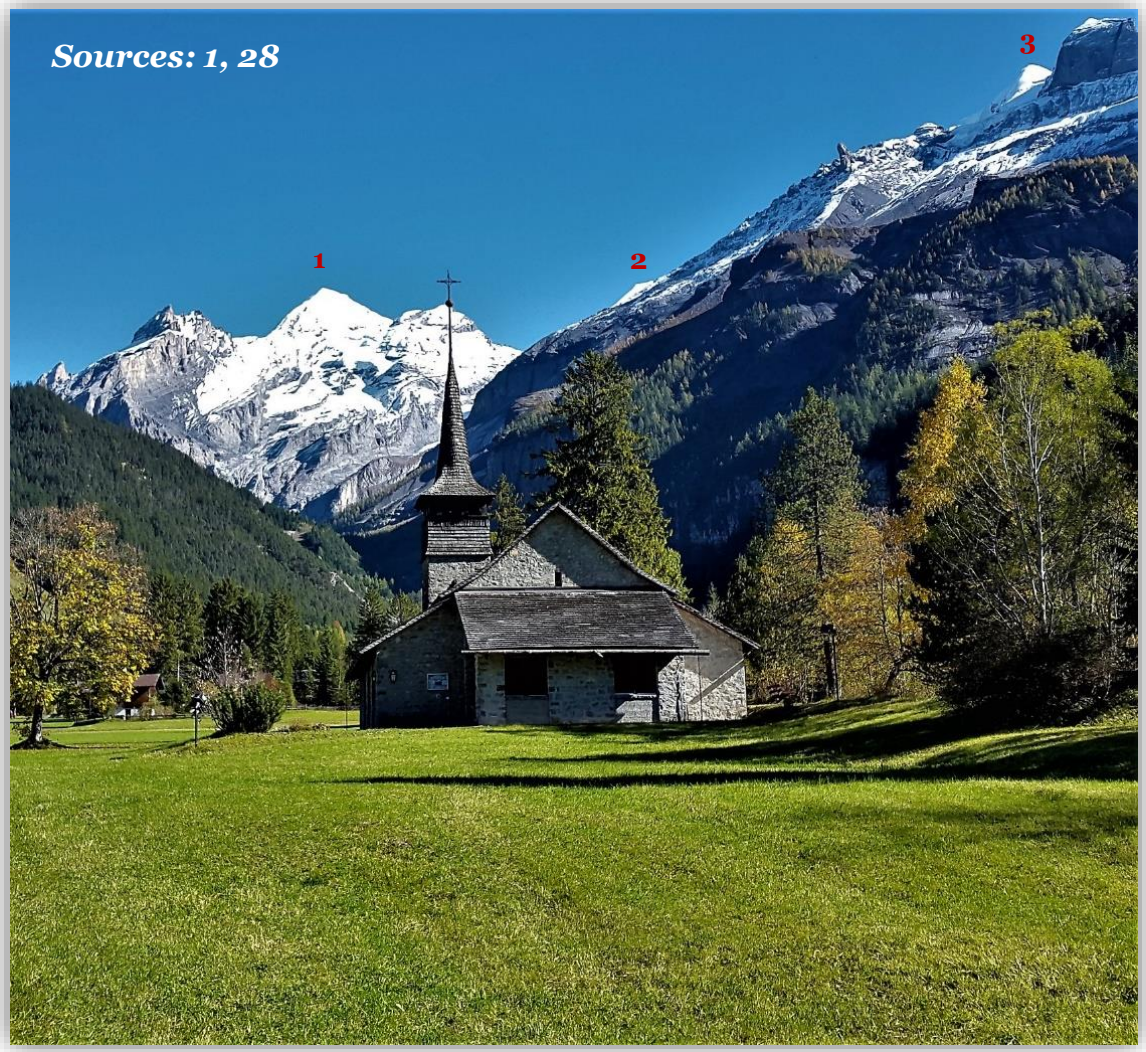
1. Reformed Church

Sources: 1, 27

The construction of the original Marienkapelle dates back to 1510. The Reformation was introduced in 1528. As a result, the chapel was continuously expanded.

Today there are many ways to meet like-minded and dissimilar people of all ages and to use them to search for answers to the meaning and richness of life or simply to cultivate the community.

2. Catholic Church



The Marienkirche was inaugurated in 1927.

In view of the imposing mountains, this invites you to stop. It points out the responsibility of man towards creation and tries to deepen personal faith.

Spirituality means being open to the mystery of God and his work in me, in other people and in nature. It is nourished from the sources of the Judeo-Christian tradition, but also open to dialogue with other religions.

1 Blüemlisalphorn 3,661 m / 2 Fründenhorn 3,369 m / 3 Doldenhorn 3,638 m

3. Monastery on the edge of the forest

Sources: 1, 29

The former Hotel Waldrand was built in 1906 during the construction of the railway.

This spacious chalet in Bütschels became the Buddhist monastery "Dhammapala" in 1992, which represents a place of spiritual practice.

A deeper understanding of the context of existence enables people to have an effective life orientation and thus increasingly happiness, clarity or inner freedom.

4. Meditation outdoors

Meditation is possible in Kandersteg in numerous wonderful places.
Questions about God, creation or meaning of life are probably in the foreground.

It makes sense, to consciously use as many sensory organs as possible, to get on the trail of "The Melody of Creation".

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