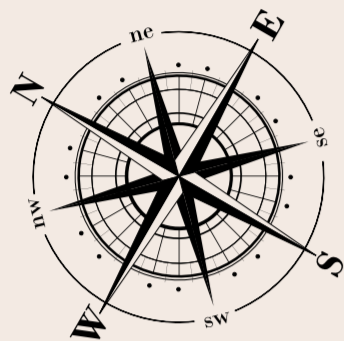


JOURNEY TO THE CENTER OF TIME



- ENTRANCE**
You will receive your entrance ticket at the historic ticket house. You can also buy your ticket online at www.gletschergarten.ch.
- OBSTACLE-FREE**
In the course of renovations, various areas such as the Mirror Maze or the new Felsenwelt were made obstacle-free.
- BISTRO SALWIDELI**
Regional and seasonal snacks.
- SHOP**
Souvenirs and gifts with style.
- PICNIC**
Snacks on the museum terrace.
- BACKPACK DEPOT**
- STROLLER DEPOT**
Behind the ticket house and by the backpack depot there is space for strollers and for scooters. (If you have any questions, please contact the museum attendants.)
- CAUTION DANGER OF FALLING**
The Glacier Garden was created during the 19th century from a quarry. Fall or stumbling dangers exist in the whole area. Please move with caution, do not leave the pathways. It is forbidden to climb or step over railings and barriers. Keep a close eye on children and young people.

1
GLACIAL POTHLES

20,000 years ago, Lucerne was covered by an 800 meters thick layer of ice. When the Reuss glacier melted, these 16 glacial potholes were formed. Their discovery led to the founding of the Glacier Garden in 1873.

2
SWISS CHALET

The museum is located in the former home of the founding family. It shows the diverse heritage of the family – with reliefs, geological and decorative items.

3
MIRROR MAZE

More than 50 mirrors depict the historic Alhambra of Granada in Southern Spain. The labyrinth was built in 1896 for the National Exhibition in Geneva and came to Lucerne in 1899.

4
FELSENWELT

The Lucerne sandstone is 20 million years old. The Felsenwelt leads through its history – through the primordial sea, across the subtropical palm beach, through the growing Alps and into the future.

5
ALPINE PARK

6
SANDSTONE PAVILION

The pavilion with a small cinema was built in 2021 from the excavated sandstone of the Felsenwelt. Here temporary exhibitions are shown.



For about 2.5 million years, both the Arctic and the Antarctic have been covered by an ice plate. This means that, in terms of geological history, we are living in an ice age, although it is not always consistently cold. It is assumed that the Alpine glaciers advanced more than ten times into the

Swiss midlands and covered the land with ice up to 800 meters thick. What Lucerne looked like during such an ice age is shown in the mural by Ernst Hodel, which can be seen in the **Sandstone Pavilion** [6]. When it got warmer, the glaciers retreated, leaving behind lakes, moraine hills, striations, boulders – and glacial potholes.

The 16 glacial potholes stand at the beginning of the Glacier Garden. Not only for the visitors who encounter them just behind the ticket booth. But also, historically: in 1872, the bank employee and wine merchant **Joseph Wilhelm Amrein-Troller** bought a meadowland in the former quarry next to the Lion Monument. He wanted to build a wine cellar there. But during blasting

operations he discovered a first glacier pot on November 2, 1872. The geologists **Albert Heim** [2] and **Franz Joseph Kaufmann** convinced him to preserve the natural monument. Together with his wife **Marie**, Amrein-Troller opened the Glacier Garden on May 1, 1873.

For a long time, there was a misconception about how glacial potholes were formed: they were formed by the rotational movements of the “grinding stones” lying in the pots, it was stated. The artificial “glacier mill” in the **glacier grotto** [5.3] was built on the basis of this misconception. Today we know that the glacial potholes were formed at the end of the Ice Age and surprisingly fast: namely by powerful streams of meltwater enriched with

gravel and sand, which swirled the pots into the sandstone within a few weeks.



In 1874, the **Amrein-Trollers** moved into their new home in the Glacier Garden. It was built in the then emerging Swiss chalet style, with typical wooden ornaments on the facade and the arbor. When **Joseph Wilhelm Amrein-Troller** died in 1881, his wife **Marie** took over the management of the complex and expanded the house

into a museum where she displayed her collection of geological objects, as well as furniture and decorative items. Today, **Maria Amrein-Troller** (1839–1941) greets visitors in the entrance from a portrait painting.

RELIEFS

The Swiss Chalet is home to an important collection of reliefs. The showpiece is the **relief of Urschweiz**, which was created between 1762 and 1786 and is considered to be the world's first large-scale three-dimensional representation of a mountain landscape. **Franz Ludwig von Pflyfer von Wyher** had succeeded in creating an extraordinary pioneering work: at a time when the first manned balloon flights were just

taking place, he enabled people to see the world from above. For years, **Pflyfer**, a former lieutenant general in the French army, had roamed the valleys and mountain ranges of the Swiss cantons and surveyed the landscape using the latest triangulation methods. He was the first topographer ever to systematically survey a larger area. And from wooden slats, pulverized



ALBERT HEIM

One of the most beautiful reliefs in the collection – that of the **Santis** – was made by the well-known Zurich geologist **Albert Heim** (1849–1937). He built it together with **Carl Meili**. Heim conducted research at the ETH Zurich on the formation of the Alps and devel-



BATTLE IN THE MUOTATAL



On the 1st floor of the Swiss Chalet is a mountain relief depicting the battle between Russian and French troops in 1799 in the Muotatal of Schwyz. It was made by the later **Captain Josef Sigmund Nideröst** from Schwyz, who had observed the fighting as a young man. The Russian **General Suworov** had crossed the Gotthard with 30,000 men to flank the French, who were fighting the Russians and Austrians near Zurich. He wanted to advance over the Kinzing Pass and through the Muotatal, but already there he ran into the French. The Russians had to retreat to the east, ending one of the most memorable Alpine crossings in the history of war.

CAVE BEAR

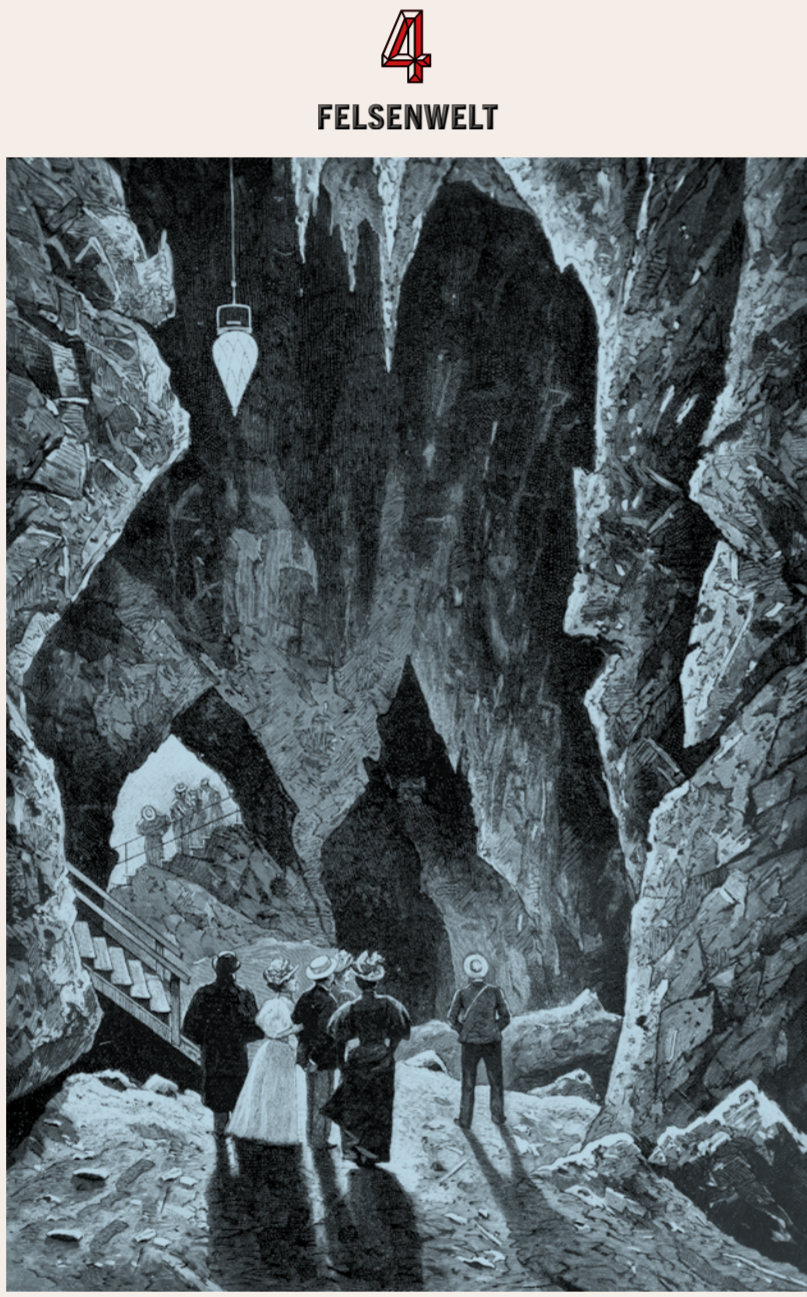


Wilhelm Amrein-Küpfer, son of the founding couple, managed the Glacier Garden together with his sister from 1919. He was enthusiastic about archaeology. On the Rigi, he discovered cave bear bones in the Steigelfad-balm cave. The **skeleton on display** [2], however, comes from various animals whose bones were found in the Mixnitz dragon cave near Graz in Austria.



The Anthropocene is also the Ego-ocene: Man dominates not only the world, but also himself. He observes, mirrors and optimizes himself. He sets out in search of himself – for somewhere it must be this center of time and the world. This can be happily pondered in the **Mirror Maze**, which was built in 1896 for the Swiss National Exhibition in Geneva, has been in the Glacier Garden since 1899, and in 2020 has been given a new entrance in the form of a finely sculpted truncated pyramid.

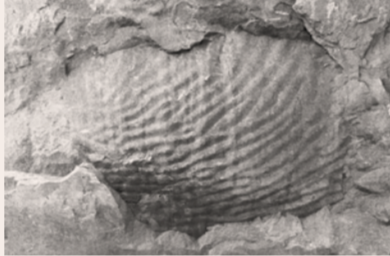
The labyrinth, with more than 50 mirrors, a lion fountain and a rose garden, is laid out as a model of the **Alhambra**, the magnificent Moorish-influenced city castle of Granada in Southern Spain. An old advertising poster for the labyrinth can be found on the first floor of the Swiss Chalet [2], as well as a postcard with the wax figure group around the Ethiopian emperor Melenik II, which was on display in the labyrinth during the National Exhibition.



FELSENWELT

THE HISTORY OF THE STONE

On the rock walls near the Lion Monument and in the Glacier Garden, the inclined layers of Lucerne sandstone can be easily observed. **The Felsenwelt**, built between 2018 and 2021, follows these natural structures: its walls are slanted at the same angle, and the joints in the rock determine the changes of direction that visitors take as they walk through the stone [4.1]. The concreted entrance to the Felsenwelt, also fits into the natural structure that was formed during the **formation of the Alps**.



The rock is about 20 million years old. Some of its components, however, are older than the Alps: its **zircons**, for example, existed on Earth a billion years ago. The Felsenwelt is densely pressed Earth history turned to stone. Visitors follow it through the winding corridors – all the way to the present, to the brief center of time.

During the excavation of the rock, the traces of the Earth's history, which were hidden until recently, were carefully uncovered: **remains of plants and animals** or **ripple marks**. These were formed in the shallow waters of the primordial sea by the tidal currents and remained intact for more than 20 million years. In the central part of the passage, an impressive **landscape harness** was also uncovered: an ensemble

of parallel landslide tracks that had formed between two rock layers during the folding of the Alps.

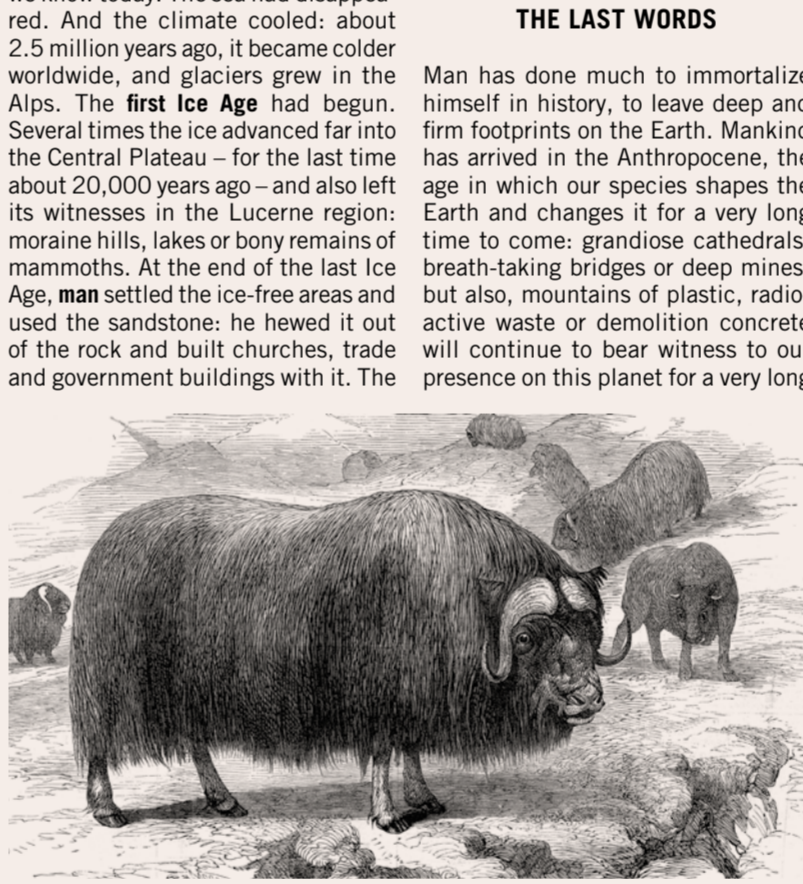
FROM THE SEA



20 million years ago, the Lucerne Sandstone lay at the bottom of a shallow outcrop of the **primordial Sea** (Tethys) that had formed between the rising Alps to the south and the Jura coast to the north. Thanks to the warm, humid climate, palms, ferns and cinnamon trees grew on the **beach**. Flamingos searched for shells in the



washed-up sand. Tusk elephants (ancestors of elephants), but also small rhinos, crocodiles, turtles and dragonflies lived in the lush swamps and grasslands of the rivers flowing down from the Alps. In the sea itself there were already the animals that we still know today: crabs, starfish, rays, sharks. Then the sand solidified under the load of always new sand and became stone. It was crumpled and folded by the tremendous forces acting between the Eurasian and African plates, finally lifted and erected into the **Alps** we know today. The sea had disappeared. And the climate cooled: about 2.5 million years ago, it became colder worldwide, and glaciers grew in the Alps. The **first Ice Age** had begun. Several times the ice advanced far into the Central Plateau – for the last time about 20,000 years ago – and also left its witnesses in the Lucerne region: moraine hills, lakes or bony remains of mammoths. At the end of the last Ice Age, **man** settled the ice-free areas and used the sandstone. He hewed it out of the rock and built churches, trade and government buildings with it. The



seabed had become rock, mountains, and finally a city.

IN THE CENTER OF TIME

In the lowest point of the Felsenwelt lies the **rock lake** [4.2]. It marks the present. It is, measured by the earth-historical time dimensions, an infinitesimal present: a tiny midpoint of time between past and future. While the forces of nature are inexorable, the presence of every human being here is short and fleeting.

THE LAST WORDS

Man has done much to immortalize himself in history, to leave deep and firm footprints on the Earth. Mankind has arrived in the Anthropocene, the age in which our species shapes the Earth and changes it for a very long time to come: grandiose cathedrals, breath-taking bridges or deep mines; but also, mountains of plastic, radioactive waste or demolition concrete will continue to bear witness to our presence on this planet for a very long



time. This future can be seen in the ascent through the **Gartenhof** [4.3] up to the **Sommerau** [5.7]. But did you know what will remain of mankind for the very longest time? Ironically, it is something very fleeting; it is his words and sounds that go into space as radio waves and will be the last thing that will still be there of man. Therefore, leave also you a lasting trace in the Universe. Speak or sing your very personal message into our **cosmophone**. We will send it out in space.

FOSSIL WITNESSES

Outside the Felsenwelt too, numerous witnesses of the local prehistory can be found in the Glacier Garden. **Traces of polished stone and erratic blocks** – boulders from the Alps that were carried by the Reuss glacier into what is now the city – date back to the ice ages, when the region was covered with a layer of ice up to 800 meters high. In contrast, the **ripple marks**, i.e. the wave-like structures that can be seen on the rock faces of the Glacier Garden and the Lion Monument, tell of the subtropical past at the primordial sea. The fossilized imprint of a leaf of the **Trachycarpus palm** and a **mussel bank** also come directly from the Lucerne seashore: the carpet

shells (which similarly still occur in the Mediterranean today) lived in the shallow coastal area, where they burrowed into the sand. During strong tidal currents and storms, they were pushed together to form so-called mussel shell, which later became the mussel bank.

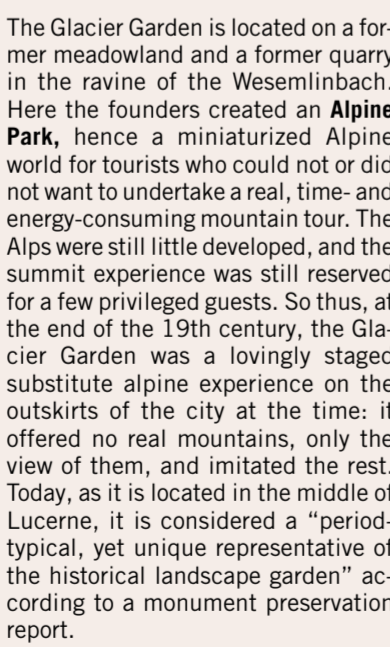


WALL PAINTING

Two large murals, on view in the **Sandstone Pavilion** [6], show what Lucerne might once have looked like: **Ernst Hodel** painted the view from Lucerne of the mighty Reuss glacier in 1926/27. Mammoths feed on the sparse pioneer vegetation that grows on the ice-free areas. In 1968, **Ernst Maass** painted the subtropical past at the primordial sea. The fossilized imprint of a leaf of the **Trachycarpus palm** and a **mussel bank** also come directly from the Lucerne seashore: the carpet



ALPINE PARK



The park is laid out as an alpine circuit in an eventful topography between rock, brook gorge and green meadow. In 1897, the Glacier Garden opened a

chamois park. But the chamois did not feel comfortable near the city. Therefore, the park was soon redesigned and changed to alpine flora. There are plants here that are otherwise only found in the mountains, but also a large collection of ferns and willows. Below the large pond there is also a special erratic boulder from the Ice Age, the so-called **Dropstone**: the mas-



sive boulder from the central granite mountains of the Alps traveled on an iceberg across Lake Lucerne at the end of the last Ice Age. When the iceberg melted, the stone sank to the bottom of the lake. There it was found and recovered in 1980 during the construction of the west wing of the Lucerne train station.

THROUGH THE PARK

Visitors walk through the **park on a mule track** [5.1], which, similar to a mountain hike, becomes steeper and steeper. At first it leads comfortably up to an **alpine hut** [5.2], which represents the lovely and habitable part of the Alps. After that, the path becomes more difficult. It leads past the **waterfall** and rock walls up to the **Alpine view** [5.6]. Here one overlooks the city of Lucerne, its local mountain Pilatus

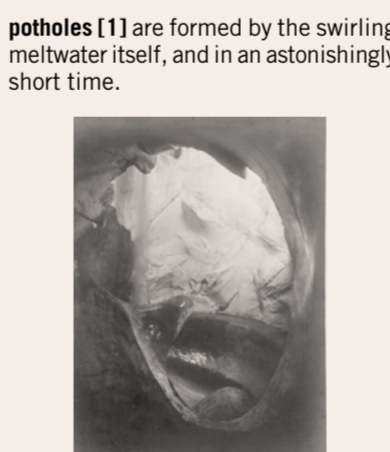


GLACIER GROTTO

How are **glacial potholes** [1] formed? Until far into the 20th century there were ideas about this, which are wrong from today's point of view. Because large round stones were found at the bottom of the pots, it was believed that these “grinding stones”, driven by a steady stream of water, slowly and steadily hollowed out the pots. To show the public how such a “**glacier mill**” worked, **Xaver Imfeld**, an engineer and topographer from the Obwald, built an **artificial model** [5.3], which he flooded with water from the Wesemlin-bach stream. The “stone” moves, however, only because it is hollow and light. Today we know that the **glacial**



and the nearby Alpine chain. Through the amazing time telescope, you can experience the formation, modeling and future of Central Switzerland up close. The trail continues to the **oldest wooden lookout tower** [5.5] of Switzerland. In the **Gartenhof** [4.3] the gorge opens down into the **Felsenwelt** [4]. At



potholes [1] are formed by the swirling meltwater itself, and in an astonishingly short time.



GLACIER DIORAMA

Also by **Xaver Imfeld** is the **log cabin** [5.4] encountered about halfway up the climb to the Sommerau. Built in 1896, it is a replica of a **Swiss Alpine Club (SAC) refuge** from that time. It shows how simply such huts were built and furnished in those days. Even more amazing is the view of the **Görner Glacier** in the canton of Valais, which opens up from the hut in its mighty expanse of about 1850, around the end of the Little Ice Age. But, of course, the view is an illusion, the result, in fact, of a carefully executed



3-D diorama, such as only a few remain in Switzerland. (Some of them can be discovered in the immediate vicinity of the Glacier Garden and Lion Monument in the “Alpineum”). These mountain dioramas were also intended to provide tourists in the cities with an inexpensive and safe mountain experience. At a time when there were only very few mountain railroads, three-dimensional dioramas offered non-mountaineers a real and best possible approach to the mountains and the thrill of high altitude.



SANDSTONE PAVILION

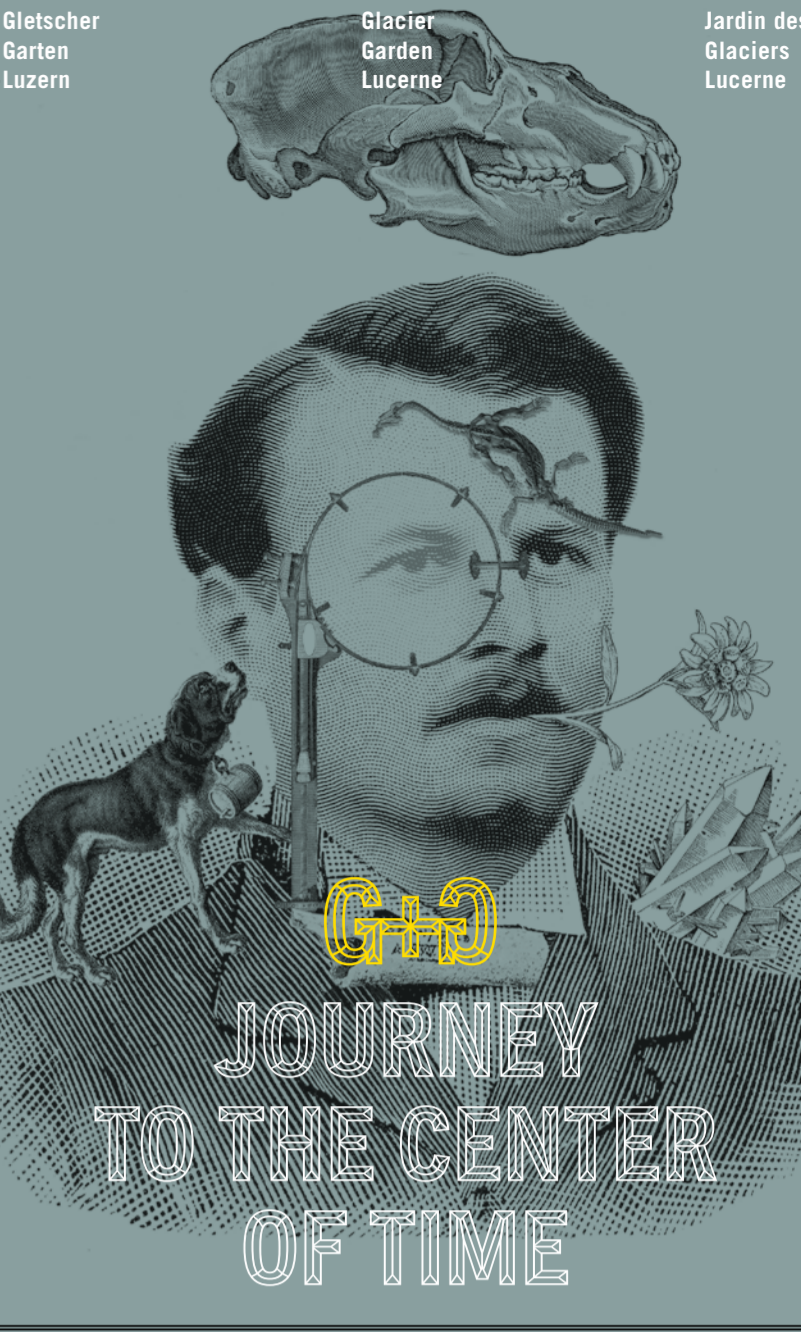
During the remodeling of the Glacier Garden from 2018 to 2021, disturbing additions were removed, and the Swiss Chalet was restored to its original condition. The lost exhibition space is replaced in the **new Sandstone Pavilion**. It provides space for both **special exhibitions** [6.2] and a **small cinema** [6.1].

Half of the pavilion is made of sandstone, which was quarried during the excavation of the Felsenwelt. In a way, it is the rock turned inside out, which is also visible in its shape. In the sense of a closed material cycle, the rock material was mixed with the concrete (the seat walls in the park show the composition of the concrete very nicely). The pavilion thus also stands for a piece of the city's history: until 1900, Lucerne sandstone – from the quarries near the Lion Monument and



the Glacier Garden – was the most important building material in the city, along with wood. The inner shell of the building is made of a wooden construction.

The pavilion also houses **two large murals** that show what Lucerne looked like 20 million years ago and during the last Ice Age.



JOURNEY TO THE CENTER OF TIME

The Glacier Garden opened on May 1, 1873, in a former sandstone quarry on the outskirts of Lucerne. At that time, the city was experiencing a tremendous surge of modernization. In 1859, the railroad station had opened, and Lucerne was connected to the Swiss rail network. The city was rebuilt for tourism: the spacious quayside facilities on the right bank of the lake had been completed since 1871, and now one fashionable hotel after another attracted guests from abroad: Schweizerhof (1845), National (1870), Europe (1875), Palace (1906). In 1882, the Gotthard Railway was opened, and Lucerne became a major hub on the European north-south route. The first steamships sailed on Lake Lucerne.

Located right next to the Lion Monument, the Glacier Garden was one of the first tourist attractions in Lucerne. With its glacial potholes, its Alpine Park and its artificial mountain experiences, it offered more than a bad-weather program. For the mountains were still hardly accessible to most tourists. Although Europe's first mountain railroad had been running up the Rigi since 1871, other railroads existed – if at all – only on the drawing board: the cogwheel railroad up the Pilatus was opened in 1889, the Stanserhornbahn in 1893 and the railroad to Engelberg in 1898. Thus, a tourism hotspot was created at Lucerne's Löwenplatz for all those who were enthusiastic about the mountains but shied away from the efforts and dangers of an ascent. It included the Glacier Garden, the Lion Monument, Ludwig Meyer's mountain dioramas, Samuel Stauffer's stuffed animal groups and, from 1881, the Bourbaki Panorama.

The Glacier Garden is a witness to this pioneering tourist era. It offered substitute alpine experiences, easily accessible and in the middle of the city. It was dedicated to science, but also served the enthusiasm for nature and the Alps that had gripped Western Europe during the Romantic period. It was the time when the mountain world lost its threat. On the contrary, the mountains were now considered pristine, their inhabitants unspoiled and genuine. In Switzerland, the culture of the “shepherds” cemented a young nation that was rapidly industrializing: alpine blowing, yodeling and swinging were rediscovered. And the Alps became a myth – a place that offered protection from foreign influences and armies. Although the Swiss national exhibitions from 1896 to 1939 took place in the cities of Geneva, Bern and Zurich, they staged Switzerland as a country of mountains and mountain people.

The Glacier Garden illustrates all of this. About the glaciers, but also about the garden of imagination, where the glaciers mean Switzerland.

SERVICE



BISTRO SALWIDELI AND SHOP

The bistro offers drinks and snacks selected according to regional and seasonal criteria. The Glacier Garden works with local partners in the neighborhood and in the canton of Lucerne. There is also a partnership with the Entlebuch Biosphere and the Salwidi mountain inn in Sörenberg. A carefully selected range of souvenirs is available in the store.

GUIDED TOURS

On request, we are happy to organize guided tours of the Glacier Garden for school classes, companies and associations, adapting to individual wishes. Possible topics are Glacier & Climate, the Lion Monument, the history of the Glacier Garden, but also landscape relief and cartography. More information at: www.gletschergarten.ch.

EVENT LOCATION

The Glacier Garden with its bistro is the perfect place for your event. The picturesque Swiss Chalet, the impressive glacial potholes, the mysterious Felsenwelt and the green park provide a magnificent and inspiring atmosphere in the middle of the city of Lucerne. For your event, you can rent different spaces and venues. Contact us via gletschergarten.ch or info@gletschergarten.ch.

FORUM

In the Glacier Garden Forum, friends of the Glacier Garden meet for lectures, vernissages and excursions. In addition, the Forum is committed ideally and financially to projects of the Glacier Garden. Information on membership on: www.gletschergarten.ch.