GETTING BIGGER AND BIGGER

In the display which runs from the entry to the middle of the room, you can trace the following journey from particle > atom > crystal > mineral rock > earth > meteorite > solar system.

Atoms are composed of elementary particles. Some radioactive atoms emit these particles as they spontaneously desintegrate, allowing us to observe them. Crystals are formed from atoms which are regularly arranged in space.

In crystals, the microscopic order is seen externally in the geometric forms, the smooth ridges and the even faces. Crystals are everywhere (rocks, minerals, metals, medicines, bones, teeth, clay, sugar etc.).

Minerals are natural crystals which are useful for the development of civilizations. Metals and other construction materials are extracted from crystals. Precious gems are also minerals.

Rocks, meteorites, the Earth and all planetary objects are made up of a blend of minerals.

THE MAGIC OF FLUORESCENCE

A fluorescent substance has the ability to transform instantaneously luminous energy and invisible UV rays into a form of visible light. The german poet Goethe, a passionate mineral collector, performed an experiment wherein beams of lights, differently coloured by a set of filters, were projected onto a piece of baryte but only the violet coloured light triggered the luminescence of the stone, not the red, yellow or green lights. Nearly 330 types of mineral are fluorescent and 40 of these can be seen in the Museum's exhibition :

White calcite – becomes red or yellowish

Blue or green fluorite – becomes violet

White meionite – becomes bright yellow

REGIONAL GEOLOGY

Outstanding fossils, minerals and rocks guide you across the geological evolution of our regions through time, starting 1.2 billion years ago.

METEORITES

This 120 kg fragment on display is one of the biggest that made up the meteorite Gibeon, which landed in Namibia.
«Martienne SNC» was ejected from the floor of Mars following impact by an asteroid.
In 1901, near the village of La Chervettaz (12 km from Lausanne!) some lumberjacks were nearly hit by a meteorite which is now displayed together with a branch it broke.

PRECIOUS GEMS

Gems are natural mineral substances which are used in jewellery and which have three essential characteristics – they are beautiful, rare and durable.

CRYSTALS FROM THE ALPS

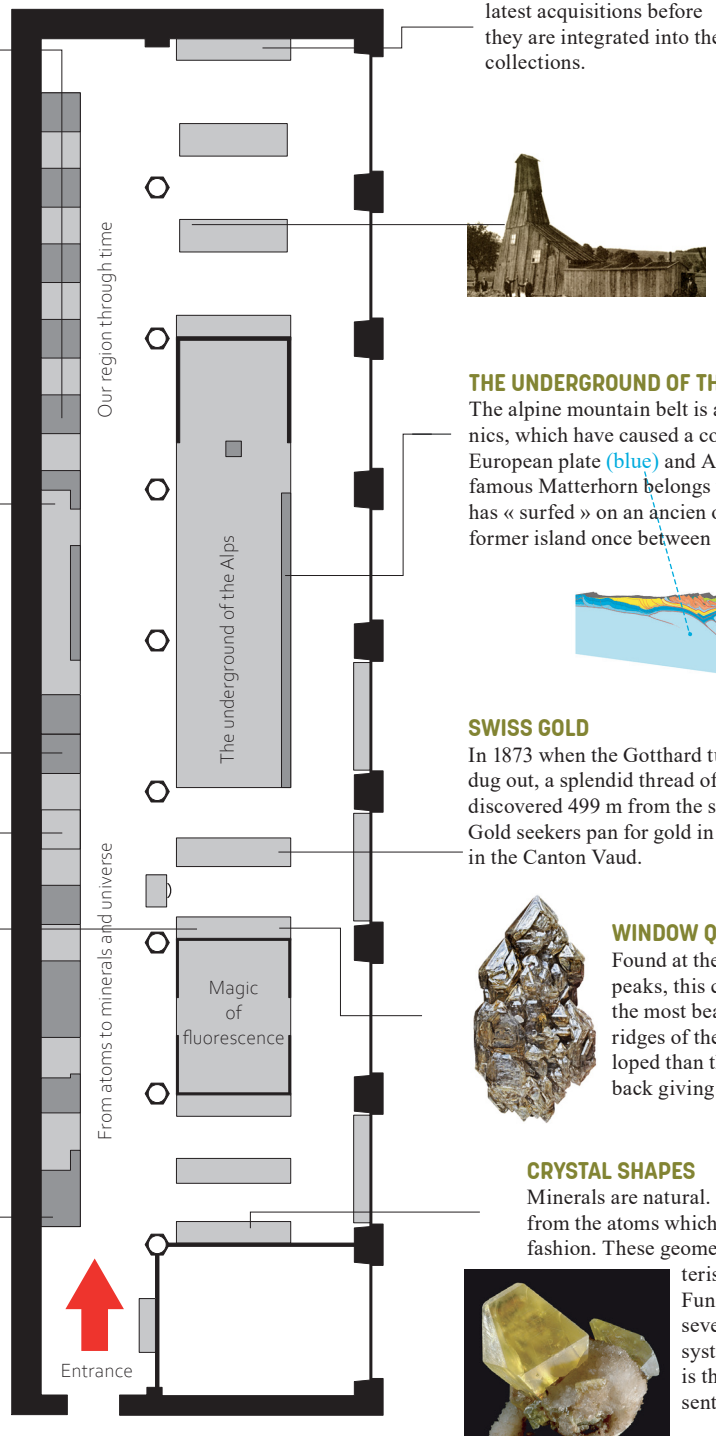
Swiss Alps provide a splendid variety of gem-quality crystals : red and green fluorite, apatite (the same mineral as our teeth enamel !), deep blue kyanite and smoky quartz. The Alpine range give us as well some "small giant" minerals: a green vesuvianite, two zircons from Tessin, a kind of orthose called adulaire or a smoky quartz from the Mont Blanc.
The growth speed of a quartz exhibited here has even been estimated : as much as 5 million years for a 25 cm length.

GIANT AMETHYST

With the opening of the South Atlantic ocean separating South America and Africa, around 130 million years ago, great quantities of basaltic magma poured out of the heart of the Earth. The lava contained cavities filled with pressurized gas and very hot water, saturated with dissolved silica. As the volcanic rock slowly cooled down, violet quartz crystals grew on the walls of the cavity left behind.

HALL E. RENEVIER

Mineralogy and regional geology /



LATEST ACQUISITIONS

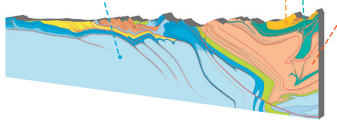
This display highlights our latest acquisitions before they are integrated into the collections.

OIL FROM THE CANTON VAUD

The «Vaud Petrol Consortium» was founded in 1912 to carry out the two first drills for oil in Switzerland. The extracted volume was very modest. Geologists used to say that «the canton is rich in poor natural resources».

THE UNDERGROUND OF THE ALPS

The alpine mountain belt is a consequence of plate tectonics, which have caused a collision between European plate (blue) and African plate (yellow).The famous Matterhorn belongs to this African plate which has « surfed » on an ancien oceanic floor (green).A former island once between Europe and Africa is in red.



SWISS GOLD

In 1873 when the Gotthard tunnel was dug out, a splendid thread of gold was discovered 499 m from the south entrance. Gold seekers pan for gold in many rivers in the Canton Vaud.

WINDOW QUARTZ

Found at the foot of the Dents-du-Midi peaks, this complex crystal is one of the most beautiful found in the Alps. The ridges of the crystal are much more developed than the faces. The faces appear set back giving the appearance of a window.

CRYSTAL SHAPES

Minerals are natural. They get their form from the atoms which stack up in a regular fashion. These geometric forms are characteristic of each mineral. Fundamentally, there are seven different crystalline systems. The most simple is the cubic system represented by any salt crystal.