Cross-country ski area
Nature

The surrounding forests

Norway Spruce
Climate conditions are getting worse and worse while one is climbing up the mountain. The representatives of the living world have to cope with these severe conditions. Lots of species fall behind in this struggle of the best fitted because they aren't able to adapt to an environment getting more and more demanding.
Norway Spruces rank among those species that give up last.
In snowy regions mainly, the boreal mountain conditions force these trees to take a column form. Branches usually are shortened and pressed against the trunk so that snow falls down immediately in order to avoid overload of the branches.

Norway Spruces supply excellent wood and stop respiration under -4 C°. In that way, the tree is able to resist to extreme cold. The annual increase of wood is very slow, on the scale of some millimetres. By that, the tree is given mechanical qualities desired in particularly by carpenters and instrument makers using the wood to fabricate the sound boxes of stringed instruments.

Dear tourist,
let us listen to this prayer that the forest addresses to us:

Homme ! Je suis la chaleur de ton foyer
par les nuits froides de l'hiver,
l'ombrage ami lorsque brûle le soleil d'été.
Je suis la charpente de ta maison,
la planche de ta table.
Je suis le lit dans lequel tu dors
et le bois dont tu fais tes navires.
Je suis le manche de ta houe
et la porte de ton enclos.
Je suis le bois de ton berceau
et de ton cercueil.
Je suis le pain de la bonté, la fleur de la
beauté ; écoute ma prière, ne me détruit pas.

Text found on the door of the Yugoslavian wood pavilion at the international exhibition in 1937.

Competitions in cross-country skiing and biathlon at the Olympic games

In February 1992, the competitions in cross-country skiing and biathlon took place in Les Saisies.
Sixteen races has been organized in Les Saisies:

- 6 biathlon
- 10 cross-country skiing

78 medals has been awarded to:

- 30 biathletes
- 48 cross-country skiers

Construction of facilities such as trails or the biathlon stadium respect the protected area of the nearby moor with the aim of preserving its specific hydrology and numerous rare species occurring in the ecosystem.

The trails converge to giant Olympic rings which allow competitors to pass by several times while 12.000 spectators in the stadium admire their performance.
Once the work is done, local plant species are planted as means of revegetating the area.
Today, 100 km of trails are maintained and groomed in order to offer winter activities for all.

- The biathlon stadium,
- 5, 7 and 10 km of groomed trails,
- and early snowfall in Les Saisies

provide lots of possibilities for competitions and attract many national teams like Sweden, Italy, Norway or England.

Dear skier, cross-country skiing is an ancestral custom way beyond all modern trends. On your skis, you can venture out to discover our beautiful alpine landscape, its natural treasures and values men are attached to, while enjoying the pleasure to slide on a thick blanket of snow…

The moor of Les Saisies

The history of the moor goes back to the post-glacial period.
12.000 years ago, the retreat of the quaternary glaciers makes room for numerous depressions collecting the melting waters. Some of these water basins, well oxygenated by wild waters, constitute our alpine lakes and their scenic beauty.
However, moors need calm and poorly oxygenated water to develop. Locally, these waters are submitted to cold and humid climate conditions close to those in the arctic tundra.
Here, the altitude of about 1500 m compensates the latitude. The consequence is a process of very slow evolution. Water is at the beginning of this process and the formation of a forest at its end.

The acid moor of Les Saisies
The waters acidified while being in contact with crystalline rock of our mountains. Plants have some difficulties to conquest these mountains because only few of them are adapted. Among the most adapted rank different sphagnum species which constitute a real living sponge. They are able to retain huge quantities of water and to colonize progressively these aquatic milieus. Growing slowly from the border to the centre of the lake, they'll finally cover all the water surface.

Formation of peat
Since the sphagnum has now roots, it continues growing on the surface while the immerged parts of the plant are decomposed slowly. The decomposition process finally forms the peat, a real organic rock used as fuel in former times.

The moor – a real island of boreal life – provides home for many plants. Some of them are amazing like the "sundew" (*Drosera sp.*) which became carnivore in order to compensate the lack of nitrogen in the soil on which the plant is growing. Wildlife in the moor is as divers as the flora. Let's discover on these pictures some guests of our moor.

There are many dangerous holes in the moor. For your own safety, please stay on the trails. You help us to preserve wildlife and flora of the biotope.

Astonished, the child contemplates the glistening snowflakes with a smile on the face…
Snow is falling !

Snow.
Snow ?

It's the history of a frosty meeting.
Inside the clouds, (mineral or other) micro particles are floating among thousand of millions supercooled water droplets; that is water below freezing point, but still liquid at temperatures between -12 et -40 C°. These minute particles or freezing nuclei provide a structure on which water molecules can start condensing to form a snow crystal.

Snow falls almost all over the world … may there exist somewhere two identical crystals ?
The shape and the growth of snow crystals depend strongly on the hygrometry, the temperature and the specific pressure of each strata to be crossed by the water droplets when they fall.
When a few snow crystals stuck together, they form snow flakes.

If the temperature at the soil is below zero, all the snowflakes deposed on the ground during the snowfalls will constitute the snow cover.
The metamorphism of the snow cover depends on temperatures, hygrometry and mechanical forces. Once the nice weather is back, the snowflakes become liquid again by sublimation and melting processes.

Does these severe conditions really encourage life in the mountains?

Dear tourist, let us take a closer look to the living conditions in winter…

Snow and life in the mountains

Snow determines life in the mountains. Everybody is forced to adapt to the rude climate.

- the vegetation period is getting shorter
- the wildlife has difficulties to find something to eat
- domestic animals find shelter in the farm
- farmers are obliged to work hard during the short summer: making and storing hay, cutting firewood …

Snow and skiing
Every day, our caterpillar drivers shape the snow: cutting, compacting, profiling…every morning or evening, after all runs are closed. So, just take your skis and sample the white pleasures! …

… at the same time, the snow continues its metamorphism depending on how the characteristics of the air masses will evolve…

Basic classification of solid precipitation forms:

- snow crystals
  - Plates between -10 and -20 C°
  - Stellar dendrites with six branches between -15 and -18 C°
  - Hollow columns between -10 and -13 C°
  - Thin ice needles between -4 and -8 C°
  - Capped columns below -18 C°
  - Spatial dendrites developed in all planes around the nucleus
  - Irregular particles without determined geometry
  - Graupel and soft hail: ice pellets aspect
- Ice grains
  - Ice grain
  - Hailstone formed in huge cumulonimbi

Black grouse
Like the domestic hen, black grouses belong to the family of the galliformes.
This family includes as well

- ptarmigans
- hazel-grouses
- capercailzies

Black grouses have a tail in the form of a lyre. The French name “tétras lyre” refers to these special feathers.

The way of life of a black grouse

From November trough march: a long hibernation
Black grouses are spending 90 % of the winter resting in the snow. They choose flat slopes directed usually towards the north in order to survive the winter time. The grouse burrows a den into the snow to protect itself against the rude weather conditions.

From April through May: the parades
The parades take place in a so called arena: places chosen by the birds in order to perform their concerts. In spring, the cocks gather together quite before sunrise and sing throughout almost all the morning. The females (hens) visit the arenas for two or three weeks in the middle of May. The pairings take generally place between may 20 and 31.

From the beginning of June to the beginning of July: egg deposition and breeding
A hen usually lays 5 to 10 eggs in a nest built in a small swale clear of snow, generally hidden in a bush.

From the middle of July to the end of September: hatching out and dispersion of the nestlings
The nestlings are hatching out after a breeding period of 24 days. They leave quickly the nest. The hen hides them in a safe place inside the vegetation where they may find insects (undergrowth of blueberries and rhododendrons). At the beginning of September, the young birds are able to fly. A month later (October), they progressively abandon their mother (dispersion).

The black grouse and the development of tourism
Occurrence of black grouses in a certain area visited regularly by tourists is a quite good indicator of a harmonious and successful development. These biological indicators are taken into account in projects concerning the development of tourism in the mountains.

Dear guests, whether you explore the mountain by ski or by foot, please stay on the trails and marked out paths.

Water, mountains and men

Water
Water, symbol of life, is of a remarkable beauty, in particular in our mountains where it is given creative force and vigour.

Water: untiring traveller
Who can imagine travelling longer than water ? It goes into the atmosphere, the earth, the organism of plants, animals and human beings.

Water and mountains
Erosion: the mountains are drinking water while the water is eating the mountains…even if it has to transform itself into vapour, liquid or ice in order to reach its goal.

In this way, even the highest mountains will one day pass under a bridge. Although water, in great anger, sometimes causes destruction, it means life: green pastures, astonishing moors and majestic forests bear witness.
From this capricious relationship follows an obvious complicity where the mountain becomes fertile and the water … mineral.

Water and men
"They are in us, these little water drops flowing to the sea…"
The human body consists mainly of water: between 65 % and 85 % depending on our age. As a fundamental element of exchanges inside and outside of our body cells, water allows us to live.

Hydration and winter sports: our ski instructors give you advice
While one is practicing an activity such as skiing, the evaporation of the water produced on the surface of the skin (sweat) cools down our body. The consequence is a water deficit which has to be compensated by drinking regularly water. Water deficiency symptoms are fatigue, muscle pain and recovery problems.

So, don't forget to make provision for enough water. Drink moderately, but often.
Our body consists of about 80 % of water.

A real team work between men and the mountains

Alpine pastures
By contemplating our alpine pastures, we are surprised by their harmony. "Reading" these landscapes leads us to those who knew adapting themselves and their activities to the rude conditions of the nature without disturbing the natural equilibrium.

Les Saisies today: living on a mountain pasture hut
Rémy and François exploit a 15 ha mountain pasture in the district of Crest-Voland. The heart of the pasture consists of the *chalet*: cattle get milked there twice a day. The pasture is located in 1650 metres and allows some scenic views on the Mont Charvin.

The roofing framework and the walls of the stable, the cowshed and the barn are built of skilfully assembled spruce wood. An inscription: 1886, the date of construction, engraved at one of the timbers at the ridge of the roof.

The roof, initially covered with *"ancelles"*, traditional wooden tiles, has an angle of 120°. Snow is kept on the roof, serving as an excellent insulation. Only the external walls of the kitchen, in former time used as a hall to produce cheese, and the cellar are made out of stone covered later with chalk. Outside, some piles of wood carefully stacked up at the wall complement the insulation. At the first floor, only one room, located next to the barn, provides accommodation for three persons; that is 18 % of the total volume of the chalet. The barn occupies 55 %, while the stable and the cowshed share 27 % of the total volume.

The *"frédier"*: Nearby the chalet, a small wooden construction served for the conservation of the milk in former times. Cooling was provided by a small brook that generally flew through the building. Today, the *"frédier"* serves as a sanitation facility.

Life on the pasture hut
21 cows belonging to the *"Abondance"* breed are put out to pasture from the beginning of June to the end of September where they return to the valley.
For the farmer, that is 120 days of incessant comings and goings between the chalet (for the milking of the cows) and the pastures on the one hand, the chalet and the meadows located further down (for the

making of hay) on the other. Since there's no more herdsmen, electric fences assure a reasonable utilization of the pastures.
Feeding 21 cows throughout 6 months needs quite a huge quantity of hay.
The collection of the milk by the dairy of Beaufort at 6:30 am and 6 pm determines the organisation of each day.
Usually, a day on the pasture hut begins at 4 am with a cup of *"jus"* (café). Then, the cows are put inside in order to get milked. At 6 am, milking is done and the personal is beginning to clean the cowshed and the milk machine while they are waiting for the dairymen to collect the milk (each cow produces an average quantity of 16 litres / day). At 6:45 am, François is putting out the cows to pasture. His dog, a Savoyan shepherd, is really useful. Rémy goes down to the lower meadows to make hay. Throughout the morning until noon, François puts up the fences and looks after the housework (there are only two men on the hut). After a well deserved siesta until 3 pm, work begins again: at 4 pm, the cattle is put inside to get milked once again. 6 pm: second collection of the milk, then François returns looking after the fences – it is already 8 o'clock. Dinner - then, they don't hesitate to go to bed – the night is short and the rest well deserved.

Dear tourist, enjoying a piece of *Beaufort*-cheese is feeding your heart and spirit above all with the know-how and the common sense of our mountain farmers…
Being in accord with the nature, such is the essence of their message.
Unconsciously and humbly, they are showing us the way to follow…

Have a nice stay and *"bon ski".*