Réserve Naturelle Régionale
GORGES DE DALUIS

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La Pélite

The red gorge shows up in your mailbox when you least expect it.

Discovering...

Fossilised sedimentary structures

A sedimentary structure is the feature formed by sediment (solid particulate matter) when it is deposited. It reveals what the environment and climate were like when the deposition occurred.

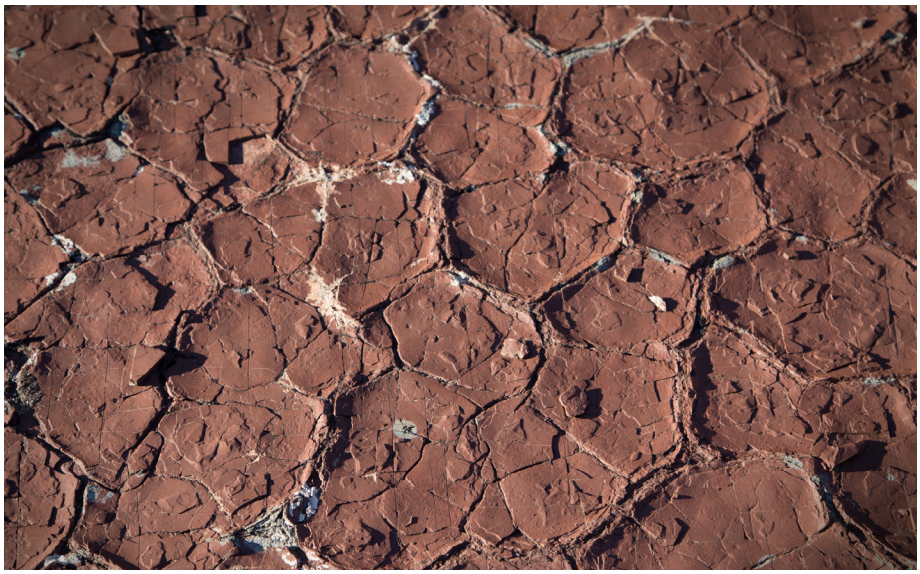
The reserve's red pelite is a sedimentary rock, which means it comes from sediment accumulation. Here, clay-rich fine-grained particles have merged for millions of years.

To understand how the site came to be, it is necessary to understand the Permian environmental background, when pelite was formed. Travelling to the past may be a bit complicated... Fortunately, a few indicators from that period have been preserved inside the rocks: sedimentary structures.

There are 3 main types of sedimentary features in the Gorges de Daluis Reserve:

- **Mud-cracks**: They are desiccation cracks formed when clay is subject to sudden, hot and arid conditions. When water evaporates, it creates hexagonal cracks on the surface. This phenomenon can be observed when mud dries rapidly, or in salt evaporation ponds.
- **Fossilized raindrops**: When a raindrop falls on soft ground, the impact leaves a small crater. If it keeps raining, the craters get washed away by the substantial amount of rain. But if it only rains briefly, and only big drops, then the tiny craters remain carved in the argillaceous layer, and we can still see them more than 280 million years later!
- **Ripple-marks**: (see text box)

By taking these hints into account, we can reconstitute the environmental background in which pelite was formed: ancient beaches and lagoons that underwent numerous periods of droughts and floods.



Mud-cracks on pelite © B. Gilles

Meeting...

A geologist

Born in Péone, **Magali Rossi** now works as a lecturer in geoscience at the Savoie-Mont-Blanc University, in the EDYTEM lab.

Growing up surrounded by mountains, Magali had always felt drawn by natural science. While studying geoscience in Sophia Antipolis, she took part in a field trip under the supervision of Gilbert Mari and fully realized the Gorges de Daluis Reserve's valuable geological heritage. The skillful geologist admited that "the Reserve's geological heritage is exceptional". She gives more details about it during various guided hikes to the *Point Sublime* or other geologically interesting sites, mainly in partnership with the Association *Péone Patrimoine*.

Upcoming...

Mineral exhibition

The 33rd mineral exhibition, organised by the ANNAM will be held on **Saturday 18th and Sunday 19th November 2017** in Parc Phoenix, Nice.

You can also go to screening and conferences about "Fossils, carved rocks and Neanderthals".

Did you know...?

Ripple-marks

These little current ripples are formed by running water, just like dunes are formed by strong winds. If the current goes both ways, perfectly symmetrical ripples can be found: this is the case for tides. However, one-way currents (any watercourse running down a slope) will shape stretched ripples: the result will be asymmetrical.

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