

## VIEW POINTS



**1.** From the starting point it is possible to look a panoramic of dregs making up the Rock, as a matter of fact, the whole outcrops belong to the Dominio Imerese, a well layered number of rocks from were we can arrive from the Mesozoic Era (About 200 millions years ago), to the Cenozoic Era ( about 24 millions years ago).

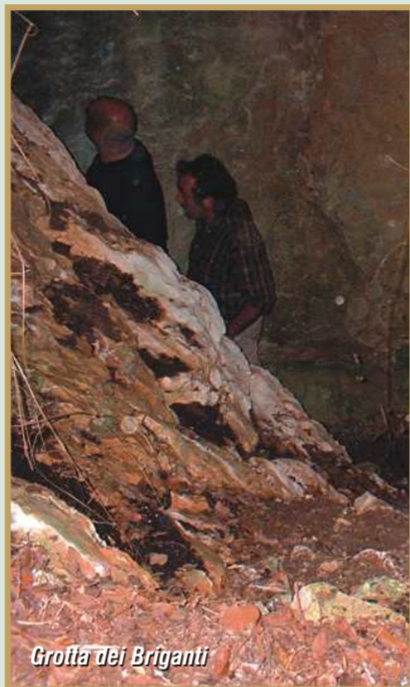
**2.** Silicious argillites and red biddy or grey-green radiolarites well stratified with the evident interpolation of an important calcareous outcrop were we find relics of *Ellipsactynia* fossil sponges; through a lane we can reach the contact zone between argillites and limestones. This is an important and charming landscape, were shepherds took shelter long ago.



1



Erosione Selettiva



Grotta dei Briganti



2



Iscrizione sull'Eremo



3

**3.** Radiolarites and red biddy-purple grey silicious argillites Well stratified and exposed to an high surface erosion come to the surface. It gives them the scenic feature of being powdery in the medium-lower parts of the outcrop.

Southwards the argillaceous-siliceous outcrops suddenly is broken from a limy-bed; the tectonic origin of this contact is clear and pointed out from the warping of the rocks in that point.

**4.** Medieval Hermitage on the top of the Rock, probably used as place of retreat and meditation. From here it is possible to look a recapitulatory paragraph of the Madonie geology, difficult to find in other parts.

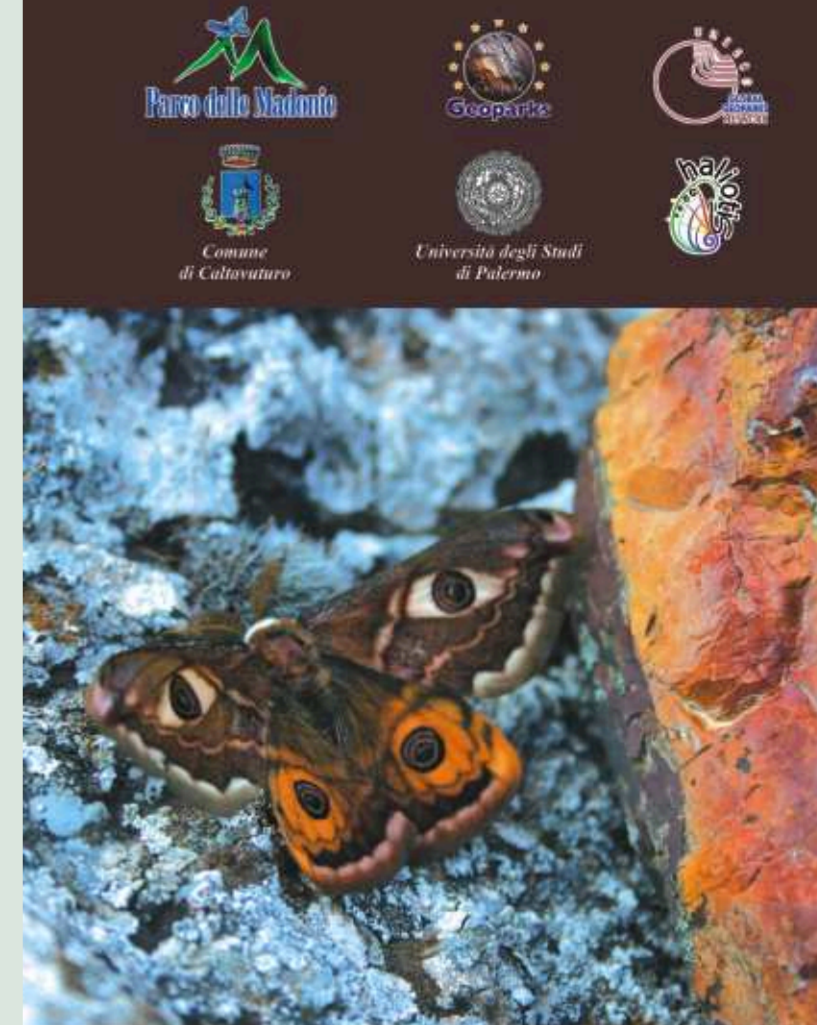
In the Piano Battaglia area ( north-east) the higher reliefs belonging to the Dominio Panormide jump out. Along the Imera Settentrionale fluvial network there are younger dregs, geochronologically speaking , tectonically decreased.



4



Karren



### THE GEOLOGICAL PATWAY "ROCCA DI SCIARA"

#### INTRODUCTION

The geological pathway "Rock of Sciara" was born in the order of the qualitative development of the Geopark; it comes out of the Haliotis association's purpose to improve the value of holdings bordering on the lived-in centres, aiming to link in a natural way the geological aspects as well as the connected evidences of the men's activities.

The path was realized in synergy with l'Ente Parco delle Madonie and the backing of Caltavuturo Municipal Administration.

A Geopark is a site including particular geological evidences added to an environmental development method supported by an european programme favouring its increasing.

The geological path "Rock of Sciara" has a peculiarity. It was born from an environmental education school project entitled "The Rock and the Man", financed by the "G. Oddo" school. Its base-model goes through the educational institution and it was worked out during school labs and hikes in synergy with the Teaching Staff and Pupils of the dell'Istituto Comprensivo "G.Oddo" in Caltavuturo during the schoolyear 2005-2006.

#### HOW TO GET TO CALTAVUTURO

Motorway PA-CTA 19 (Tremonzelli exit), Caltavuturo direction. When arrived in Caltavuturo, go on ahead the sports field, then, at the junction, turn right going to the first explicative traffic signal.



#### For further information contact:

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## “TERRAVECCHIA” CASTLE

Built on good layered calcareous rocks, the small castle looked over the whole lived-in area with a lot of paths leading to the different churches and the main doors. Two doors brought into the enclosed citadel: the first one is called “Suprana Door”, near the castle, brought to east-zone; the second one, called “Scillato Door”, was in the west of the castle, on top of the “Hamlet church”.

Both of them had steps used on foot or by horse.

Historically, the “Terravecchia rock” was conquered by the Arab people and, at the time, it was only a stronghold available, in particular cases, as shelter for the groups of populations scattered all around. Maybe the Arabians started to use the “Terravecchia military stronghold” as civil residence. After the arabic domination, the winners used “Terravecchia” more and more as a civil place, in consequence of the defensive works, a current phenomenon in Sicily.



Panoramica dal paese



## GEOLOGY

Two geological treasures are now available thanks to the the creation of two new geological pathways: “Rocca di Sciara pathway” and the “Sclafani Bagni town geological pathway”.

This paths are added to the preceding “Stones and water”, “Battaglietta-Portella Colla swallow-hole”, “Petralia Sottana town geological pathway”, bringing the Madonie Park walkway area to an extension of 20 km. It is an area that shows the geological beauty spots.

This paths are a new way to enter into the most important geological areas; there are also paths for beginners that, thanks to the non-invasive signals and to the reference folder, can “discover” a new and charming geological world.

One more time the cooperation between University institution, local corporations and cultural associations operating in this territory made a valorisation of the territory possible through an intimate knowledge of it.

Mr Valerio Agnesi

The Headmaster of the Geology and Geodesy Department

The Rock of Sciara and nearby geologically represent a nearly full series of lithologies of basin from the Imerese Domain.

It is composed of rocks going from over 200 to towards 24 millions years ago. In a lithostratigraphical series, from the bottom upwards we exactly find: the calcareous rocks with stripes and nodules of chert belonging to the Scillato Family (Upper-Triassic); the dolomitic limestones belonging to the Fanusi Family (Upper-Lias, Upper-Cretaceous); the calcilitites and reddish malmstones with biocalcareous interpolations belonging to the Caltavuturo Family (Upper-Cretaceous Oligocene).

It should be noted that, within the Crisanti Family, we find great outcrops of red or yellow jaspers used in the past to decorate churches and aristocratic palaces; moreover the downtown of Caltavuturo and the “Terravecchia”castle were both built with calcareous rocks risen to the surface in the formations quoted above.

The Rock, bounded from a tectonic point of view, has the shape of a hogback rearing over the residential area through a drop face of about 300 metres.

## THE VEGETATION IN THE ROK OF SCIARA (Caltavuturo)

The vegetation in the Rock of Sciara feel the effects of the human intervention, especially the sheep-farming. That’s why we can find different species “infesting” the pastures as the ferula (*Ferula communis*), the asphodel (*Asphodelus microcarpus*), the thistles (*Cardus* sp. pl.), the Galactites tomentosa, showing a partial degradation of the meadow.

The dominant vegetation is the grasslands one, if we exclude the lower part of the path where we have a reforestation area with Downy oaks and pines. Among the most important species it is possible to find the endemic saffron (*Crocus longiflorus*), the euphorbia (*Euphorbia rigida*), the shrubby euphorbia (*Euphorbia characias*), a few species of clover (*Trifolium*), the alpine hyssop (*Micromeria graeca*), Ranunculus, the stellate anemone (*Anemone hortensis*), the pale blue sage (*Salvia multifida*), the Blackthorn bush (*Prunus spinosa*), the Echium italicum.

There is also a big area of diss (*Ampelodesmos mauritanicus vegetation*), particularly next to the face of the rock. The rocky formations, representing for a few species a shelter and a protection from the human action, have a lot of species. For example the endemic rupestral cabbage (*Brassica rupestris*), the *Centaurea busambarensis*, the euphorbia tree (*Euphorbia dendroides*), the oleaster (*Olea europaea* var. *sylvestris*) and the vulnerary clover (*Anthyllis vulneraria*). Among the orchids we remember the Robert’s orchid (*Barlia robertiana*).

### Calendola



Euforbia cespugliosa



Cardo di Boccone



Garofano rupicolo



Zafferanetto

## BASIC GLOSSARY

**Dolomitization:** the process whereby limestone becomes dolomite by the substitution of magnesium carbonate for a portion of the original calcium carbonate.

**Fault:** a fracture or a fracture zone along which there has been displacement of the sides relative to one another parallel to the fracture.

**Formation:** the basic unit for the naming of rocks in stratigraphy: a set of rocks that are or once were horizontally continuous and share some distinctive features of lithology, and are large enough to be mapped.

**Flysch:** succession of arenitic and clays layers generated by a turbidity flow.

**Hum:** residual hill of limestone on a level floor, such as the isolated hills of limestone in poljes.

**Karren:** superficial small-scale sculptures formed by solution processes on limestone and other soluble rock surfaces either exposed to the rain or buried beneath the soil.

**Lithification:** the complex of processes that converts a newly deposited sediment into an indurated rock.

**Marl:** intimate mixture of clay and limestone rock.

**Polje:** large flat-floored closed karst depression, with sharp slope breaks between the floor and the marginal limestone. The flat floor of the polje may consist of bare limestone, of a nonsoluble formation or of soil. Streams or springs drain into poljes and the outflow is underground through sinkholes. Sometimes the sinkholes are covered by impermeable rocks, so that many poljes turn into wet-season lakes.

**Radiolarite:** the lithified sedimentary rock formed from a siliceous deep-sea sediment composed largely of the skeletons of radiolaria.

**Rounded solution runnels (Rundkarren):** Karren form comprising rounded channels, commonly 50-500mm deep and wide and separated by rounded ridges. Rundkarren are the characteristic dissolutional forms created beneath superficial material such as soil, or beneath a cover of plants or mosses.

**Tectonic unit:** geological body delimited by two thrust planes. The thrust is a dip-slip fault in which the upper block above the fault plane moves up and over the lower block, so that older strata are placed over younger ones.

**Selective erosion:** erosion processes affected by a rock’s geological structure. The less hardy and more fractured rocks are more erodible than harder and less fractured rocks.

**Solution pan (Kamenitza):** a small depression in a level calcareous surface, enlarged by the solution effect of water collecting between slight undulations. It is initially developed vertically by stagnant water; the steep sides thus created then induce the flow of water which flutes the slope and thus eventually widens the basin.

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