UNESCO
United Nations
Educational, Scientific and
Cultural Organization

UNESCO
Global
Geoparks

Evaluation Mission Report

Name of aspiring UNESCO Global Geopark (aUGGp): Parco Nazionale de’ll Aspromonte Aspromonte National Park

Name of Country: Calabria, Italy

Names of the evaluators and date of the mission: Alexandru Andrasanu, Antonino Sanz Matencio

19th - 22nd July
A. GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Surface area in km²</th>
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<tr>
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<td>273.159</td>
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<td>Contact person (name, position, e-mail)</td>
<td>Sabrina Santagati / Management Body Director <a href="mailto:sabrina.santagati@parcoaspromonte.gov.it">sabrina.santagati@parcoaspromonte.gov.it</a> <a href="mailto:geoparco@parcoaspromonte.gov.it">geoparco@parcoaspromonte.gov.it</a></td>
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B. LIST OF DOCUMENTS SUBMITTED BY THE aUGGp

- Via UNESCO
  - Official letter from UNESCO inform the agreement to authorise an evaluation mission to National Park Aspromonte (May 16, 2018)
  - Application Dossier and Annexes I–V,
  - 1-page geological and geographical summary
  - Self Evaluation of the Geopark
  - geological desk top evaluators reports from IUGS – International Union of Geological Sciences (4)
- Directly to the evaluator(s) during the mission
  - Evaluation Mission Program
  - A PowerPoint presentation on the overview of Aspromonte aUGGp and organisational structure.
  - Dossier of scientific articles and researches about Aspromonte aUGGp
  - Administrative Official Resolutions
    a. Minutes n.06 of 10.02.2016 of the board of directors of Aspromonte National Park In which it is decided to propose the candidature to become Unesco Global Geopark
    b. Director’s Resolution n ° 660 of 09.12.2016 by which the procedure of Candidacy to UGG begins.
    c. Director’s Resolution n ° 331/2017 approving the Application dossier and sending it to Unesco
    d. Director’s Resolution No.96 of 13.02.2017 establishing Geopark Office in the organizational structure of the Aspromonte National Park
    e. Director’s Resolution n 111 of 12.02.2018 establishing the Technical Commission for the candidature to become an Unesco Global Geopark
    f. Documents requiring increase of official roster of public employees
  - Report on Promotional Activities on Geo-Tourism.
  - Report on Geo-valorisation and Research Scientist Activities
  - Report on Promotional publications and services
  - Report on Education and Training Activities
  - Report on comparative the geological characteristics between Pollino UGG and Aspromonte aUGGp (ANEX 1)
  - Excerpt from the Italian Mountain Law (legge n. 97/1994) whereby the Aspromonte National Park establishes local companies and cooperatives to carry out work related to the defense or improvement of the environment and landscape.
  - Document on technical characteristics of signage and visit infrastructures
  - Comparative Report about the geological characteristic between Pollino UGG and Aspromonte aUGG.
  - List of people met during the evaluation mission
  - Guide to the vertebrate fauna of the Parque Nacional Aspromonte
  - Guide Geologic of the Aspromonte
  - Guide to the Flora of the Aspromonte
  - Guide to sustainable tourism in the Graecanic Area
- Tourist Guide: The Graecanic Area in Calabria
- Food and wine Guide: The Graecanic Area in Calabria
- The Calabrian Greek for kids
- Illustrated Guide for kids: The Graecanic Area in Calabria
- Aspromonte field notebook
- Official Brochures principal landscapes
- Official Brochures Geosites Paths & Official Brochures Paths
- Other printed leaflets/brochures of geosites, visitor centres, information points, etc.,
- Aspromonte aUGGp Official Tourist Map and paths, with main geosites.
- Map about resources for the visitors: “Aspromonte I mille volti del Parco”.
- Monographic Magazine about resources for the visitors: “Aspromonte I mille volti del Parco”.
- Geopark notebook: Geologic heritage as key element for a sustainable development.
- Annual program of activities of the association "People in Aspromonte"
- DVD Calabria: History and Natura (edited by Aspromonte aUGGp)
- Lyrics of the Pray "L’orgin I Natili" by Cultural Association "Natilotelando".
- Scientific publications about geology, petrography, tectonics of the geopark territory

C. MAP OF THE AREA

Map of the aspiring UNESCO Global Geopark indicating the boundary, cities, general geographic points
D. SYNTHESIS OF IUGS DESKTOP ASSESSMENT

The IUGS Desktop evaluators highlighted for Aspromonte area: tectonic - metamorphic evolution of poly-deformed rocks; Alpine vs Hercynian orogenesis; Geological field mapping; petrophysical properties of rocks; geochronology; active faults, seismicity.

The following geological features of the Aspromonte National Park are highlighted in international publications:

1) The relationships between deformation and metamorphism, the structural analysis of shear zones and the geochronological determinations of the deformation events.

2) The tertiary sedimentary successions have been studied essentially for two purposes: i) to understand the relationship between sedimentation and progressive deformation of the Calabria terrane; ii) to analyse sedimentation developed along the Calabria arc during the Pliocene-Pleistocene (i.e., the Messinian salinity crisis, deposits thought to have formed in a paleostrait that was similar to the present-day Messina strait.

3) The intense Pleistocene uplift of the Aspromonte Massif and the recent geodynamic evolution of the central Mediterranean. The seismic activity of this region related to the rapid uplift of this chain sector is well documented by a lot of relationships between tectonics and erosional processes: sea terraces of various order; the typical rivers (fiumare).

Some geomorphological aspects (landslides and the so-called fiumare rivers) represent spectacular examples at national scale. The metamorphic terranes cropping out in Calabria are linked to a very complex geodynamic history within the evolution of the Mediterranean realm. Recent seismic activity and rapid uplift are of extreme scientific interest.

Potential additions could be (i) the Brancaleone fossil Site and (ii) the Late Oligocene - Early Miocene submarine paleocanyon at Stilo filled by the conglomerates of the Stilo – Capo d’Orlando Formation.

One of the IUGS reviewer highlighted that the following geological features of the Aspromonte geology must be mentioned:

1) The connection between the Aspromonte massif and the Serre massif;

2) The "Argille Varicolori" melange and more detailed studies of these chaotic units will provide evidence on the development of the Calabria accretionary wedge and on the emplacement mechanisms of such huge olistostrome bodies.

3) The stratigraphic units representing the onset of Tertiary sedimentation on the Calabria basement in the Aspromonte area. These sedimentary units are generally referred to as the "Stilo- Capo d’Orlando Formation" in the literature, but include units formed in markedly different (continental to marine) environmental conditions.

4) The Jurassic-Cretaceous limestone representing the cover of the Stilo Unit along the Ionian coast. This succession may be compared with similar units cropping out in the Mediterranean area (i.e., Sardinia) and its detailed reconstruction may be useful for correlations at the regional scale and for reconstructing tectonic events in the Tethyan domain.
E. VERIFICATION OF UGGp CRITERIA

E.1 TERRITORY

E.1.1 GEOLOGICAL HERITAGE AND CONSERVATION

Recommendation: yes/no

The main geological peculiarity of Aspromonte Geopark, lies in the geodynamic and seismotectonic origin and geomorphology and hydrographic evolution of this southern peninsular fragment of Orogen (Arco) Calabrian-Peloritano (OCP). OCP is, in fact, a stranger element along the Apennine chain, the result of a rare orogenetic process: it corresponds to a fragment of the alpine (partly ercinic) chain detached from Spain, NorthWest Italy, Sardinia and Corsica area (caused by the opening of the Ligurian-piedmontese Basin and the Tyrrhenian Sea), located east-southeast and thus overwhelmed entirely in the lower Miocene above the nascent Apennine Chain. A unique "geological system" emerges on the Mediterranean scale, ancient and yet still in formation, whose main components geological heritage - consist of: crystalline-metamorphic paleozoic rocks; rivers and waterfalls; plateaux or sea terraces (and continental); unique geomorphological forms (Stones and Rocche), great landslides and the profound gravitational deformations of Versante.

The geological heritage present in the Aspromonte area is one of the best in the peninsular Italy. Rocks outcropping in the area have contributed to our knowledge of the geodynamic evolution of the central Mediterranean and can be useful for further developments in the research. In addition, the rough and characteristic morphology of the area is clearly indicative of the ongoing geodynamic processes, represented by rapid uplift and active faulting.

Some of the geological and geomorphological features, there are worth mentioning:
- the sequence of sea and continental plateaux or terraces of the Aspromonte;
- The Fiumare valleys: Amendolea, La Verde, Buonamico, Careri, Torbido, each characterized by some particular landscape features, which make them unique as a complex as well as a single physiographic unit. These valleys are, among other things, of great interest especially for their geomorphology and hydrology;
- The Great Stones and Monoliths, many of which can be called as exfoliation domes, as for example the territory between St. Luke and Natile Vecchio;
- The "dolomitic" landscape of pinnacles, towers and limestone walls of Canolo;
- Waterfalls (some of which are important for their inclination, leaps and flow rate) which are hidden in the deep gorges surrounding the Aspromonte plains
- The tectonized and altered crystalline-metamorphic rocks and the shear zones;
- Large gravitational landslides and/or deep-seated gravitational slope deformations (DSGSDs), which give the territory of suggestive and unique connotations.

Geosites of International Importance
- Grande Frana Colella – Roccaforte del Greco
- Le miloniti del muretto M.te Antenna – San Luca
- Cascate del Torrente Barvi – Mundu e Galasia – Molochio
- Superfici terrazzate di Gambarie – Santo Stefano d’Aspromonte
- Fiumara Amendolea – Condofuri
- Valli delle Grandi Pietre – San Luca e Careri
- Pietra Cappa – San Luca
- Frana Lago Costantino o Oleandro (Monte Prache di Cucco) – San Luca

The diverse geological and geomorphological situation in the Geopark made it useful to outline the 89 identified geosites (of which 8 have characteristics that can be considered of international importance) grouping them by homogeneous geographic areas (Landscape Systems) in order to safeguard and develop them effectively and efficiently.
This also allows them to better correlate with the non-geological peculiarities, diversified cultures and traditions present on the territory. Five geographic systems have been identified and there have been indicated the geological and non-geological sites, the non-geological peculiarities relating to the geosites located in the reference system and the protection levels in accordance with the zoning of the Park Plan and the other regulations in force on the territory. All these allow connecting the influence of the aUGGp to the closest territory and plan further development projects.

All the territorial systems and the respective geosites are mapped through a GIS and its database.

The Aspromonte National Park was constituted under the Italian Law on December 6, 1991, n. 394 framework law on protected areas. In this sense, according to the law It’s considered natural heritage of physical, geological, geomorphological and biological formations, or groups of them, which have natural and environmental value, so that the territories in which the values mentioned are found are subject to a special framework of protection and management, in order to carry out, in particular the conservation of species of animals and plants, plants or associations forest, unusual geology, paleontological formations, the community biological values, biotope, landscape and landscaping, natural processes, hydraulic and hydrogeological balance, ecological balances;

National parks consist of terrestrial, fluvial, lake or marine areas that contain one or more intact ecosystems or even partially altered by anthropic interventions, one or more physical, geological, geomorphological formations, biological, of international or national importance for naturalistic values, scientific, aesthetic, cultural, educational and recreational activities that require State intervention for the purpose of their conservation for present and future generations.

Likewise, in the whole territory of the Aspromonte National Park is forbidden the collection of materials of significant geological interest; paleontological, with the exception of the one performed, for research purposes and study, subject to authorization by the Park Authority;

**Recommendation** - Important geosites and geological phenomena are outside the geopark territory, especially near the sea coast (e.g. fossiliferous sites, terraces). These are very important in understanding, interpretation and promotion of the geopark geology. It is recommended these assets to be connected to existing geotrails or to develop new geotrails able to connect geologic, natural and cultural sites from inside and outside the geopark territory;
E.1.2 BOUNDARIES

Recommendation: yes/no

The application form for the admission of the territory of Aspromonte to the European and Global Geoparks Network is submitted by Ente Parco Nazionale dell’Aspromonte (Aspromonte National Park Authority). The perimeter of the Geopark project coincides with the perimeter of the National Park, which since its establishment under the presidential decree of 14/1/1994, pursues institutional goals agreeing with the objectives pursued by the Geopark project.

The Geopark has a well-defined boundary, available on maps, leaflets, panels, publications, etc. The maps are accurate, complete and adequate to show unequivocally where the boundary of the aUGGp is located. The limit of the aUGGp coincides with National Park, which is the entity applicant. The protected area (legally), that exists previously (1994) can represent an opportunity to improve the Geopark visibility and the achievement the objectives that UGG's purpose. In the case of Aspromonte, it is not a problem, but a guarantee.

Geopark entrances are well defined (photo)

E.1.3 VISIBILITY

Recommendation: yes/no

The Aspromonte Geopark project has a good visibility in the territory for its inhabitants and the people who visit it. The plan established by the administrators of the territory implies a continuous adaptation of the previous signage to make known the figure of Aspromonte as a geopark and what it represents for the sustainable development of the territory, the conservation and valorisation of natural resources (including geodiversity), cultural and ethnographic.

Aspromonte Directional Signal

Entrance Signal

Signal at Municipality main entrance (Gerace) Greco-Calabrian Language Museum (Bova)
In this case the Aspromonte signage has been carried out as a Geopark in the access signs to the territory, in the limits, in the entrances of the main localities, as well as in the improvement and adaptation of the visibility in the existing infrastructures, such as of visitors, official roads. During our mission we identified there is information about the route, points of geological interest and information and standards for its use. This signage appears in two languages: Italian and English.

The signage of the main geosites is remarkable, with informative access panels, explanatory and informative. Many signals include a QR code for more information.

The official paths are provided with different kind of signals and panels informing and explaining the route and additional information about the natural and cultural resources and also about Geopark.
An important effort has been made to make the figure of the geopark known to the local population and to the entities and companies that work in the region, through the holding of informative meetings and/or specific training courses. In addition, seminars and practical workshops are organized for the park’s official guides. The aUGGp published many promotional papers informing about Geopark project, Geodiversity, facilities, etc.

The aUGGp is doing an important job of promotion and dissemination, as it has increased the presence in the media and social networks where publications devoted to reporting on the geopark and the activities it has been carrying out are common.
Aspromonte National Park maintain a website where they provide information about the Geopark, the application process, tourist facilities, planning, and activities that they or their partners organize.

http://www.parcoaspromonte.gov.it/en/

They have important support network of the local community that helps them to spread and promote the figure of the geopark.

We have visited some collaborating centers where it’s provided tourism information about the geopark and the activities that can be carried out in it.

Sapiri-Sapuri Association (Gerace)  Tourism Office Bova

We especially want to mention the Info-Point existing in the National Archaeological Museum of Reggio Calabria, the most visited in the region, in which it offers tourist information about the Geopark and the activities that can be developed.

Info-Point in Reggio Calabria Archeologic National Museum
Finnaly, Aspromonte participate in several international and national meetings, congress, workshops etc, in order to share the Geopark Project.

Recommendations:

There is a high number of touristic trails connecting different points of the territory. These trails need to be developed in order to integrate geological sites, cultural sites, landscape interpretation.

The web site needs to be improved and especially updated with new information and events.

**E.1.4 FACILITIES AND INFRASTRUTURE**

Recommendation: yes/no

There are nine Visitors Centers directly managed by Aspromonte National Park aUGGp. The work of promoting the values and the aims of the protected area is translated directly into the territory thanks also to the presence of Visit Centers located in the municipalities of the Park, in strategic places where visitors can find assistance and directions on routes, information and suggestions for their visits and their itineraries. The structures are characterized by different themes inspired by the natural and cultural peculiarities of the territory in which they fall or promote, and contain the information, basics and / or deepening of the environmental and cultural heritage of the Geopark.
An interesting and interdisciplinary exhibition is organised, in partnership with architects, in Bova Visitors Center about the English landscapist/traveller Edward Lear that covered a itinerary on foot in Calabria in 1847. This travel was described in his book: "Diario di un viaggio a piedi in Calabria e nel Regno di Napoli" (Journal of a Journey on Foot in Calabria and the Kingdom of Naples). This exhibition shows different panels written in different languages (Arabic, Greco-Calabrian, English and Italian), and is prepared for blind people in Braille Sistem. It’s also possible use virtual reality technology for more information (app and QR code).

The Park has a land registry in 2012, where the main hiking trails of the area are collected. The park’s trail is critical to the proper use of the environmental emergencies of the area and is very important because it allows an integrated use not only of the geological valencies present but also of all the other components that the territory of the geopark presents. The park’s trail network has been prepared following the national guidelines provided by the Italian Alpine Club, thus adopting its archiving and signposting. All the geosites identified can be reached by intermodal routes, connected to the mapped path network, which in all its development is potentially exploitable to enhance the geological and environmental heritage of the Geopark project, also thanks to the equipment (orientation billboards, information paneling geosites, etc.) for geo-tourism purposes. Through the cooperation the CAI of Reggio Calabria, Aspromonte Section (Club Alpino Italia), has created a database of the main paths, downloadable and implemented in the most advanced GPS. The Aspromonte National Park has also published a descriptive guide of the six trails that are most interesting in terms of the diversity of the territory, divided by sides, ionic and tyrhennical.
The official paths are provided with different kind of signals and panels informing and explaining the route and additional information about the natural and cultural resources and also about Geopark.

All the infrastructures and facilities are included in a periodic maintenance program that monitoring them and clean and repair if it’s necessary.

These infrastructures are built with materials adapted and prepared against the inclemency of weather and the effects of sun exposure. They are chosen with criteria of durability, sustainability and proximity and installed by local social economy companies.

A visiting trail and point was developed, also for disable people in “Rocca di Drago”. The infrastructure was builded by a local cooperative and is prepared to be easier the visit to this important geosite.

The museums and information centre partners offer information about the Aspromonte National Park aUGGp. During the mission we visited Greco-Calabrian Language Museum (Bova), Bova Tourism Office and the Sapiri e Sapuri association info-point. In this places there are information, brochures, leaflets, etc, about aUGGp.
There is an incipient network that includes museums, guides, tourism enterprise, etc, working together in the frame of the European Sustainable Tourism Chart.

Aspromonte National Park has a roster of official guides for hiking, climbing, and other outdoor activities, even cultural and ethnographic. The official guides are trained and authorised by National Park to work in the area.

From the National Archaeological Museum in Reggio Calabria, the most visited museum in the region, depart the PARCO-BUS, a bus with an official guide that offer a visit a different areas within the aUGGp. Through Aspromonte official website is possible contact the partners, official guides, restaurants, accommodations, etc.

Recommendations
- Integration of geological and cultural heritage (tangible and intangible) in existing visiting trails (touristic trails);
- The visiting centers are presenting local cultural, natural and historical values. There are panels and temporary exhibitions dedicated to local geodiversity (eg in Bova). In order to better promote local geodiversity (rocks, tectonics, fossils, and landscape) permanent exhibitions to be organised.
- In the area there are a lot of stone made objects, including an open air exhibition in Bova. These could be integrated into the visiting trails

E.1.5 INFORMATION, EDUCATION AND RESEARCH

Recommendation: yes/no

E.1.5.1 INFORMATION

As It was explained in section 1.3 (Visibility), the aUGGp has different brochures, leaflets, publications, maps, books … available to visitors, that provide wide information on the aspects related to the geopark, facilities and services available and interesting information about the geodiversity of the territory. Also, there are panels that report on various aspects related to the geopark and it's
geodiversity at visitor centers and infrastructures (official paths, recreational areas, other infrastructures). In many of them Italian and English languages are used.

E.1.5.2 EDUCATION

The Aspromonte Geopark offers educational activities and training courses for different kind of people and collectives. Many activities are developed in the schools of the territory, aimed at schoolchildren visiting and improving knowledge of the geopark.

On the other hand, they work with the schools teaching staff in the territory with the objective to improve a better knowledge about the Geopark and its resources.

In the Geosite Grande Frana Colella there is a very original transparent slate to be used by educators in their environmental education activities and to facilitate the interpretation of the landscape.

It is important the training work with the official guides, partners and tourism companies through the organization of several specific training courses on geoparks and geodiversity and other aspects related to culture, nature, etc.

An educational activity was developed by the partner geologist Serena Palermiti for local schools in order to discover the lithology and fossil content of the Gerace pavement rocks.

E.1.5.2 RESEARCH

The Aspromonte aUGGp work very closely with the Mediterranean University (Calabria) and specially with the Catania University.

We could meet Professor Ortolano and Proffesor Punturo from Catania University and know the researches that they are doing in their University cooperating with Aspromonte aUGGp.

An expert ISPRA (Institute for Environmental Protection and Research) is member of The Board of Directors,

Recommendations
Educational activities dedicated to geological heritage, geoconservation and geopark have to be integrated into a plan and more educational partnerships with local schools to be developed. There are some very good examples presented during the meeting we had with local association in Gerace (botany, farming, agriculture, landscape and movies – Maleficent story in Aspromonte landscape)

E.2 OTHER HERITAGE

E.2.1: NATURAL HERITAGE

Recommendation: yes/no

Aspromonte is characterized by a high level of genuineness spread from the mountain peaks to the lowest altitudes. In the highest peaks, there are large mountain beech wood forests or the forests where either beech wood is mixed with larch pine (a characteristic conifer) or the ones where beech wood is mixed with spruce (today very rare). At lower altitudes there are the oaks while the
Mediterranean scrub can be found near the seaside; tamarice and oleander grow along the rivers. Among the herbaceous plants of particular importance there are the gigantic and very rare fern of tropical origins, Woodwardia radicans, and the digitalis purpurea, very poisonous plant of the big red flowers. As far as fauna is concerned, the most significant species is the very rare Golden Eagle (Aquila chrysaetos), whose specimens in Italy can be literally counted on the fingers of one hand. The wolf, who had disappeared in the 1950s, has recently returned to these mountains. It also seems that the elusive wild cat is still relatively diffused. There are many wild boars and pigs. Of particular importance are also the Black Woodpecker and the Real Owl, as they both are very rare in Italy. Moreover, in the spring, the Straits of Messina is a very important and well-known transit point for thousands of birds that migrate from Africa to Europe: this makes Aspromonte a remarkable observation spot for bird enthusiasts.

The area proposed as a geopark has different levels of protection which, over the years, have overlapped each other. In addition to the existence of the national park, in the aUGGp area there are other protected areas included in the Natura 2000 Network that indicate below:

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**E.2.2 CULTURAL HERITAGE**

Recommendation: yes/no

The area of the Geopark through thousands of years of history has seen the succession in its territory of peoples and cultures from different places. Since the Paleolithic times historical and cultural stratification has been taking place: the Greeks and the Romans, then the Lombards, Saracenes, Byzantines and finally Normans and Spaniards until the Italian unification and the long history of emigration overseas.

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The strong historical evidence, of both artistic and archaeological, the testimony of ancient civilizations culture, are present everywhere in the Aspromonte area.
The communities still maintain very alive their original customs, popular traditions, languages and dialects, ethno-anthropological characters, rituals as well as civil and religious celebrations of ancient origin.

The Grecofona area, is a geographical territory of the hellenophone province of Reggio Calabria, located within the mountains of Bova which makes part of the park. This area has been over the centuries a cradle of the hellenophone linguistic minority of Calabria with its peculiarities equally important to the natural ones and subjected even to greater risk of contamination. On the southern Ionian side of the Aspromonte, there can be found the well preserved traces of the ancient culture representing the crossroads of the Mediterranean territory.

The Greek territory is also protected by Law LRn15 / 03 "Rules for the Protection and Valorisation of the Language and Cultural Heritage of the Linguistic and Historical Minorities of Calabria, while the Regional Law of December 4, 2012, No. 62, Institution of Eco museums in Calabria, has allowed to create some museum structures that fall within the Geopark territory. The linguistic minorities of the Greeks of Calabria, a population that lives mainly in the province of Reggio Calabria in the Greater Geopark area, is recognized in Italy by Law 482 of 1999.

The museums constitute an essential infrastructure of the heritage of culture and tradition, representing an important component of the country’s anthropic system. For this purpose, the PNA has established the first Network of Museums in the Park, including the structures already censed within the Multi-Annual Economic and Social Plan. The Open Network aims to strengthen and support cultural offerings by allocating specific resources annually, concluding conventions, public invitations to tender and granting funding. It is also planned to set up a web portal through which to promote structures, highlight their educational offerings and exhibitions, and coordinate seasonal events.

E.2.3 INTANGIBLE HERITAGE

Recommendation: yes/no

The customs and traditions that throughout the centuries characterized the area concerned are still evident in the principal activities of social life, often connected to the circle of the life, various rituals of the year, agro-pastoral practices, as well as being present in the spiritual sphere and that of the religious beliefs. Traditional cuisine is essentially agro-pastoral, however rich in flavors with prevalent use of grain and an important production of bread, pitta and pasta.
The mostly diffused cheese is pecorino cheese, ricotta and musulupe, fresh not salty cheese with carved motifs called "le musulupare". The local production of wine and oil are of excellent quality as well. In addition, this area is also characterized by the presence of a microclimate that is very unique in the world that allows the cultivation of bergamot on the fields close to the rivers and hills.

The way of maintaining and sharing the natural yeasts that are used for the fermentation of bread is still preserved. Always reserve a part of the mass of flour, water, salt with natural yeast (Lievito mother). To this dough is added more flour, water and salt, and once the whole dough is fermented and before cooking, a part is saved that will be used again to prepare more bread. Women preserve and share this ancestral tradition.

The natural essence extracted from bergamot is used in a major part of the world finest perfume production. Regarding the typical dishes of the Greccanican cuisine there is worth mentioning the pittas such as the one called “la lestopita” (a fried pita made of flour, water, with no addition of salt and yeast) and another called “la pitta ‘rrustuta” (a baked pita made of flour, water, salt and yeast).

It’s very interesting how mythology and ancient legends are presents in the area yet, more of them directly linked with Geodiversity issue. Examples of them: Fantastic stories about the origin of Rocca dil Drago, Pietra San Pietro, Rocca di lupo, etc.
Another important effects from natural hazard (Earthquakes, Floods or fireforest) are present in the local culture. One example is the pray that people from Natile Vecchio di Careri sing to the Madonna (Virgin María) to give thanks before the great flood de 1951.

Memorial dedicated to the great flood de 1951  Members of Natile Vecchio Cultural Association singing the pray

Recommendations
Local geodiversity played an important role in shaping local identity. There is a need to identify new aspects of these influences in different parts of the geopark and to integrate them in visiting trails, education, interpretation. The village Natile di Careri is a good example that shows how the people resilience helps to face the natural disasters and its consequences. In cooperation with local community, an Info-point about floods and people in this village or another kind of facilities can improve the promotion of the links between Geological Hazards and human been, and how It affects the culture, land-planning, etc.

E.2.4 INVOLVEMENT IN TOPICS RELATED TO CLIMATE CHANGE AND NATURAL HAZARDS

Recommendation: yes/no

The Regional Observatory for Biodiversity is an instrument that the Aspromonte National Park and the University of Calabria have to promote the knowledge of flora, fauna, habitats and ecosystems of Calabria. A section is dedicated to climate change The main natural hazards which the AUGGp is exposed to are related to seismicity, floods and forest fires.

The Aspromonte National Park maintains a department to monitor, prevent and fight forest fires. Likewise, it develops works of hydrological restoration and prevention of floods. The aUGGp cooperates with other administrations and institutions in the hazards related to seismology and large avenues.
E.3 MANAGEMENT

Recommendation: yes/no

The National Park Authority is an entity having legal status under the applicable law (a Public Utility Company) and, like all other National Park Authorities, in accordance with Law no. 394 of 1991, it is subject to the Law of 20 March 1975 no. 70. The Ministry controls all relevant political activities and all administrative acts released by the board of Directors and by the Community of the Park. Regarding the organisation of the Park Authority, it consists of an operational and a management staff. Park Authorities consists of the following bodies:

The President: is the legal representative of the Park, coordinates all activities, carries out the functions delegated by the Board of Directors.

The Board of Directors: It consists of 8 members: four representatives of the municipalities, an expert appointed by the Minister of the Environment, an expert appointed by the Minister of Agriculture, an expert ISPRA (Institute for Environmental Protection and Research), an expert indicated by the Association for Environmental Protection.

The Executive Board: carries out the functions under the Statute of the Park and it consist of three members, appointed within the Board of Directors, including the President.

The Audit Board: it controls all acts of accounting of the Park in accordance with the accounting rules of the State and on the basis of accounting regulations of the Park, approved by the Minister of the Treasury in consultation with the Minister for the Environment.

The Park Community: it consists of 39 members including the Presidents of regions and provinces, and 37 Mayors of the municipalities whose territories are included within the areas of the Park.

The Park community is the consultative and advisory body of the Park, its opinion is mandatory on the regulation of the Park, on the plan for the Park, on the budget and the final accounts. The dialogue with the main stakeholders of the area proposed as the Geopark has been intense during the preparation of the plan for the Park activities through a collaboration with all the representatives of the municipalities of the Park that led to the approval of the plan for the Park.

Technical committee of the Geopark.

For the Geopark project, a technical committee for the candidacy of the whole territory of the Aspromonte National Park to Geopark, has been set up. The committee has representatives from Park, from the Regional and National Order of Geologists, a representative of ISPRA (Higher Institute for Environmental Protection and Research) and experts of recognised scientific expertise of the National and European Geoparks network. The commission has prepared and validated the research work of geosites and the application file of the Geopark project. Together with the Regional Order of Geologists and local associations, sponsored by the Park, seminars have been organised, with the participation, among others, of professors of the Universities of Catania and Calabria and the Mediterranean University of Reggio Calabria.

The staff of the Park consists of 41 employees, belonging to different units; 15 of them carry out administrative tasks, 11 are in charge for technical tasks and have different roles: 1 engineer, 1 architect, 3 forestry specialists, 1 agronomist, 2 geometrists, 1 biologist, 1 geologist.

The organisational scheme of the National Park-aUGGP
The Aspromonte aUGGp has a specific annual budget. In 2018:

| Expenses for geo-territorial activities of the Park territory | 40.000,00 € |
| Expenses for the geo-evaluation and application of the UNESCO Global Geoparks Park | 200.000,00 € |
| Institutional communication and Environmental education | 40.000,00 € |

The budget forecast for the period 2019-2022 is:

| Expenses for geo-territorial activities, geo-promotion and geotourism of the Geopark territory | 80.000,00 € |
| Expenses for the geo-valorization, scientific research and infrastructure of the Geopark | 240.000,00 € |
| Calabria Trail Project | 1.480.000,00 € |
| Park Cycle paths | 2.030.000,00 € |
| Tourism-territorial marketing plan | 140.000,00 € |

A special structure: the office for the Geopark project consisting of an agronomist, a biologist, a geologist (on a contract base), an engineer and an architect. It is an inter-departmental office, head of “Biodiversity and Territory Service”, which collaborates with the “Planning and Management Operations” sector and with all other offices, in order to ensure the needs for all activities related to management, safeguarding and the valorization of the abiotic, biotic and historical-cultural system of the geopark project. The Office of the Geopark project deals with the identification of the main geological sites in the Park and of the interrelationship system that they have with the environmental and cultural heritage present in the different areas within the territory of the Park. The Geopark Office are integrated by the following persons (we met all of them during our evaluation mission):

**Director** Sergio Trangolo. Forest Scientist / **Manager**: Sabrina Santagati

**Geo-Scientist** Serena Palermiti. Geologist (contract based)

**Technical Collaborators:**
- Antonino Siclari. Agronomist - Environment conservation, environmental education, local production.
- Sabrina Scalera. Engineer - Trails, routes, signage and maintenance and cleaning.
- Silvia Lottero. Architect - Museum Network, Infopoint Maintenance, Crafts and Arts and Culture.

To achieve the above mentioned objectives the following tools were adopted:

1. Plan for the Park: the Plan of the Park and the respective technical measures, entering in force from January 2009 (in accordance with art. 12 of act no. 394/91)
2. Plan of Performance, through which the Park sets strategic and operational goals and resources are to be allocated, objectives and tasks assigned to the managerial and employee personnel.
3. The strategy of improvement and development of the Unesco Global Geoparks is included in this action plan European Sustainable Tourism Chart, highlighting the synergies and coherences of them. (http://www.parcoaspromonte.gov.it/cets/strategia_pianoaz.pdf), improving the opportunities of development, in cooperation with entities, companies and local communities.

**Recommendations:**
- Integrate in the geopark team a permanent position for a geologist. The existing geologist is working on a contract base; Development of a geopark specific strategy in order to better promote the geopark activities and increase the visibility; Reinforce the existing partnership with different local stakeholders; The geopark could play an important role of cohesion for all communities inside and outside the geopark territory.

**E.4 OVERLAPPING**

Recommendation: yes/no

The aUGGp doesn’t overlap partially or totally with other UNESCO designated sites. The area proposed as a geopark has different levels of protection which, over the years, have overlapped each other. In addition to the existence of the national park, in the aUGGp area there are other protected areas included in the Natura 2000 Network. (see also point E.2).
E.5 EDUCATIONAL ACTIVITIES

Recommendation: yes/no

The Aspromonte Geopark offers educational activities and training courses for different kind of people and collectives. Many activities are developed in the schools of the territory, aimed at schoolchildren visiting and improving knowledge of the geopark. On the other hand, they work with the schools teaching staff in the territory with the objective to improve a better knowledge about the Geopark and its resources.

Recommendations

It is important the training work with the official guides, partners and tourism companies through the organization of several specific training courses on geoparks and geodiversity and other aspects related to culture, nature, etc.

E.6 SUSTAINABLE TOURISM

Recommendation: yes/no

Aspromonte aUGGp is adhered to the European Sustainable Tourism Chart.

The strategy of improvement and development of the Unesco Global Geoparks is included in this action plan, highlighting the synergies and coherences of them. ([http://www.parcoaspromonte.gov.it/cets/strategia_pianoaz.pdf](http://www.parcoaspromonte.gov.it/cets/strategia_pianoaz.pdf)), improving the opportunities of development, in cooperation with entities, companies and local communities.

During the mission we had the opportunity to talk with some managers of tourism companies, official guides, local politicians, associations, etc., about sustainable tourism and development highlighting the new opportunities and challenges that the Geopark gives them.

As It was explained in section E.1.3 (Visibility) and E.1.4. (Facilities and infrastructure), the Aspromonte aUGGp has done an effort to improve their strategy.

Aspromonte aUGGp is generating new offers related to geotourism: Publishing a new Tourism Map that include the Geopark Geosites, printing new brochures about paths linked to geosite, adapting and building new infrastructures, training the official guides and tourist companies, promoting the Geopark and its resources and cultural heritage, etc.
E.7 SUSTAINABLE DEVELOPMENT & PARTNERSHIPS

Recommendation: yes/no

E.7.1 Sustainable development policy

The geopark development is part of the Multiannual Social and Economic Plan with objectives:
- contrast to the depopulation of internal areas and to the sense abandonment;
- cultural growth and improvement of people's lives;
- preservation of the natural heritage conjugated with the increase real income and qualified employment of populations recompressed in the perimeter of the park.

The strategic priorities of the Plan are:
- recovery of abandoned or depopulation centers, as well as historical testimonial building;
- establishment of a service network (mobility and transport, health, culture, sport and other recreational activities);
- promotion of ecotourism, location of activities with high added value and low environmental impact;
- promotion of quality brands and defense of typicality for agri-food supply chains

This Plan makes sustainable development a single vision and the management of the interventions, all organized into four sectors that cover all the areas of intervention of the same plan:
- conservation, protection and enhancement of the environmental heritage, landscaping and settlement of the park;
- improvement and enhancement of cultural identities of the park communities;
- development of sustainable economic activities;
- system actions

More information:

In this sense, it is important to bear in mind that according to the Italian Mountain Law (Legge 97/1994), the Aspromonte National Park hires local companies and cooperatives to carry out works related to the defence or improvement of the environment and landscape.

The territory between the two seas (Tyrrenian and Ionian) has its own identity forged during millennia by Greek, Norman, Latin and Mediterranean interferences and migrations. From the socio-economic and cultural point of view local communities are strongly bounded and interconnected. Even the geopark territory is limited to the central part, without reaching the sea shores, it can play an important role in fostering local development. As the geopark President Giuseppe Bombino mentioned several time during the mission, there is a need the geopark strategy and activities to be extended outside its territory.

E.7.2 PARTNERSHIPS

Recommendation: yes/no

Related to the implementation of the European Charter of Tourism Sotenible has been established a Forum of participation in which they are integrated, in addition to the authority of the protected area, institutions, associations, tourist companies of the territory are integrated. This Forum aims to be a place of comparison and decision for the implementation of the Action Plan for Sustainable Tourism.

Aspromonte National Park maintain a website where they provide information about the Geopark, the application process, tourist facilities, planning, and activities that they or their partners organization.

Aspromonte National Park has a roster of official guides for hiking, climbing, other outdoor activities, even cultural and ethnographic. The official guides are trained and authorized by National Park to work in the area.
E.7.3 FULL AND EFFECTIVE PARTICIPATION OF LOCAL COMMUNITIES AND INDIGENOUS PEOPLES

Recommendation: yes/no

In the development of the evaluation mission we have had the opportunity to meet several times in different locations with representatives of institutions, associations, volunteer groups, tour companies, local cooperatives and members of local communities. In these meetings we have confirmed the strong support that Aspromonte aUGGp has in its territory. We have also observed the synergies generated between the geopark structure and the different partners and stakeholders.

We have known very interesting projects related to the development of tourist offers, value of cultural or natural resources, cooperation and collaboration projects. Joint promotions, training courses, logistical support, monitoring or maintenance work, dissemination of natural and cultural values, etc.

On the first day, during the lunch with tasting of typical local food at forest shelter “Cantiere La Verde” in Campi di Bov, we had the opportunity to know the Cooperative Naturaliter work. Andrea Laurenzano explained us that Naturaliter is a Co-operative Tourism Society, founded in 1998. They are Aspromonte aUGGp partners. Their mission is to encourage, extend and implement cooperation among local communities in de-populated zones of the Mediterranean, providing such communities with opportunities for sustainable development in full respect of the environmental resources of each area, and opportunities for social and cultural interaction with nature-tourists.

On the second day, there was another picnic/lunch at the recreational area “Pietra Cappa” (Natlie di Careri). It was a Pic-nic/lunch with tasting of especially bread of Natlie di Careri and local typical food. We had the opportunity to share experiences, listen to and talk with several association representatives about opportunities for sustainable development, and the important roll that local
communities plays in this development. Especially interesting was Anna Maria Sergi, president of Ass. Pro Loco K di Careri, about the role of rural women in this process.

There are many projects that arise from the community that are supported by the geopark and many geopark projects which the local community collaborates.

There is an initiative of the geopark to invite the members of the local community to sign a commitment of support with the geopark project that has achieved more than 300 supports.

Recommendations

The Geopark already signed or developed partnership agreements with different local stakeholders and associations. These agreements play a key role in sustainable development of the geopark territory and in development of specific common activities related to valorization of local products, geotourism, education, research, cultural activities, etc. This practice needs to continue, to be reinforced and specific activities adapted and integrated within the geopark strategy and activity plan.

E.8 NETWORKING

Recommendation: yes/no

With the support of the regional government of Calabria, Aspromonte aUGGp collaborates with other protected areas and places of interest in the development of a joint tourism promotion project, among these places are the Sila National Park-Unesco Biosphere Reserve and Pollino National Park-Unesco Global Geopark.


The Geopark cooperates with the Italian Geoparks Committee.

The Geopark participates in the Italian Geopark Workshops.

Aspromonte aUGGp collaborates with Earth Week (October) in Italy, organizing a specific program within the framework of this national event.

E.7 SELLING OF GEOLOGICAL MATERIAL

Recommendation: yes/no

The aUGGp is not involved in trading of geological material.
F. DISCUSSION

The geopark project started two years ago and arrived to be known and supported by local communities, associations, institutions and administrative bodies. It has a management structure supported by the National Park, which provides material and human resources for proper management, and provides visitor centers, trails, recreational areas, lookouts, signage, etc. This infrastructure is being adapted to inform and make known the park territory also as a geopark. Likewise, the idea of a geopark integrates horizontally into all the management elements of the national park, as well as generating specific programs and projects for promotion, communication, signalling, environmental education, research, cooperation, etc. A clear strategy will allow the geopark team to reinforce its position and to play a key role in local development.

During the visit we met representatives of more than 20 local associations, universities, local administrations, entrepreneurs, artists and local people. All of them expressed their will and hope for cooperation and new tourism, educational and cultural common projects. All of them expressed their support for the geopark and admitted the need for further efforts to better define the role of each one and develop clear common activity plans.

The geopark territory is well defined, there is clear boundary, a management body and a specific budget. The geopark territory has geological, natural and cultural sites of international significance and is managed with a holistic concept of protection, education and sustainable development.

G. RECOMMENDATIONS

G.1 PROPOSAL

In compliance with the Operational Guidelines for UGGps we propose ACCEPT the application of Aspromonte National Park aUGGp to become a Unesco Global Geopark

G.2 RECOMMENDATIONS

All information we gathered from documents provided, field visit, specialist and people opinions indicate Aspromonte Aspiring Geopark as a good geopark project, that is fulfilling EGN and UNESCO requirements. This evolution has to be followed for the next years on the same way with a special attention on holistic approach of geologic, nature and cultural heritage conservation and promotion. Our recommendations are as follows:

Strong recommendations:

1. Development of a new geopark strategy in order to create a framework for geopark reinforcement that improve the knowledge that partners and local people have about the Aspromonte as a geopark, understanding and sharing the objectives and philosophy of global Geoparks, and to increase the geopark visibility

2. Aspromonte Aspiring UNESCO Geopark already signed or developed partnership agreements with different local stakeholders and associations. These agreements play a key role in sustainable development of the geopark territory and in development of specific common activities related to valorization of local products, geotourism, education, research, cultural activities, etc. This practice needs to continue, to be reinforced and specific activities adapted and integrated within the geopark strategy and activity plan.

3. The territory between the two seas (Tyrrenian and Ionian) has its own identity forged during millennia by Greek, Norman, Latin and Mediterranean interferences and migrations. From the socio-economic and cultural point of view local communities are strongly bounded and interconnected. Even the geopark territory is limited to the central part, without reaching the sea shores, it can play an important role in fostering local development. As the geopark President Giuseppe Bombino mentioned several time during the mission, there is a need the geopark strategy and activities to be extended outside its territory.
Recommendations

1. Integrate in the geopark team a permanent position for a geologist. The existing geologist is working on a contract base;
2. Important geosites and geological phenomena are outside the geopark territory, especially near the sea coast (e.g. fossiliferous sites, terraces). These are very important in understanding, interpretation and promotion of the geopark geology. It is recommended these assets to be connected to existing geotrails or to develop new geotrails able to connect geologic, natural and cultural sites from inside and outside the geopark territory;
3. Integration of geological and cultural heritage (tangible and intangible) in existing visiting trails (touristic trails);
4. Development of permanent exhibitions dedicated to local Geodiversity and Geoheritage in the aUGGp visitors centers.
5. Create info-areas in the aUGGp visitors centers dedicate to the Geoparks in the world in order to promote the objectives and philosophy of global Geoparks and improve the visibility of the other Geoparks in Italy, Europe and the world.
6. Development of a marketing program that coordinates and helps to increase the impact of all the promotional activities and actions done by the geopark (targets, resources, merchandising, social media, etc);
7. Improve the cooperation and know how transfer with others geoparks. A key role has to be played by the Italian National Forum;
8. Improve the website of the Aspromonte, especially the contents update.
10. The village Natile Vecchio di Carei is a good example that shows how the people resilience helps to face the natural disasters and its consequences. In cooperation with local community, an Info-point about floods and people in this village or another kind of facilities can improve the promotion of the links between Geological Hazards and human being, and how it affects the culture, land-planning, etc.
11. Is necessary a way to monitoring the visitors and tourist that helps to take the adequate decisions and planning the tourism offers.

H. ITINERARY

19 July 2018, Thursday

Wellcome Dinner with Aspromonte Geopark Team
Hotel Excelsior - Reggio Calabria.

Participants: Sergio Tralongo. Director aUGGp
Sabrina Santagati. Manager
Chiara Parisi. Communication manager

FIRST EVALUATION MISSION DAY (20 July 2018, Friday)

08.45: Transfer by minibus to Landscape 4 – Area Grecanica

Participants: Sabrina Santagati. Manager
Serena Palermiti. Geologist
Sabrina Scalera. Engeneer.
Chiara Parisi. Communication manager
Angelo Frangipani. Official Guide. Naturaliter
From 10,30:

Landscape 4 – Area Grecanica. Experiential visit narrated of the two geosites “Rocca del Drako” and “Caldaie del latte” (Roghudi).

Landscape 1 - Heart of the Park. Panoramic view on International Geosite “Grande Frana Colella”.

Participants:
Sergio Tralongo. Director
Sabrina Santagati. Manager
Serena Palermiti. Geologist
Sabrina Scalera. Engineer
Chiara Parisi. Communication manager
Angelo Frangipani. Official Guide. Naturaliter
Noemi Evoli. Official Guide. Photographer
Roberto Azzara Photographer
Alessandro Azzara. Photographer
Alessandra Guibaudi. Tourism Company
Tutela Aspromonte Cooperative Workers
Fulvio Cama. Musician and poet.
Tiziana Salazzaro. Filoxenia Project

h. 13,30: Pic-nic/lunch with tasting of typical local food at forest shelter “Cantiere La Verde” in Campi di Bova (1,200 mt).

Participants:
Sergio Tralongo. Director
Sabrina Santagati. Manager
Serena Palermiti. Geologist
Sabrina Scalera. Engineer
Chiara Parisi. Communication manager
Noemi Evoli. Official Guide. Photographer
Roberto Azzara Photographer
Alessandro Azzara. Photographer
Fulvio Cama. Musician and poet.
Tiziana Salazzaro. Filoxenia Project

h. 15,00: Transfer to Bova, Capital of Area Grecanica and visit of the village, one of the most important and well preserved of Geoparco (Landscape 4 – Area Grecanica.).

Participants:
Sergio Tralongo. Director
Sabrina Santagati. Manager
Santo Casile. Mayor of Bova
Chiara Parisi. Communication manager
Serena Palermiti. Geologist
Sabrina Scalera. Engineer
Lucia Giovanna Pettrulli Greco-Calabrian Language Museum Guide
Khen Thomas Bennet. Translator
h. 17.30: Forum. Meeting with the local Institutions and stakeholder at the Park Visit Center.
Following video projection by the Park.

Participants:

- Giuseppe Bombino. President
- Sergio Tralongo. Director
- Sabrina Santagati. Manager
- Chiara Parisi. Communication manager
- Santo Casile. Mayor of Bova
- Carolina Nucera. Comuna di Condofuri.
- Domenico Penna. Mayor of Roccaforte del Greco e Consiglio Direttivo Gal Area Grecanica
- Pierpaolo Zavattieri. Mayor of Roghudi
- Serena Palemiti. Geologist
- Sabrina Scalera. Engineer.
- Maria Gabriella Petronio Dipendente del Parco presso Bova
- Anna Maria Petronio Dipendente del Parco presso Bova
- Gaetano Ortolano. Catania University
- Rosalda Punturo. Catania University
- Khen Thomas Bennet. Translator
- Noemi Evoli. Official Guide. Photographer
- Roberto Azzara. Photographer
- Alessandro Azzara. Photographer
- Camilla Cartella Videomaker
- Tiziana Salazzaro. Filoxenia Project
- Alessandra Ghibaudi Gal Area Grecanica
- Bruno Masiano. Tutela Aspromonte Cooperative
- M. Olimpia Squillaci. Associazione Jalo’ Tu Vua
- Giovanna Vadalà. ASS. O Arthammodis Ergasia
- Salvatore Natoli. Ass. Arci Pesca Fisa
- Veronica Petruelli. Ass. Arci Pesca Fisa
- Piero Polimeni. Ass. Pro-Pentadactilo
- Santo Marra. Parco Ecolandia
- Domenico Vitale. Il Bucaneve Albergo
- Alessandro Milardi. Ass. Visitaspromonte
- SOC.COOP. SAN LEO
- Caterina Mesiano. Museo Paleontologia-Scienze Naturali dell'Aspromonte
- Lillo Giuffre. ASD Bampuriddha.
- Pietro Romeo. Ass. Guide Ufficiale del Parco
- Giuseppe Martino. Guide Ufficiale del Parco
- Andrea Ciulla Guida Ufficiale del Parco
- Demetrio D’arrigo. Ass. Aspromontewild
- Gregorio Minniti. Ass. Grupo Archeologico Valle Dell’Amendolea
- Antonino Manti. Ass. Grupo Archeologico Valle Dell’Amendolea
- Lillo Minniti. Comitato Civico pro Condofuri
- Davide Malara Comitato Civico pro Condofuri
- Carmelo Albanese. Ass. Excursionistica Gente in Aspromonte
- Elvira Romeo. Ass. Excursionistica Gente in Aspromonte
- Totò Pellegrino. Ass. Excursionistica Gente in Aspromonte
- Carabinieri in rappresentanza del Comando Stazione di Bova
- Michele Valenzise Agronomo Gruppo Direzione Lavori di gevalorizzazione
h. 20.00: Typical dinner at Grecanic Restaurant of Cooperativa San Leo and ethno-musical animation.

Participants: Giuseppe Bombino. President
Sergio Tralongo. Director
Sabrina Santagati. Manager
Chiara Parisi. Communication manager
Serena Palermiti. Geologist
Gaetano Ortolano. Catania University
Rosalda Punturo. Catania University
Angelo Frangipani. Official Guide. Naturaliter
Noemi Evoli. Official Guide. Photographer
Roberto Azzarà. Photographer
Alessandro Azzara. Photographer
Camilla Cartella. Videomaker
Tiziana Salazzaro. Filoxenia Project
Domenico Penna. Mayor of Roccaforte del Greco
Enza Bruno Bossio. National Deputy

SECOND EVALUATION MISSION DAY (21 July 2018, Saturday)

h. 08.00: Transfer by minibus to Landscape 5 - Area of Locride.

From h. 10.00:
- Meeting with local associations and institutions in square of Natile Vecchio di Careri.
- Landscape 5 – Area della Locride. Visit to the two Geosites of international relevance “Rocce di San Pietro” and “Pietra Cappa” (Natile di Careri)

h. 13.00: Pic-nic/lunch with tasting of especially bread of Natile di Careri and local typical food.

Participants: Sabrina Santagati. Manager
Serena Palermiti. Geologist
Chiara Parisi. Communication manager
Sabrina Scalera. Engineer.
Gaetano Ortolano. Catania University
Rosalda Punturo. Catania University
Rocco Zinghini. Ass. Historical
Attilio Varacalli Ass. Historical
Bruno Romeo Ass. Historical
Francesco Bissano Ass. Historical
Rosario Callipari Ass. Historical
Maria Currá. Ass. Natilottellando
Antonella Trimboli Ass Natilottellando
Giuseppe Sapone Ass Natilottellando
Baldo Bartone Ass.Natilottellando
Rosa Pasqualina Denara Ass Natilottellando
Chiara Strangio. Cooperativa Sociale Oltra Speranza
Anna Rocca Cooperativa Sociale Oltra Speranza
Fabio Parisi Cooperativa Sociale Oltra Speranza
Enzo Rocca Cooperativa Sociale Oltra Speranza
Mariella Rocca Cooperativa Sociale Oltra Speranza
Valentina. Marvelli. Ass. Centro Italiano Protezione Civile
Domenico Marvelli. Ass. Centro Italiano Protezione Civile
Cesare Marvelli. Ass. Centro Italiano Protezione Civile
Parroco Chiesa di Natile di Careri
Crisitina Marvelli. Cooperativa Rinascita
h. 15,00: Transfer to Amendolea di Condofuri and visit to International Geosite “Fiumara Amendolea”

Participants: Sabrina Santagati. Manager
                Serena Palermiti. Geologist
                Chiara Parisi. Communication manager
                Sabrina Scalera. Engineer.
                Gaetano Ortolano. Catania University
                Rosalda Punturo. Catania University
                Angelo Frangipani. Official Guide. Naturaliter
                Noemi Evoli. Official Guide. Photographer
                Camilla Cartella Videomaker
                Roberto Azzara. Photographer
                Alessandro Azzara. Photographer

(Landscape 4 – Area Grecanica).

h. 19,00: Transfer to the farmhouse “Il Bergamotto”, producer of organic bergamot, famous citrus that only grows in this area and nowhere else in the world. Guided tour to the farmhouse crops and plantations.

h. 20,00: Typical dinner and animation “Cunti, canti e danze tipiche” in the farmhouse. Overnight stay at the farmhouse.

Participants: Sergio Tralongo. Director
                Sabrina Santagati. Manager
                Serena Palermiti. Geologist
                Chiara Parisi. Communication manager
                Sabrina Scalera. Engineer.
                Gaetano Ortolano. Catania University
                Rosalda Punturo. Catania University
                Angelo Frangipani. Official Guide. Naturaliter
                Ugo Sergi. Agriturismo Il’Bergamotto
                Noemi Evoli. Official Guide. Photographer
                Roberto Azzara. Photographer
                Alessandro Azzara. Photographer
                Camilla Cartella Videomaker
                Francesco Stelitano. Musician
                Danilo Bracanti. Musician
                Antonino Minniti. Musician
                Paolo Nucera Musician
THIRD EVALUATION MISSION DAY (22 July 2018, Sunday)

h. 08,30: Transfer by minibus to Gerace. Landscape 5 – Area della Locride.
Gerace is considered one of the most beautiful, historical and artistic towns of Calabria.

From h. 10,00:

- Meeting with local associations and institutions at Park Visit Center of Gerace.

Participants: Giuseppe Bombino. President
Sergio Tralongo. Director
Sabrina Santagati. Manager
Serena Palermiti. Geologist
Chiara Parisi. Communication manager
Sabrina Scalera. Engineer.
Gaetano Ortolano. Catania University
Rosalda Punturo. Catania University
Angelo Frangipani. Official Guide. Naturaliter
Noemi Evoli. Official Guide. Photographer
Roberto Azzarà. Photographer
Alessandro Azzarà. Photographer
Camilla Cartella Videomaker
Marisa Larosa. Ass. Cult. Leggendo tra le Righe
Rostta Bolognino. Ass. Cult. Sapiri e Sapuri
Laura Multari. Tourist entrepreneur.
Eugenia Chindemi. Scuola di Musica “The Sparring Diamonds”
Salvatore Greco. Architec-Desinnger
Arturo Tucci. Ass. Pro FUndazione Carlo Ruggiero
Vincenzo Repaci. Soccorso Alpino Aspromonte
Pino Perrone- Guida turistica AIGAE
Vincenzo Ielacqua Addetto stampa del Parco

- Landscape 5 – Area della Locride. Guided tour of “Geosite and Gerace village”.

h. 13,30: Lunch at restaurant in the village.

Participants: Giuseppe Bombino. President
Sergio Tralongo. Director
Sabrina Santagati. Manager
Serena Palermiti. Geologist
Chiara Parisi. Communication manager
Sabrina Scalera. Engineer.
Gaetano Ortolano. Catania University
Rosalda Punturo. Catania University
Angelo Frangipani. Official Guide. Naturaliter
Noemi Evoli. Official Guide. Photographer
Roberto Azzarà. Photographer
Alessandro Azzarà. Photographer
Camilla Cartella Videomaker
Totó Pellegrino. Ass. Excursionistica Gente in Aspromonte

h. 15,00: Transfer to Reggio Calabria and visit of Archeological National Museum (Landscape 3 - Area dello Stretto).

h. 18,00: Closing technical meeting with Aspromonte Geopark Team.

Participants: Giuseppe Bombino. President
Sergio Tralongo. Director
Sabrina Santagati. Manager
Serena Palermiti. Geologist
Chiara Parisi. Communication manager
Sabrina Scalera. Engineer.
Antonino Siclari Agronomo Geopark Team
Vincenzo Ielacqua Addetto Stampa del Parco

Hotel Excelsior - Reggio Calabria.
Dinner with Aspromonte Geopark Team

Participants: Sergio Tralongo. Director aUGGp
Sabrina Santagati. Manager
Serena Palermiti. Geologist.
Sabrina Scalera. Engineer
Chiara Parisi. Communication manager
Geological features of the Pollino and of the Aspromonte Massif are deeply different. Indeed, although both are deriving from the mutual collision between European and African plates, the Pollino Chain represents from a geodynamic point of view a wrinkled relic of the original African continental margin, (i.e. deformed Africa and Adria crust – Fig.1), while the Aspromonte Massif is the result of the deformation of the southern European continental margin, divided from the Sardinia-Corsica block after the opening of the Tyrrhenian proto-oceanic crust (Cirrincione et al., 2015).

Recent interpretation have interpreted Calabria and Peloritani as an accreted composite terrane resulting from the amalgamation of a northern (central and northern Calabria – Sila and Catena Costiera) and a southern terrane (southern Calabria - Aspromonte and north-eastern Sicily - Peloritani). Pollino and Taormina tectonic lines bound this Calabria-Peloritani Composite Terrane to the north and south, respectively. Both lines have been considered as deep-seated strike-slip faults even if, recent surface data suggest that the Pollino line is a complex system of predominantly left-lateral strike-slip fault, whereas the Taormina line would be a transpressive structure.

From a tectono-stratigraphic point of view, the differences from these two sectors of the southern Apennine are then very significant. Rocks from the Pollino Chain are almost totally characterized by sedimentary rocks in continuity with the sedimentary formations of the central and southern Apennine; the Mesozoic age lime- and dolo-stone units are stacked in a nappe-pile edifice with units of ocean derivation, known in literature with the term of Ligurian units, which constituted during Jurassic age, the floor of the ocean subdividing African and European plate.

By contrast, the rocks of the Aspromonte Massif are Palaeozoic-age magmatic and metamorphic lithotypes exclusively of continental crust derivation and for this reason very different from the rest of the southern Italian geologic context.

These differences were yet highlighted in nineteenth century when the naturalist, which crossed the Pollino chain, during the southward Italian journey, immediately realized that something in the landscape changed: the
monotonous sedimentary carbonate-terrigenous sequences of the Apennine replaced land of a completely different kind. The morphology of the land changed radically becoming harsh and bumpy. The landscape assumed severe and imposing lines, "between high wooded mountains, which encircle brown valleys from the bottom of which rises the symphonic concert of running waters" (De Lorenzo, 1897), simulating typically an Alpine landscape, so much so that travelers' notebooks became more evocative and adventurous, often slowed down by difficulties and unforeseen events connected both to the roughness of the territory and to the precarious or almost non-existent viability.

From this brief description, arise as the Pollino Chain represents the southernmost termination of the thin-skinned thrust and folds structured Apennine belt, characterised by sedimentary formation piled up on oceanic derived units.

The backbone of the Aspromonte Massif is instead composed by a nappe-pile edifice constituted by metamorphic basement tectonic slices characterized by relics of Hercynian derived rocks locally intruded by peraluminous granitoids, replaced by a deep-seated Alpine metamorphic overprint. The nappe-pile edifice are then covered by the syn-orogenic deposition of the continental clastic deposits of the Stilò Capo D’Orlando Formation and back-thrusted by the Argille Varicolori clays (Fig.2).

Fig. 2 - Detailed geological map of the Aspromonte Massif nappe-pile edifice (Ortolano et al., 2015)

References

Cirrincione, R., Fazio, E., Fiannacca, P., Ortolano, G., Pezzino, A., Punturo, R. (2015) - The Calabria-Peloritani Orogen, a composite terrane in Central Mediterranean; Its overall architecture and geodynamic significance for a pre-Alpine scenario around the Tethyan basin - Periodico di Mineralogia, 84 (3B)