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# CRUZIANA

GEOPARK NATURTEJO DA MESETA MERIDIONAL-EUROPEAN AND GLOBAL GEOPARK - MONTHLY REPORT

**In this issue:** -- European Geoparks Meeting and Conference at Cilento and Valo di Diano Geopark – Mathematics of Planet Earth 2013: 15th Conference of the International Association for Mathematical Geosciences in Madrid – GEOschools last Meeting and Conference in Athens – IV Typography Meeting in the capital of the Epigraphy...and more!



Olá/Hola/Ciao/Bonjour/Γειά σου/Hallo/God Dag/Salut/Zdravo/Hello/Ahoj/Helo/Helló/ Hei

## **Geo-stories of our places and people: Cafede**

Cafede is part of Castelo Branco plain, made of the same granites and the same flatness imposed by the geological Time. Small area of 15,51 km<sup>2</sup> narrows in a triangle-shaped parcel between the Ocreza valley at East, vague till Santiago bridge to become deeply incised in the vast Meseta, and the Freixial Stream, a tributary, to West. The almost inexistent valleys are structured here according with the major fractures in the granite rock. Deep weathering of granite makes the landscape almost monotonous. In the sacred Spring of Our Lady of Valverde (Green Valley) people found the cure for their ailments of body and spirit since along time ago. In this site of geocultural interest the chapel was built according to the geometry of the granite rocks at the bottom of a very nice small valley. The altar, external walls and churchyard are made or incrustated in this very coarse, "horse-teethed" granite. Cafede is an ancient piece of land: more than 100 years ago 29 Neolithic stone axes were found; at Lameira de Caria, with a landscape upturned by granite boulders, there are 30 medieval graves. The Ribeirinha stream is crossed by a small granite bridge of uncertain age, in an environment of serenity. The village of Cafede accomodates up two small hills separated by a diminute valley. It is worth to walk up to the highest one to find the mother church of Saint Anthony and the Manor of the Count of Castelo Branco, by streets whose toponymy was not banned from History, such as Oliveira Salazar Street, one of the 20 still existing in Portugal. 263 people live here, with a grocery and three coffee shops. Local entrepreneurial shows the proximity to Alcains, with a company of Marbles and Stonework, 4 businessmen dedicated to livestock and olive oil, and few more. Ocreza valley shows good soils and permanent water supply, which deserve to be used. Concerning local products the reference goes for the originality at a regional level of José Barata, storing life memories as wood miniatures inside bottles. His art deserves a full-study during his life for the development of a project for a dedicated House-Museum, taking Cafede into Castelo Branco museums network. The development of tourist activities in the village could be bursted by the Sacred Spring Trails, a signaled footpath to explore the landscapes between Cafede and Our Lady of Valverde, fostering the recovery of local heritage, such as the bridge, the wind mill, the Ribeirinha watermills and the Santiago chapel, taking advantage of local landscapes, such as Lameira de Caria or Canchos de Beja and creating conditions to inhabitants for the practice of sport daily, or during the pilgrimage to Our Lady of Valverde, on the 5th Sunday after the Easter.



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The proximity of the city of Castelo Branco, just 10 km far, would enable the recovery of traditional houses and manors coming to a ruined condition in the village of Cafede and their leasing with controlled costs, which could contribute for conservation of the local heritage and socioeconomic revitalization of the village.

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Front page: (Objectiva: Geopark Project, [www.naturtejo.com/objectiva](http://www.naturtejo.com/objectiva))

# ACTIVITIES OF THE MONTH



**2 September - Workshop "Where the Rocks go?" for the kids of Idanha-a-Nova.** This workshop was developed by Hugo Oliveira and Manuela Catana for kids from kindergarten and primary school still on holidays. They recognized the scientists that study Earth, its rocks and minerals, the geologists. Then pupils found out that Idanha-a-Nova is part of the geopark where several geomonuments exist and must be protected. They also found the difference between rocks and minerals, and met different rocks such as limestone, basalt, granite, sand, shale, clay, quartzite and marble. Finally, pupils were organized to play the memory game using images of 5 geomonuments found in Idanha-a-Nova.



**2-6 September - 15th Annual Conference of the International Association for Mathematical Geosciences.** Under the subject "Frontiers of Mathematical Sciences: New approaches to understand the natural world" Naturtejo Global Geopark participated in the celebration of the International Year of Mathematics and the International Year of Statistics 2013 through the 15th Annual Conference of the International Association for Mathematical Geosciences, organized by the Institute of Geology and Mining of Spain, at Madrid.

It is widely recognized that the degree of development of a science is given by the transition from a mainly descriptive stage to a more quantitative stage. In this transition, qualitative interpretations (conceptual models) are complemented with quantification (numerical models, both, deterministic and stochastic).



This has been the main task of mathematical geoscientists during the last forty years: to establish new frontiers and new challenges in the study and understanding of the natural world.

Our planet, our living place, is a finite space which suffers of increasingly worrying stresses caused by anthropic activities. The latter has implied an increase in the complexity of the problems faced by the geoscientists. The solutions of those problems require a common effort for pushing the frontiers of quantification in geosciences further: to establish new models, to develop new paradigms, to think of new transferences of methodologies from other areas of science, and to expand the number of applications. There is a need for increasing the understanding of how the natural world works and only the synergy between classical geosciences and mathematics can provide the methodological tools to tackle the complex problems in modern geosciences. Because of all of this, new frontiers in the knowledge of the natural world appear as key words of the conference title in order to motivate geoscientists and mathematicians in pursuing this common task.

The Geological Survey of Spain (Instituto Geológico y Minero de España – IGME) considers IAMG 2013 would be an excellent opportunity for colleagues from countries all over the world to interchange knowledge and experience. IAMG 2013 also provided a platform for key specialists in the Geological field to share their strategic vision of the current state of Mathematical Geosciences, and the direction this field may take in the upcoming years.

The North American Mathematical Science Institutes propose that 2013 be a year of Mathematics of Planet Earth - MPE2013 – interpreted as broadly as possible (please consult [www.mpe2013.org](http://www.mpe2013.org) for further information). Earth is a planet with dynamic processes in the mantle, oceans and atmosphere creating climate, causing natural disasters, and influencing fundamental aspects of life and life-supporting systems. In addition to these natural processes, humans have developed systems of great complexity, including economic and financial systems; the World Wide Web; frameworks for resource management, transportation, and energy production and utilization; health care delivery; and social organizations. Human activity has increased to the point where it influences the global climate, impacts the ability of the planet to feed itself and threatens the stability of these systems. Issues such as climate change, sustainability, man-made disasters, control of diseases and epidemics, management of resources, and global integration have come to the fore.

Mathematics plays a key role in these and many other processes affecting Planet Earth, both as a fundamental discipline and as an essential component of multidisciplinary and interdisciplinary research. Mathematics of Planet Earth 2013 will focus mathematical research in these fields, provide a platform to showcase the essential relevance of mathematics to planetary problems, coalesce activities currently dispersed among institutions, and create a context for mathematical and interdisciplinary developments that will be necessary in order to address a myriad of issues and meet global challenges in the future.

Carlos Neto de Carvalho and Andrea Baucon, representing Naturtejo Global Geopark, were invited to be part of the Scientific Committee of IAMG 2013. Andrea Baucon was the convener of the 22nd Session of the conference “Recent Advances in Quantitative Methods applied to Stratigraphy and Palaeontology” where 7 papers were presented. The prestigious scientific publisher Springer published the Proceedings of the 15th Annual Conference of the International Association for Mathematical Geosciences in the Series “Lecture Notes in Earth System Sciences”, under the title Mathematics of Planet Earth, which includes a short paper by Carlos Neto de Carvalho and Andrea Baucon on the fractal signal of spatio-temporal distribution of Daedalus, a form of behavior common in the Armorican Quartzite so common in the Geopark.



**2-7 September - 12th European Geoparks Conference at Cilento, Vallo di Diano and Alburni Geopark.**

Cilento and Vallo di Diano Geopark held the 12th European Geoparks Conference, when the global development strategies of the Earth Sciences assume an important role in the world. The geo-hazards and climate change are strongly affecting all human activities and can limit the future of humanity. In fact, life, property, economic and financial losses due to natural hazards and the impact of disasters on society have both increased dramatically over the last couple of decades. Scientists - both physical and social-, policy makers, insurance companies, disaster managers, and the public themselves, have different ways for understanding and studying natural geo-hazards.

The choice of the Conference location was not casually done. In fact, Ascea is a modern, touristic village surrounding the Archaeological Park of the ancient Greek city "Elea", renamed as "Velia" by the Romans, one of the "cradles" of the western philosophy and civilization, by Parmenides and Zenone, recently named as UNESCO world heritage. The long and complex Ascea-Velia-Elea history represents both the first cultural, social and economics global "network" in the ancient world and testifies an actual "paradigm" of cohabitation between human society and geo-hazards. In fact, since its foundation, the town experienced natural disaster due to landslides, floods, and earthquakes. Tradition tells us how Parmenide, as nature philosopher understood type and dynamics of local geohazards, as teacher raised public awareness and, finally, as politician suggested planning and design measures for natural risk mitigation.

This conference aimed to:

1. Verify how Geoparks can direct the scientific knowledge of the academic community on these items;
2. Understand how the Geoparks address these issues in the educational system;
3. Disseminate the role of Geoparks on the public awareness and sustainable use of natural resources.

More than 450 delegates participated at the Conference, coming 41 countries and representing all continents, the best result ever in number of participants for a EGN Conference. Once more, the European Geoparks Conference was the main stage for the world and many of the delegates came to present their experience and best practices, not necessarily being involved with geoparks or aspiring projects, but to learn more about geoparks. Once again Naturtejo Global Geopark played an active role in this Conference, through Joana Rodrigues and Carlos Neto de Carvalho, by presenting a poster about the GEOschools EU project. Other papers on Naturtejo Geopark were presented about the annual school contest and geocultural heritage, namely co-authored by Manuel Catana.

Before that the 32nd European Geoparks Meeting was organized in the new Cilento National Park building in Vallo della Lucania where the EGN Coordination Committee Meeting decided the integration of 4 new geoparks, being now a total of 58 spread all over Europe. The new Geoparks are: Idrija Geopark, Slovenia; Hondsrug Geopark from the Netherlands; Sesia-Val Grande Geopark from Italy; and Kula Geopark from Turkey. Carlos Neto de Carvalho was engaged with presenting the new proposal for promotion of the brand Geopark in international tourism trade fairs for 2014.



**9 September – Workshop “Reuse the Old to become New”.** This workshop organized by Hugo Oliveira was prepared for 22 kids from primary school and kindergarten of Idanha-a-Nova. There, they recognized the importance of recycling as an important contribution for the equilibrium of the ecosystems of our planet, and to get human activities more sustainable. After identifying different materials that can be reused, pupils built their own toys and games. They made checkers, noughts and crosses, stilts and several toys and there was time for a lot of fun playing.



**10-13 September – International Appalachian Trail delegate Earl Raymond inspects Naturtejo Geopark.** Responsible from the Maine chapter in USA Earl Raymond came to visit the project to introduce the International Appalachian Trail in Portugal, on the way to the IAT Annual Meeting in Scotland. Together with Carlos Neto de Carvalho he visited parts of the Moradal Mountain, from Picoto do Moradal to Cabeço Mosqueiro, where Moradal-Pangea Trail will be implemented starting in October. They also had a meeting with the vice-mayor Vitor Antunes to clarify the importance of this project for the sustainable development of Oleiros. Besides, Carlos guided Earl Raymond in Idanha-a-Nova to visit the Cultural Centre, Idanha-a-Velha Roman city and Monsanto' Boulders Trail. At Proença-a-Nova they visited the Living Science Centre dedicated to forest and the new excavations to a Pre-historic tomb under the frame of the archeological summer camp. Finally they joined the group of participating students, municipal technicians and archaeologists in the traditional village of Figueira to enjoy the evening.





**18 September - Naturtejo Geopark presented to the Tourism Course in Brazil.** Joana Rodrigues presented the concept of Geopark, the European and Global Geoparks networks under the auspices of UNESCO to the students of the Tourism Course of FUNLEC, in Campo Grande (Brazil). The Naturtejo Geopark strategy was presented as well as its practices of Geoconservation, Education and Tourism. Afrânio Soriano, the Scientific Coordinator of Bodoquena-Pantanal, the challenges for the present and projects under development.



**24-28 September - Sharing the experience of the Portuguese Geoparks Forum in the II Brazilian Symposium on Geological Heritage.** The city of Ouro Preto (Minas Gerais, Brazil) held the II Brazilian Symposium on Geological Heritage. During the round table dedicated to Brazilian Experiences in Geoparks and the session Geoparks from Brazil about 10 projects of geoparks in different stages of development were presented. In the round table "Brazilian Network and Forum of Geoparks and Brazilian Association of Aspiring Geoparks" it was discussed the development of a Brazilian Forum of Geoparks, together with the National UNESCO Commission, or as alternative a National Network or an Association of Brazilian Geoparks. During this debate Joana Rodrigues contributed by sharing the Portuguese experience of the Portuguese Forum of Geoparks and the role of fóruns in the European Geoparks Network.





**25-29 September – GEOschools meeting and Conference at Atenas.** The 4th GEOschools Meeting and the 3rd GEOschools Conference was held in Athens, by the Greek participants of the EU Comenius three-year project. Superbly organized by the representatives of the National and Kapodistrian University of Athens and the Committee of Geosciences Didactics of the Geological Society of Greece, both events succeeded to manage the last period of this project devoted to define Principles for Scientific Literacy on Geosciences for the EU citizens. EU representatives were invited to be present both during meeting and the conference. The 3rd GEOschools Conference was held in the Old University of Athens, so close to the Acropolis, with the support of the project partner institutions, including Naturtejo Global Geopark. Carlos Neto de Carvalho was also part of the Scientific Committee. More than 50 Greek teachers participated in this international conference that included also papers from Austria, Czech Republic, Italy, Spain and Portugal. Carlos Neto de Carvalho gave a short talk on the Teaching Module – Geoparks and Geosites coordinated by the Naturtejo Geopark partner. “Teaching Geosciences in Europe from Primary to Secondary School” was the main subject discussed including several didactic workshops and a very appreciated cultural evening. The field trip to Aegina Island with the support of Aegina municipality was great to introduce to teachers simple practical exercises to teach geosciences in the local context. A one-day fieldtrip accessible to all the schools from Athens, the Aegina schools, and any school from Europe wishing to learn about geosciences and Greek History in the same excursion.

**27-28 August – Baja TT Idanha-a-Nova.** Baja TT Idanha-a-Nova was part of the rally national championship that took place in the wide landscapes of Idanha-a-Nova. Speed and emotion were guaranteed for the hundreds of people that went to the dirty tracks to see the cars and the famous drivers passing by.

**27-28 September– IV Typography Meeting in Idanha-a-Nova .** The IV Typography Meeting was organized by the Technical Scientific Unit of Design, Audiovisuals and Production of Media in association with the Research Center of Music, Arts and Design of the School of Applied Arts from the Polytechnic Institute of Castelo Branco. Always finding bridges to work together with local institutions Naturtejo supported this important event. Under the general subject “From the register to the written”, the Typography Meeting has as the main aim to be a spot for divulgation, reflection and discussion on research and printing development at a national and international level. Researchers, professionals, professor and students with projects dedicated to typography met in Raiano Cultural Centre and in the Cathedral of Idanha-a-Velha, the capital of Roman epigraphy in Portugal and shared experiences resulting from the daily work at the office, and research in academic context, in a way to foster new knowledge and projects. Workshops on Digital Printing, Calligraphy, the opening of a new exhibition at the Cultural Centre devoted to new projects in Typography, tasting of local cuisine and products and guided field trips to the historical village of Monsanto and to the Ichnological Park of Penha Garcia attracted 70 delegates to this meeting.

**28 September- Historical villages with CP national train company.** CP national train company developed a tourism package devoted to tradition, history, geology and gstronomy of the Geopark. 49 people came by train and visited the historical villages of Idanha-a-Velha and Monsanto, and made the Fossils Trail in Penha Garcia finishing the tour with some local flavors.

# IMPACT OF GEOPARK IN MEDIA



## Newspapers & www

September/October (Quercus Ambiente) – Save the Earth 2013 – Music Ecofestival for CERAS

10 September (Povo da Beira) – Segura as interpretative center for biodiversity

19 September (Reconquista) – Barrocal as geomonument

19 September (Reconquista) – Sail against indifference

24 September (Povo da Beira) – ESART organizes the IV Meeting of Typography



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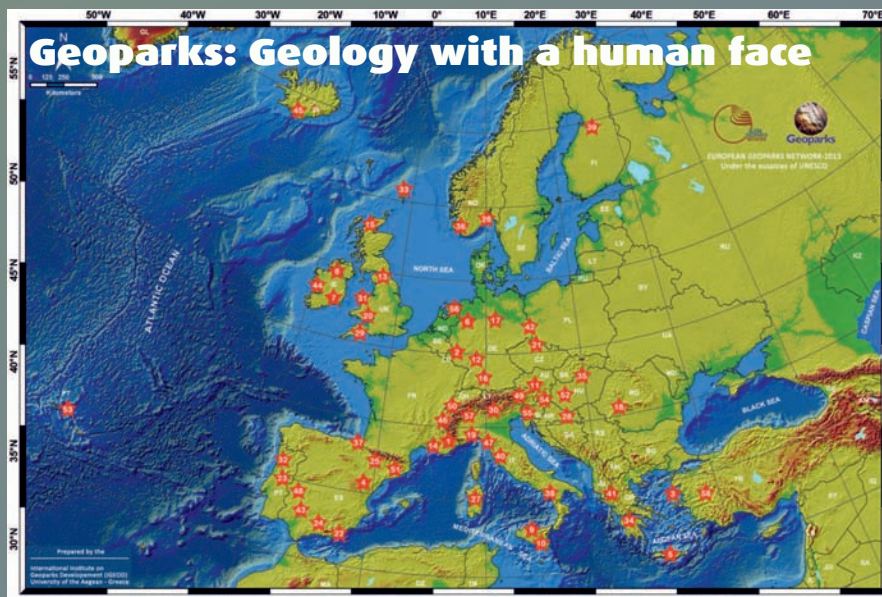
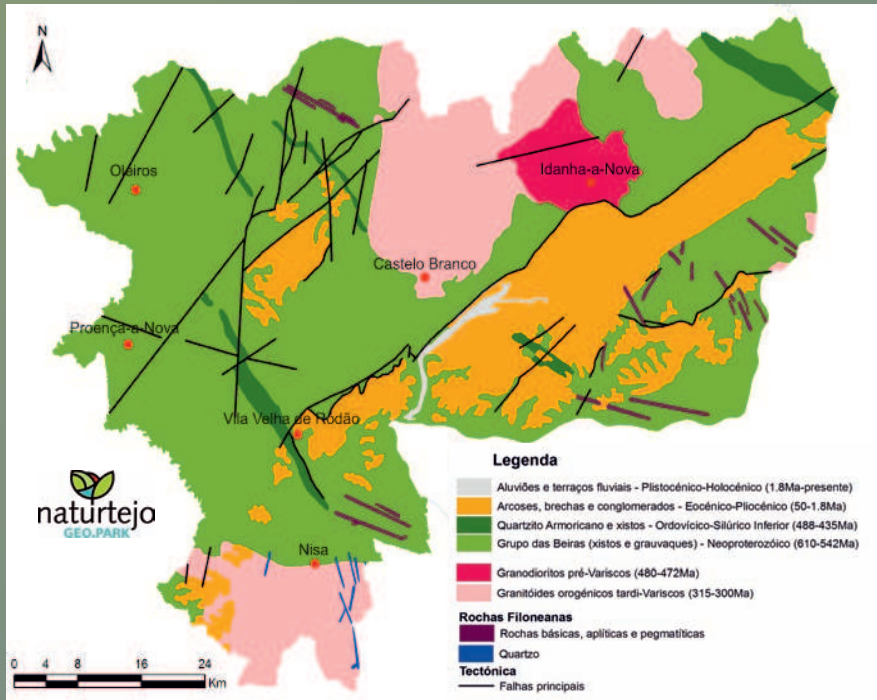


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