





The 8-th Conference of the African Association of Women in Geosciences



Preamble







The African Association of Women in Geosciences – AAWG is supporting the development of Earth Scientists in Africa by providing opportunities for networking and promoting the application of geosciences for sustainable development. To meet these challenges, AAWG is organizing numerous activities in and out of the African continent. Biennial International Conferences are being organized to address various challenges that the African continent is facing and to which Earth Sciences could make a contribution.

Preamble







In order to strengthen the collaboration between our African and non African members and also to increase the visibility of the Association, the 8th AAWG Conference is being organized for the first time out of the African continent. To meet these objectives, the 8th conference is entitled *Building bridges between Earth Scientists Worldwide: A Way for Promoting Peace and Strengthening Integration*

Venue



Organizer

The African Association of Women in Geosciences – AAWG

Partners

Geological Society of Romania - SGR

National Institute of Marine Geology and Geoecology – GeoEcoMar

Faculty of Geology and Geophysics, University of Bucharest – FGG-UB

Bucharest Student Chapter – BSC

Astra National Museum Complex, Sibiu – ASTRA

Brukenthal National Museum, Sibiu

African Geoparks Network – AGN

Equipe de Géodynamique, Géo-éducation et Patrimoine Géologique

(Faculty of Sciences, El Jadida, Morocco)

International Association for Promoting Geoethics – IAPG

Arab Geosciences Union – ArabGU

Organizing committee

President **Ezzoura Errami**, Université Chouaïb Doukkali, El Jadida, Morocco Vicepresident **Antoneta Seghedi**, GeoEcoMar and Geological Society of Romania, Bucharest, Romania **Members**

Aisha Ahmed, Raw Materials Research and Development Council, Abuja, Nigeria
Yamina Bourgeoini, FST, Université Cadi Ayyad de Marrakech, Morocco
Rodica Ciobanu, National Museum Brukenthal, Sibiu, Romania
Geanina Ionescu, Astra Center for Heritage, Sibiu, Romania
Denisa Jianu, Faculty of Geology and Geophysics, University of Bucharest, Romania
Cecilia Mukosi, Council for Geosciences, South Africa
Valentin Paraschiv, Geological Institute of Romania, and Geological Society of Romania, Bucharest, Romania
Sophie Siby, Université Cheikh Anta Diop de Dakar, Sénégal
Juliette Tea, Petroci - Holding, Abidjan, Côte d'Ivoire

Field trip

Alexandru Andrăşanu, Faculty of Geology and Geophysics, University of Bucharest Tudor Berza, Geological Institute of Romania, Bucharest, Romania Iulia Lazăr, Faculty of Geology and Geophysics, University of Bucharest Mihaela Melinte, Geoecomar, Bucharest, Romania Viorica Milu, Geological Institute of Romania, Bucharest, Romania

Secretariat

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International Scientific committee

Ezzoura Errami, Université Chouaïb Doukkali, El Jadida, Morocco Lala Andrianaivo, ESPA, Petroleum Engineering Department, Antananarivo, Madagascar Abderrahmane Bendaoud, LGGIP/FSTGAT/USTHB, Algiers, Algeria Metasebia Demissie, AAWG, Ethiopia Béatrice Ketchemen, Université de Douala, Cameroon Kmar Ben Ismail-Lattrache, University of Tunis El Manar, Tunisia Gheorghe Ilinca, Faculty of Geology and Geophysics, University of Bucharest, Romania Hülya Inaner, Dokuz Eylül University, İzmir, Turkey Corina Ionescu, Babeş-Bolyai University Cluj-Napoca, Romania Mihaela Melinte, GeoEcoMar Bucharest, Romania Anna Nguro, Geological Survey of Namibia, Windhoek, Namibia Victory Nfoumou Obame, AAWG, Gabon Gheorghe Oaie, GeoEcoMar Bucharest, Romania Rosemary Okla, Geological Survey of Ghana Silvia Peppoloni, IAPG and Istituto Nazionale di Geofisica e Volcanologia, Italy Mihai Popa, Faculty of Geology and Geophysics, University of Bucharest Hasina Nirina Randrianaly, Université d'Antananarivo, Faculté des Sciences, Antananarivo, Madagascar Jean Paul Saint Martin, Museum National d'Histoire Naturelle, Paris, France Gabi Schneider, Geological Survey of Namibia, Windhoek, Namibia Dan Secrieru, GeoEcoMar Constanța, Romania Antoneta Seghedi, GeoEcoMar Bucharest, Romania Randell Stephenson, University of Aberdeen, UK

Pauline Yawoa Dacosta, AGN, Togo

MAIN TOPICS

Earth Science and its applications
Earth Science and Local Communities
Environment/Natural Hazards/ Medical Geology
Geoheritage, Geotourism & Geoparks
Women and Earth Sciences
Geo-Mining
Geo-Education
Geo-Ethics

Plenary lectures

Building bridges between Earth Scientists Worldwide: A Way for Promoting Peace and Strengthening Integration

Prof. Dr. Ezzoura Errami, Chouaïb Doukkali University, El Jadida, Morocco

La micropaléontologie au féminin: une vie de recherche Dr. Simona Saint Martin, Museum National d'Histoire Naturelle, Paris, France

Women, Climate Change and Development in Africa: The Case of Kenya Monica Omulo, School of Environment & Earth Sciences, Maseno University, Kenya

Geoethics: a new perspective for geosciences
Silvia Peppoloni, IAPG and Istituto Nazionale di Geofisica e Volcanologia, Italy

Provisional program

Day 1 – Workshop coordinated by Alexandru Andrăşanu

Interpretation of geological heritage. Case study: the Haţeg Country Dinosaur Geopark
Choices on geological heritage, principles of interpretation and way of communication; visual
identity and infrastructure for interpretation: thematic trails, exhibitions, museums,
promotional materials

Days 2-4 – Scientific sessions

Days 5-7 – Field trip in the Apuseni Mountains and South Carpathians

Day 5 – Apuseni Mountains – Mureş zone ophiolites, Neogene volcanism and related mineralization, Miocene salt in Transylvania

Leader Viorica Milu

Day 6 – South Carpathians – Haţeg Basin – geology, geoheritage, geoeducation

Leaders Alexandru Andrăşanu, Tudor Berza, Mihaela Melinte

Day 7 – South Carpathians – geology of the Rucăr-Bran passage

Leader Julia Lazăr

Abstracts

All authors are requested to submit their abstracts which will be printed in an Abstract Volume and distributed to the participants. All abstracts should be prepared according to the guidelines given in the first circular, posted on the AAWG website, http://www.aawg.org/

Language

Language of the Conference is English and French.

Registration fee

270 euro – Corporate participants 120 euro – African non-AAWG members 100 euro – AAWG members and students

The registration fees include the travel fees from Bucharest airport to Sibiu and from Sibiu to Bucharest airport, the abstract volume, coffee breaks, conference lunches and costs of social program. There are partial sponsorship possibilities for AAWG members who will present papers during the conference.

Gala Dinner – 25 euro

Field trip fee 300 euro

The field trip fee includes the field guide book, transportation, meals and accommodation during the trip.

Participants are asked to communicate meal preferences

Bank account

CAAWG 8 banking details:

Societatea Geologică a României

Str. Caransebeş nr. 1, sector 1, Bucureşti, România

Tax code: 14618797

Bank name: Banca Comercială Română, sucursala UNIC

Bank address: Bd. Regina Elisabeta nr. 5, Sector 3, Bucureşti

Postal code 030016

SWIFT CODE: RNCROBU

Accounts: RO60 RNCB 0285 0084 2061 0001 (RON)

RO33 RNCB 0285 0084 2061 0002 (EURO) RO06 RNCB 0285 0084 2061 0003 (USD)

Please supply name as reference, and email the proof of payment to CAAWG8

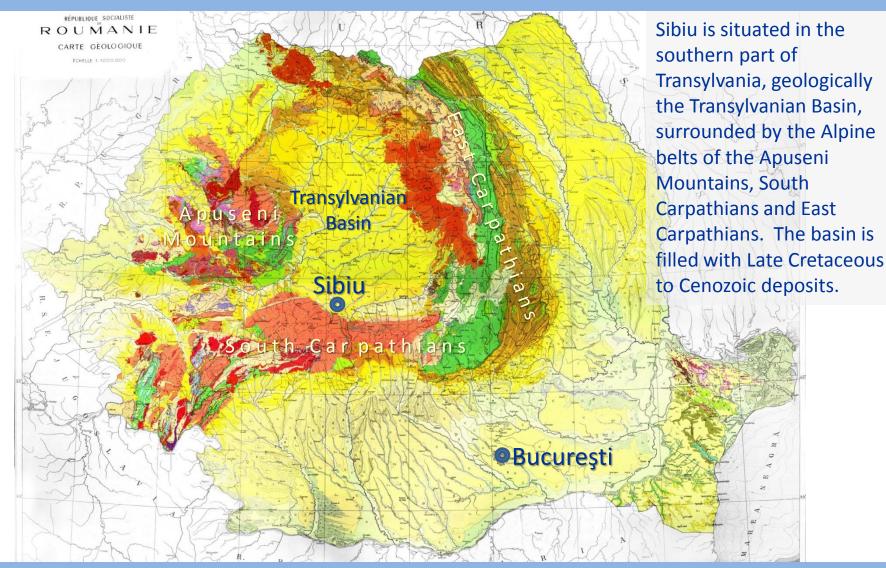
DEADLINES

June 2015 – First Circular

April 2016 – Conference & Field trip Registration & Abstracts submission

June 2016 – Second circular

September 2016 – Conference program



Geological map of Romania (Săndulescu et al., 1978)

Transylvania



A region with scenic landscapes of mild hills covered by crops, pasture lands and vineyards and surrounded by high mountains, Transylvania has unique scenery, traditional villages and occupations. Southern Transylvania is famous for its 18th century Saxon villages with fortified churches. The region is commonly associated with vampires, due to the famous novel of Bram Stoker.





Sibiu International Airport



Sibiu international airport is situated 6 km west from downtown Sibiu. Direct flights are from London, Vienna, Münich, Stuttgart, Madrid, Antalya, Bucharest and Timişoara. Romania's national carrier, **TAROM**, as well as **LUFTHANSA**, fly five times a week from Sibiu to Münich and Vienna. Blue Air offers direct low cost flights to Köln, Stuttgart and Madrid. **Carpatair**, the largest airline of Transylvania, offers daily connections to Münich, Bergamo and Treviso, and three times a week to Bologna, Verona, Rome and Stuttgart. For more details please consult the following websites: www.sibiuairport.ro, www.carpatair.com/ www.twitter.com/carpatair, www.blueairweb.com/ Bus connexions and taxis can be found at the exit from the airport.

Participants flying to Bucharest will be waited for in the airport and transported to Sibiu by coach or minibus.

Flights to Sibiu International Airport Londra Dortmund Stuttgart Munchen Sibiu Antalya Legend Austrian Airlines Lufthansa Wizz Air Air Bucharest Blue Air **Tarom**

Transport to Sibiu

By Road

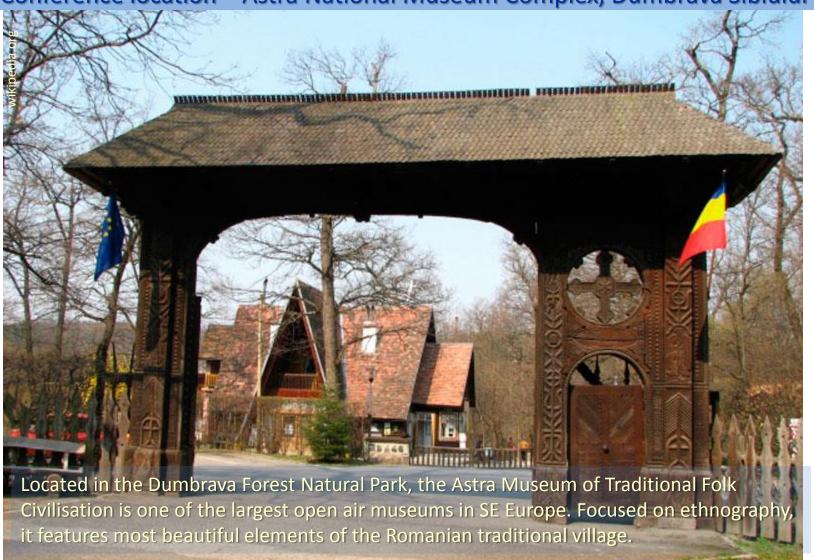
Sibiu is an important node in the European road network, being situated on two different European routes: E68 (Arad – Sibiu – Braşov) with entry pointat at Nădlac and E81 (Cluj – Sibiu – Piteşti – Bucureşti), with entry point at Borş. Sibiu is located on three different main national roads, DN1, DN7 and DN14.

The Romanian Motorway A1, partly under construction, links Sibiu with Piteşti and Bucharest, as well as with the western border of Romania. The ring road of Sibiu is part of Motorway A1. Sibiu is also an important hub for the international bus links with the largest passenger transporter in Romania, Atlassib, based here. Transport companies are also providing coach connections from Sibiu to a large number of locations in Romania.

By Rail

Sibiu is situated on the CFR – Romanian Railways Main Line 200 (Brasov - Făgăraş - Sibiu - Simeria - Arad - Romanian Western Border) and on Line 206 (Sibiu - Mediaş). Sibiu is served by three rail stations: the Main Station, the Little Station (*Gara Mică*) and Sibiu Turnişor. It has an important diesel-powered locomotives depot and a freight terminal. Numerous Inter City trains (known as Blue Arrows) connect Sibiu to other major cities in Romania: Cluj-Napoca, Brasov, Craiova, Timișoara and Bucharest.

Conference location – Astra National Museum Complex, Dumbrava Sibiului



Logistics

The Astra National Museum Complex has three venues for conferences, endowed with state of the art equipment:

- One conference room in the House of Arts (Casa artelor), located in the Lesser Square (Piaţa Mică), in the very heart of the historic center (80 seats)
- Two conference rooms located within the precincts of the open air museum
 - the central pavilion, 60 seats
 - Villa Diana, 120 seats





There is a large choice of hostels, guesthouses, apartments and hotels in Sibiu.

For reservations and more details please check the following links:

www.booking.com

http://www.sibiuturist.ro/accommodation.html

http://www.travelro.ro/hoteluri-sibiu.html

A list of preferred choices in the downtown Sibiu is given below.



Hostels

Felinarul Hostel, http://www.felinarulhostelsibiu.ro/

Old Town Hostel, http://www.hostelsibiu.ro/ro/

Smart Hostel, http://smart-hostel.ro/

Hostel PanGeea, http://sibiuhostel.ro/

Welt Hostel, http://www.weltkultur.ro/

Hostel Centrum, https://www.facebook.com/Centrum-Hostel-283434705153532/



Guesthouses

Pension Santa Maria, Str. Livezii nr. 43, from €30
Pensiunea Cardinal, str. Justiţiei 9, €33-41
Pensiunea Podul Minciunilor, str. Azilului 1, €25 double, €20 single
Pensiunea Casa Sibianului, str. 9 Mai 37, double and twin €25, single € 20, triple € 35, quadruple € 46

Pensiunea Cocoşul Roşu, str. Ocnei 19, €36 double, €40 triple Pensiunea Hermannstadt, str. Blănarilor 13, double 34, single 27





Guesthouses and hotels

Casa Romană, General Magheru 40, €27 double or twin

Casa Rothenberg, Piaţa Mare 11, €33

Casa Bieltz, str. N. Bălcescu 19, triple €32, duble €35, apartment €37

Casa Frieda, str. N. Bălcescu 40, €40 duble, €37 single

Casa Veche, str. Liviu Rebreanu nr 4

Casa Weidner, Piaţa Mare 16, €45 double

Casa Salzburg, str. Cetății 46, €44-52 double







Hotels

Ibis Centru Sibiu Hermannstadt, from €25-30 Hotel Parc Sibiu, str. Scoala de înot 1-3, from €32 Hotel Casa Luxemburg, Piaţa Mică 16, €39-56 Hotel Continental Forum, str. Unirii 10, from €37 Hotel Am Ring, Piaţa Mare 14, €45-63 Huet Residence, Piaţa Huet 3 from €48 Hotel Apollo, Nicolae Teclu 14, from €56







Weather

Climate in Sibiu is humid continental, with warm summers and no dry season.

The month of October is characterized by *rapidly falling* daily high temperatures, with daily highs decreasing from 19°C to 12°C over the course of the month, exceeding 24°C or dropping below 5°Conly one day in ten. Normal high temperatures for October in Sibiu area are around 16°C, with an average temperature around 9°C and an average minimum around 3-4°C.

The weather can be sunny and warm, except the cooler mornings and evenings. Rain is also possible.

Contact

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Social program Day 1 – medieval Sibiu



Former capital of the Principality of Transylvania in the 17th, 18th and 19th centuries, Sibiu is now the capital of Sibiu county.

Sibiu is one of the most beautiful medieval settlements in Romania. With a vibrant cultural life, it was European Capital of Culture in 2007.

Social program Day 1 – medieval Sibiu



With a first official record in 1191 as Cibinum and known since 1366 as Hermannstadt, Sibiu was an important trade centre in 14th century, with craftsmen divided in 16 guilds. Now the city is inhabited by Romanian, Hungarian, German and Roma ethnic communities.

Sibiu has a lower and an upper town, preserved in the historical center concentrated around three landmarks: the Grand Square, the Lesser Square and the Huet Square.

Social program Day 1 – medieval Sibiu



One of the trademarks of Sibiu are the famous **city eyes**. They represent baroque style ventilation systems of the roofs, dating only from the 19th century.



Sibiu – the Fortress Wall and the Passage of Stairs



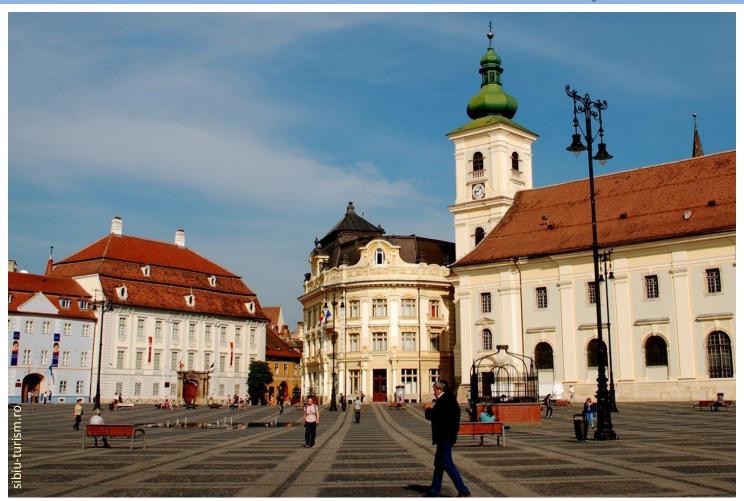
The 13th century city walls with three of the initial guild towers are still preserved along the **Fortress Street** (Strada Cetăţii).

Fortifications make Sibiu one of the most important fortified cities in Central Europe, with multiple rings of burnt clay bricks built around the city.



The famous **Passage of the Stairs** (arched wall), connecting the upper and lower towns, leads down to the lower section of Sibiu. It descends along some fortifications under the arches supporting it. This is the most picturesque of the several passages linking the two parts of the city.

Sibiu – the Grand Square



The Grand Square is surrounded by famous buildings of the patriciate. To the left, the Brukenthal Palace (1777-1787), one of the most important baroque monuments in Romania), was the first museum opened in Romania and Central Europe (1817).

In the middle there is the City Hall, followed to the right by the Roman-Catholic church.

On the south and east sides of the square there are two- or three-storey baroque houses dating from the 15th to 19th centuries.

Sibiu – the Lesser Square



There is a passage from the Grand Square to the Lesser Square through the 13th century Council Tower, one of the symbols of Sibiu. Houses surrounding the Lesser Square, with their arched passages, were built by merchants and craftsmen. The Luxembourg House in the lower left faces both the Lesser Square and Huet Square.

Sibiu – the Bridge of Lies





The **Bridge of Lies**, with the coat of arms of Sibiu on both sides, was the first cast iron bridge in Europe, built in 1859.

The road to the lower town goes under the Bridge of Lies from the Lesser Square, next to the Luxembourg house. To the right of the bridge there is another symbol of the city, the *House of the Arts*, a 14th century arched building formerly belonging to the Butchers' Guild. On the left side of the bridge there is a Baroque four-storey building, the *Luxembourg House*.

Sibiu – the Huet Square





The Huet Square is the place where the earliest fortifications have been built in the late 12th century or early 13th century. The buildings around this square are mainly Gothic. Surrounding the Evangelical Lutheran Cathedral, the Huet Market features some symbols of medieval times, like the parsonage (left) and the journeymen house (right). In front of the latter, the Journeymen Pillar was inaugurated in 2004.

Social program Day 2 – Cisnădie and Cisnădioara



Social program Day 2

Piatra Broaștei - Frog's Stone, Cisnădioara



Hippurites limestones at Piatra broaștei, Cisnădioara, represent a paleontological reserve of natural interest. The Neocretaceous carbonate platform limestones and conglomerates preserve remains of corals, fishes, gastropods, bivalve molluscs (Hippurites), oysters, belemnites, ammonites (Mantelliceras), sea urchins and starfish, while marine microfauna consists of foraminifera.

Social program Day 2



The town of Cisnădie originates in a medieval settlement of the 12th century. After the Saxon colonists have settled here in 1323, the guilds of blacksmiths and wool-weavers flourished.

The most important architectural site is the fortified complex. This represents a 12th century Romanesque basilica, fortified in the 15th century in order to protect the inhabitants against repeated Ottoman raids.

Social program Day 3 – Sibiel

The Museum of painted glass icons in Sibiel









Social program Day 3 – Sibiel

The Museum of painted glass icons in Sibiel



Social program Day 3 – Sibiel





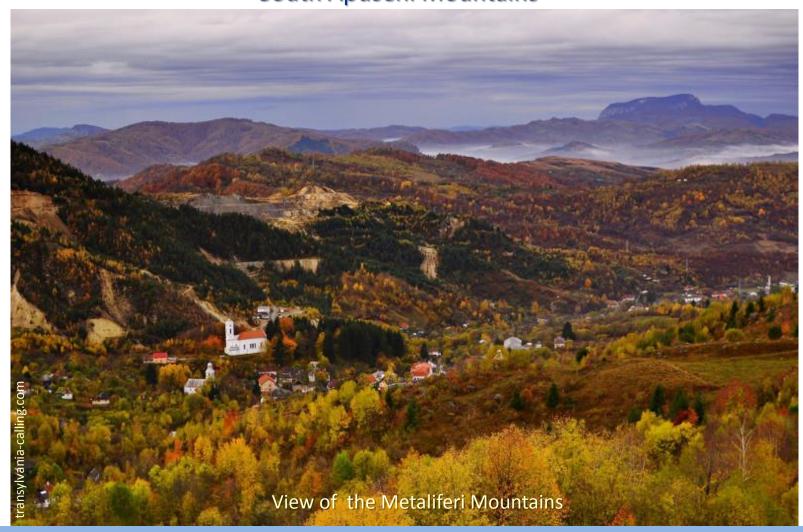




Post-conference Field trip routes RÉPUBLIQUE SOCIALISTE Day 1 ROUMANIE CARTE GEOLOGIQUE Day 2 ÉCHELLE 1-1000.000 Day 3 Alba lulia Târgovişte București

Geological map of Romania (Săndulescu et al., 1978)

South Apuseni Mountains



Mureş zone ophiolites, Neogene volcanism and mineralization, Miocene salt in Transylvania



The volcanic body in the Citadel Hill, Deva, is a Neogene (Sarmatian) neck consisting of amphibole – biotite andesites and associated contact breccia. A 13th century fortreess lies on top of the hill.



View of the Vulcan-Buceş pass, with late Jurassic carbonate platform limestones in the Vulcan hill.

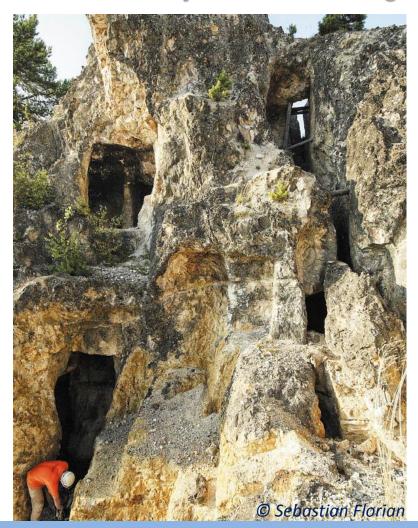
The Gold Museum in Brad

This is the largest museum in Europe featuring native gold samples of exceptional value. Famous exhibits include the ballerina, the lizard, the butterfly wings, etc.





Roşia Montana Mining Museum and Roman mines







Turda salt mine in the Transylvanian Basin



In Transylvania salt was exploited since Roman times, first through surface mining and subsequently in depth. The Turda Salt Mine features the history of salt exploitation in the area.

Salt precipitated in the middle Badenian-Wielician, in isolated marine basins of Transylvania, in conditions of warm and humid climate and active subsidence.

Field trip Day 1 - Overnight in Alba Iulia



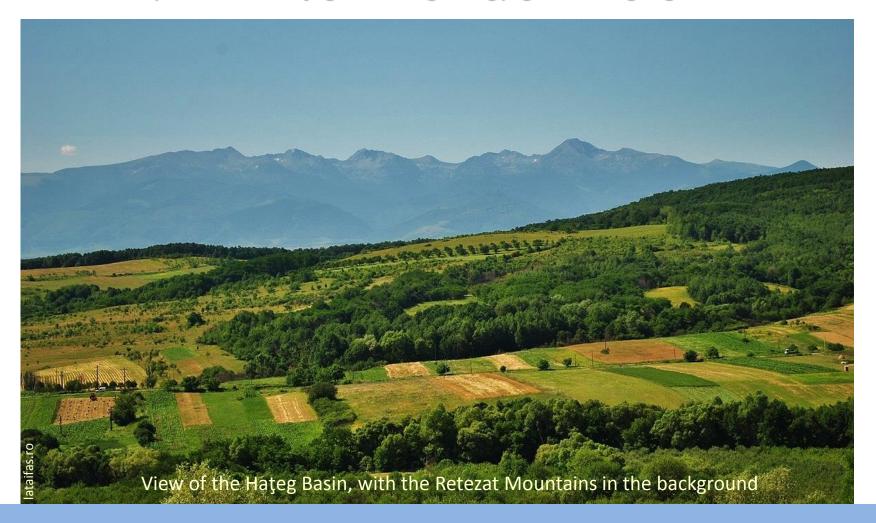
Entrance gate in the White Fortress Carolina, the symbol of Alba Iulia

Alba Iulia – Apulum in Roman times, is a city continuously inhabited since the Romans have conquered Dacia.

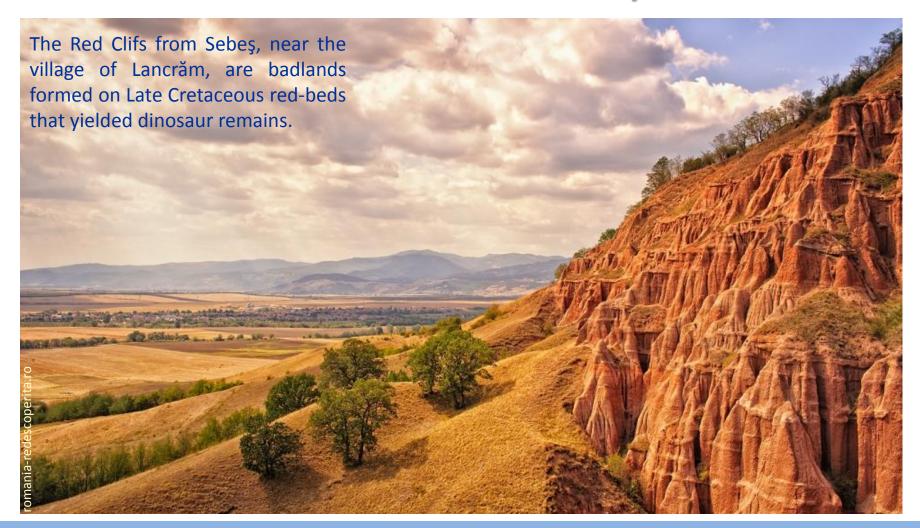
Alba Iulia is the sacred symbol of the unity of Romanians, as in 1600 the city became the first capital of the three Romanian countries (Moldavia, Transylvania and the Romanian Country), united for the first time by Mihai Viteazul.

The White Fortress Carolina was built between 1715-1738, when Transylvania was ruled by the Habsburgs. The fortress was emplaced on the ruins of the Roman fort of the 13th Legion Gemina.

South Carpathians – Haţeg Basin – geology, geoheritage, geoeducation

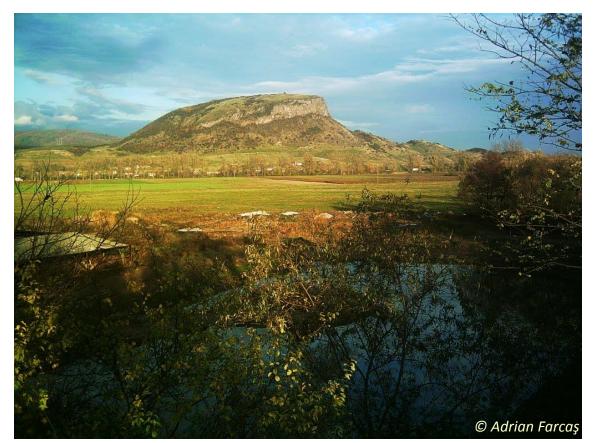


View of the Red Cliffs from Sebeş



Field trip – Second day

The Uroi hill, near Simeria town





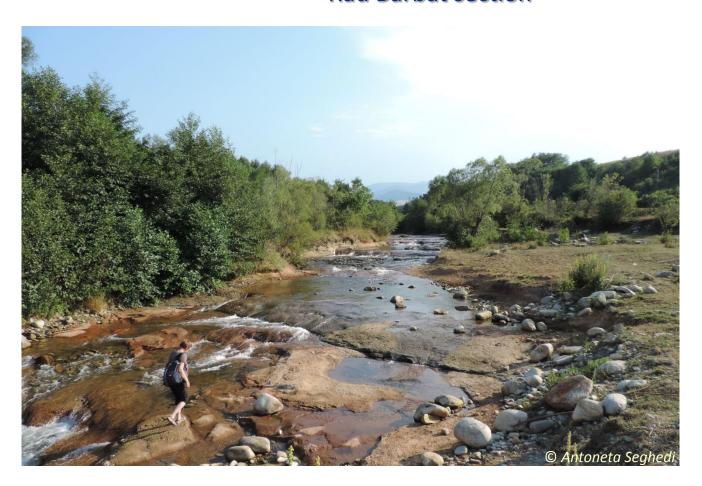
Fluoro-magnesiohastingsite from Uroi Hill



Pseudobrookite from Uroi Hill

A volcanic dome of Pleistocene alkaline trachyandesites, Măgura Uroiului Hill is a nature reserve, being the type locality for 3 minerals: pseudobrookite, magnesio-fluoro-hastingsite and "szabóite" (a discredited hypersthene variety).

Haţeg Basin – metamorphic basement and Cretaceous deposits in the Râu Bărbat section



Late Cretaceous red-beds with dinosaur remains form the bedrock of the Râu Bărbat valley floor.

Upper Cretaceous marine deposits in the Eastern part of the Haţeg Basin



Cenomanian beds with Actaeonella



Campanian infralittoral deposits

The Upper Cretaceous marine deposits occurring on the eastern margin of the Hateg Basin, include:

- Cenomanian deposits with rudists at Ohaba Ponor fossil site a paleontological natural reserve within the Grădiştea Muncelului-Cioclovina Natural Park;
- Campanian-Lower Maastrichtian infralittoral deposits in the Ponor village;
- Lower Cretaceous sediments in Urgonian facies and overlaying Albian bauxite deposits.

The Dinosaur Valley, Haţeg Country Dinosaur Geopark

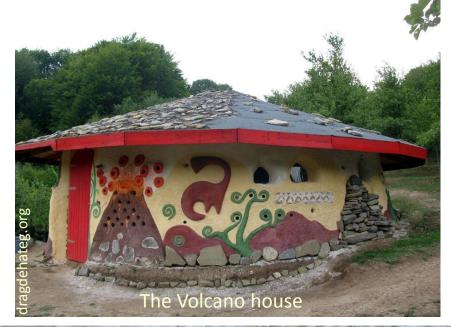


In this exposure of
Maastrichtian continental
deposits (sandstones and
conglomerates), the
remains of several dwarf
dinosaurs (Magyarosaurus,
Zalmoxes), primitive turtles
(Kallokibotion) and crocodiles
(Allodaposuchus) were found.
The outcrop is a stop along
the Dinosaur Valley, a trail in
the Hateg Country Dinosaur
Geopark.

Field trip Day 2 – Densuş

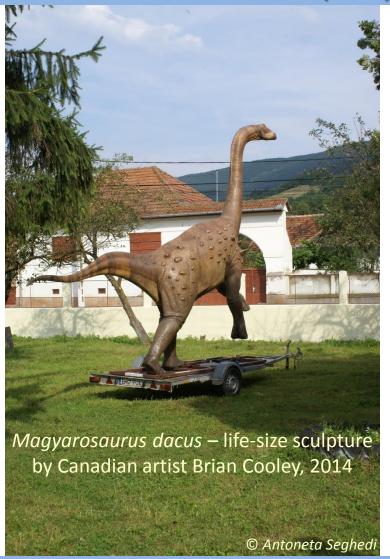








Field trip Day 2 – General Berthelot

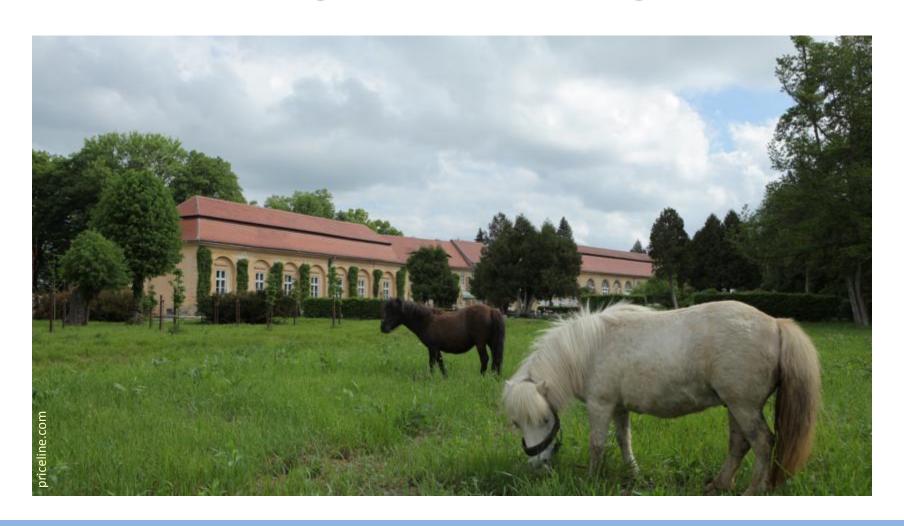


Interpretation of geological heritage — life-size reconstructions of dwarf dinosaurs and temporary exhibitions at the Center of Science and Art of the Haţeg Country Dinosaur Geopark

Egg clutch of Hadrosaurid dinosaur *Telmatosaurus*



Overnight at Brukenthal Palace, Avrig



The Rucăr-Bran passage



South Carpathians - The Rucăr-Bran passage





The Rucăr-Bran passage or Bran Gorges is one of the most important trans-Carpathian passages, a natural amphitheatre between the Bucegi and Piatra Craiului Mountains.

The Bran Castle



Built in 1377 on the order of King Louis I d'Anjou, who reigned over the Magyar kingdom, the Bran castle was one of the fortresses in a chain of defence alongside the southern border of Transylvania. The purpose of Bran Fortress was to intercept the road that leads to Transylvania, including the gorge, and to ensure the protection of the Magyar customs centre.

Despite common belief, the castle has little to do with Vlad the Impaler (son of Vlad Dracul) or Dracula.

The Rucăr-Bran passage





Dâmbovicioara gorges and cave, cut in Late Jurassic-Neocomian carbonate platform limestones of Piatra Craiului Massif

Rucăr-Bran passage





Intra-Valanginian discontinuity within the Upper Jurassic –Lower Cretaceous sequences, a good example of inherited rock-ground (IRG).

The top of the shallow-water carbonate platform, clearly cut by the IRG discontinuity.

Royal Court at Târgovişte



Secondary royal court of the Romanian Country since the 14th century and main court during the 15-17th centuries, Targoviste is the place where Vlad Dracul and his son Vlad Dracula (Vlad the Impaler, who ruled in the second half of the 15th century), took important political decisions and also died in battle.

Field trip Day 3 – Overnight in Bucharest

Buildings in Neoromanian style in Bucharest



Casa Doina – Doina House, by famous architect Ion Mincu, built in 1892, is a famous restaurant in Bucharest.

