



GEO-CULTURAL TRIP TO ROME AND NAPLES 2019

and

1st International Field Course

"Teaching of Earth Sciences through contextualized and interdisciplinary perspectives"

A different perspective, an exciting journey, an enriching experience...

What is it about?

A fascinating two-week expedition through **Nature**, its processes and materials and **Humanity**, its facts and creations, providing an experience of study and discovery of the multiple and complex relationships between them.

When?

The trip will take place between Sunday, May 19 and Monday, June 3 (to be confirmed).

Why should one be interested?

There are many reasons making this trip interesting and novel so that both the general public and specialists from the worlds of art, science or education will find it motivating.

1. The general public: The trip provides a journey through landscapes, cities and museums where the relations between different aspects of human activity crystallized in the Humanities and Sciences will be highlighted, not as antagonistic entities but as complementary aspects of the development of human knowledge. We visit two Italian regions to travel in space and time across areas that have left a strong imprint in both fields and where the natural environment has provided an exceptional background. We will experience the general culture of each one and travel through an adventure of civilization.

2. Architects, artists and art historians: Have opportunities for a specialized look at the materials, their origins, characteristics and properties. Under the name of "marbles and granites" are hidden rocks of diverse compositions and provenances (both geographical and, above all, geological) associated with processes and histories that, over millions of years, have been shaping the material that was extracted from the quarries. The expert perspective can see through the textures, colors and structures to the features that give aesthetic value to them.

3. Scientists: Science is a product of the society in which it develops and is strongly conditioned by political and economic factors, but also by the environment, the needs of society and the ability to imagine and concretize new things. During the trip you will explore the geological-geographical environment, the Hellenic cultural heritage, local knowledge, etc. These combined and evolved, both around Vesuvius (a volcano that still dominates and affects life in the region), and in Rome, a city that became the capital of an empire, but also had to address important urban problems, including health, etc.



4. Educators: the trip offers a combination of SCIENCE + ART + HISTORY intimately related in a trip specially planned for professionals. For the participating teachers, the trip has been organized as a field school and constitutes the "1st International Field Course on Teaching Earth Sciences in a contextualized and interdisciplinary perspective", as described below.

Subjects that will be specially considered:

The topics that will be addressed during visits to natural spaces and museums include:

1. Humanities: History, Archeology, Architecture, Sculpture, Painting, Decorative Arts, Literature and Music.
2. Sciences: Earth Sciences, Geography, Chemistry, Physics, Engineering and Mathematics.

Proposal

This is an initiative of the J. J. Nágera Program, dedicated to the dissemination of Earth Sciences and the training of teachers. This program is part of the activities of the IGEBBA, Institute of Basic, Applied and Environmental Geosciences of Buenos Aires, which belongs to the University of Buenos Aires and the CONICET and is located in the Department of Geology of the Faculty of Sciences.



Content

The scientific-cultural aspects will be in charge of Dr. José Sellés-Martínez (geologist and educational researcher) and specialized local guides.

Logistics

The travel agency of the Young Men Christian Association of Argentina is in charge of the organization of the trip and the reservation and sale of the tickets.

Language

Communication will be in Spanish and English.

Sponsorship

The Argentine Scientific Society, the Argentine Academy of Arts and Communication Sciences and the Higher Professional Council of Geology officially sponsor the academic content but take no responsibility for the trip itself.



ACADEMIA ARGENTINA DE ARTES
Y CIENCIAS DE LA COMUNICACIÓN



CONSEJO SUPERIOR PROFESIONAL DE GEOLOGÍA





Travel agenda

- Day 1. Sunday, May 19th. Reception at the airport in Rome and transfer to Naples.
- Day 2. Underground Naples and National Archaeological Museum
- Day 3. Flagrant Fields
- Day 4. Torre Annunziata (Oplonti) and Herculaneum
- Day 5. Park Vergiliano to Piedigrotta and Pompeii
- Day 6. Mount Vesuvius
- Day 7. Capri
- Day 8. Naples - Rome. Arrival in Rome / Borghese Gallery
- Day 9. Area of the Coliseum-Forums-Palatino
- Day 10. Vatican City
- Day 11. Area of Termini-Archaeological Museum-Trastevere
- Day 12. Area of Pincio-Villa Giulia (Etruscan Museum) -Villa Medici.
- Day 13. Area of Tivoli- Canteras de Travertino-Villa Adriana-Villa d`Este
- Day 14. Papal Basilicas and Ancient Ostia
- Day 15. Sunday, June 2. Departure from Rome to your destinations

Cost

The trip begins and ends at the airport in Rome and does not include transfers to that point from the places of origin of the participants. The price based on the details below is:

Price per person in DOUBLE room, hotel 3 stars:	Eur 3,579.--
Price per person in INDIVIDUAL room, hotel 3 stars:	Eur 4,180.--

Included in the cost

- Help-Line Podium active 24/7, also by Skype and by Whatsapp with free calls
- Accompanying guide available for the entire trip
- 14 buffet breakfast
- 14 dinners menu 3 courses (starter-main course-dessert) - Does not include drinks
- Local bus services
- Visits with local guides
- Entrances to places: Underground Naples (with guide), National Archaeological Museum of Naples, Flagrant Fields, Oplontis, Herculaneum, Pompeii, Vesuvio Park, Blue Grotto, Borghese Gallery, Colosseum and Roman Forum,
- Entrance fees to museums: Capitoline Museums, Vatican Museums / Sistine Chapel / St. Peter's Basilica, Etruscan National Museum of Villa Giulia, Villa Medici, Villa Adriana, Villa d'Este, Archaeological Area of Ancient Ostia.
- Napoli / Capri fast boat, round trip

Not included in the cost

- Flights to and from Rome
- Tips and extras in general
- Lunches



- Drinks during dinners
- Additional excursions to those mentioned
- Additional entries to those mentioned
- Additional transfers to those mentioned.
- Hotel taxes

Tips

Tips should be offered. Suggested tips are: Guide: € 2-3 per person in each service and local Assistant: € 2 per person and service.

Insurance

It is essential to take out insurance to enter the European Community. The travel agency offers Universal Assistance Insurance with a daily fee of USD 4 that covers all the necessary requirements.

Additional information

- About logistics and reservations:

Mrs. Alejandra Horsmann, alejandra.horsmann@ymca-turismo.tur.ar

- About academic issues:

Sr. José Sellés-Martínez, aulagea@gl.fcen.uba.ar

- Additional information and updatings:

<http://igeba.gl.fcen.uba.ar/content/cursos>



1st International Field Course

Teaching of Earth Sciences in a contextualized and interdisciplinary perspective

Integrating SCIENCE, ART and HISTORY for IMPROVED EDUCATION

Organizing Institution: IGEBBA, Institute of Basic, Environmental and Applied Geosciences of Buenos Aires (University of Buenos Aires / National Council of Scientific and Technical Research)

Professor: Dr. José Sellés-Martínez (Department of Geology, Faculty of Sciences, University of Buenos Aires).

Certification: Certificates of participation will be awarded signed by the organizing institution and the professor, crediting a total of 68 hours (Theoretical: 39 hours, Practical: 20 hours, Workshops: 9 hours).

The Course is composed of:

1. The trip itself, which accumulates thirteen days of field work.
2. A portfolio of practical exercises that participants must address through a field perspective, based on information and instructions that will be sent long before the start of the trip.
3. The realization of on-site discussions (field, street or museum) on the use of motivational resources, interdisciplinary links and how to introduce them through the best educational practices.
4. A set of six workshops (90 'each) to be held every two days during the trip to discuss and summarize different aspects of the practical exercises and on-site discussions.

The contents of the course are based on the geology of the areas visited and the social, historical and artistic elements linked to geological materials, processes and phenomena.

Elements of the Humanities that will be especially considered:

Throughout its history the regions of Campania and Lazio have produced innumerable works of art that the trip proposes to address not only for their aesthetic value but also from a wide range of other perspectives (e.g. the sources and types of materials together with the socio-economic, scientific and technological issues of their times. Thus the lyrics, the music and the cinema will allow travelers to understand in advance the scenarios and the stories of both regions. Meanwhile, architecture, sculpture and decorative arts will also be addressed from the point of view of their constituent materials (composition, origin, implicit technologies).

Literature: Chronicle, literature and poetry from different eras and authors.

Music: Classical and popular from different eras and composers.

Cinema: Movies associated with the geographical places to be visited and their history.

Architecture: Geological materials for use in architecture, including: stony materials. gypsum, limes and cements, the brick. Different technologies and methods of building.

Sculpture: The stones used in sculpture, their characteristics and origins.

Painting: Mineral pigments, painting techniques.

Decorative Arts: Ceramic, porcelain and glass. The art of mosaic.

Scientific content that will be especially considered:

Aspects of the sciences in general that will be particularly addressed given the characteristics offered by natural phenomena as well as works produced by art and engineering that will be observed during the trip, include.



Physics: Changes of state. Influence of pressure and temperature on geological processes. Physical properties of materials (color, hardness, brightness, magnetism, electricity). The mechanics of deformation processes of geological materials (flow, folding and fracturing).

Chemistry: Mergers and solutions. Crystallization. Precipitation. Solution. Chemical aspects of rocks and inland and marine waters.

Mathematics: The importance of mathematical language (arithmetic and geometry) to quantitatively describe the observable phenomena and establish relationships between the different factors involved in them. The Roman numbers. Tessellations.

Geology: In addition to the description of the geology of the places that will be visited, integrating topics that will be taken into account, include:

- The water cycle: water in the atmosphere, surface water, groundwater, thermal water and fumaroles. Emphasis on water supply to urban areas in Roman times (catchment, transport, storage, sources and cisterns, domestic and industrial use, wastewater disposal).
- The rock cycle: rocks, sediments and magmas. Geological processes involved in their transformation. Emphasis on volcanic processes and products. Volcanic landscapes.
- Natural risks: volcanism, earthquakes, floods and sea level change.

Additional information

- About logistics and reservations:

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