



SOCIETY OF ECONOMIC GEOLOGISTS, INC.

7811 Shaffer Parkway • Littleton, CO 80127-3732 USA • Tel: +1.720.981.7882 • Fax: +1.720.981.7874 • E-mail: seg@segweb.org

Student Chapter Annual Report Cover Page

Submission Deadline: September 30th

Submit to: studentprograms@segweb.org

Month/Year Reported: From 10/2022 (mm/yyyy) – To 09/2023 (mm/yyyy)

STUDENT CHAPTER:

Check if update needed at segweb.org

Name: AUTH SEG Student Chapter

University Affiliation: Aristotle University of Thessaloniki

Mailing Address: Department of Mineralogy- Petrology- Economic Geology, Faculty of Geology, School of Sciences, Aristotle University of Thessaloniki GR-541 24, Thessaloniki, Greece

Dedicated E-mail: segweb@geo.auth.gr

Website: https://authsegen.wordpress.com/ Logo

https://authseg.files.wordpress.com/2020/09/seg_logo.jpg?w=768&h=768 Facebook

https://www.facebook.com/AUTH.SEGStudentChapter

Twitter: _____

Instagram: https://www.instagram.com/auth_seg/

LinkedIn: _____

YouTube: https://www.youtube.com/channel/UCUug7pNrc_VWHwUO2KBmkqA

Chapter Executive Committee (*in office during the time frame captured on this report*) (type "Vacant" if position not filled):
The new committee is reported on the Student Chapter Membership Information form (SCMIF).

President: Ioanna Alpi ioannalpi@geo.auth.gr
Name E-mail

VicePresident: Margarita Melfou melfoumv@geo.auth.gr
Name E-mail

Secretary: Elisavet Varvari evarvari@geo.auth.gr
Name E-mail

Treasurer: Anastasios Kyriakos axkyriak@geo.auth.gr
Name E-mail

Chapter Academic Sponsor: Check if SEG Fellowship in good standing

Vasilios Melfos melfosv@geo.auth.gr +30 2310 998539
Name E-mail Phone

Department of Mineralogy, Petrology and Economic Geology, School of Geology, Aristotle University of Thessaloniki, Greece
Address Fax

Chapter Industry Sponsor (*not affiliated with the student chapter's institution*): Check if SEG Fellowship in good standing

Thomas Sant tsant06@gmail.com +44 798 135 9811
Name E-mail Phone

14 Park Road, Timberley, Altrincham, Cheshire, UK
Address Fax

Sponsoring Institution or Company(name): Conico Ltd

ANNUAL REPORT 2022-2023
AUTH SEG STUDENT CHAPTER



Submitted by:

Ioanna Alpi, *President*

and

Elisavet Varvari, *Secretary*

September 2023



ARISTOTLE UNIVERSITY OF THESSALONIKI

ATh SEG STUDENT CHAPTER

ANNUAL REPORT FORM 2022-2023

GENERAL INFORMATION

YEAR REPORTED: 2022-2023

CHAPTER NAME: ATh SEG Student Chapter

STUDENT CHAPTER WEBSITE: <https://authseg.wordpress.com>

STUDENT CHAPTER E-MAIL ADDRESS: segweb@geo.auth.gr

STUDENT CHAPTER FACEBOOK PAGE:

<https://www.facebook.com/ATh.SEGStudentChapter>

STUDENT CHAPTER INSTAGRAM: https://www.instagram.com/auth_seg/

STUDENT CHAPTER YOUTUBE:

https://www.youtube.com/channel/UCUug7pNrc_VWHwUO2KBmkqA/feature d

STUDENT CHAPTER ACADEMIC SPONSOR: Dr. Vasilios Melfos,
Professor,

Department of Mineralogy, Petrology and Economic Geology, School of
Geology, Aristotle University of Thessaloniki, Greece

STUDENT CHAPTER SPONSOR: Dr. Thomas Sant, Exploration Manager,
Conico Ltd

Outgoing Executive Committee 2022-2023

| | Name | Title | E-mail address |
|---|-----------------------|--------------------|-----------------------|
| 1 | Ioanna Alpi | President | ioannalpi@geo.auth.gr |
| 2 | Margarita Melfou | Vice President | melfoumv@geo.auth.gr |
| 3 | Elisavet Varvari | Secretary | evarvari@geo.auth.gr |
| 4 | Anastasios Kyriakos | Treasurer | axkyriak@geo.auth.gr |
| 5 | Eftychia Peristeridou | Other Exec. Member | peristee@geo.auth.gr |

Newly Elected Executive Committee 2023-2024

| | Name | Title | E-mail address |
|---|----------------------|--------------------|----------------------|
| 1 | Anastasios Kyriakos | President | axkyriak@geo.auth.gr |
| 2 | Nikoleta Passali | Vice President | npassali@geo.auth.gr |
| 3 | Eftyxia Peristeridou | Secretary | peristee@geo.auth.gr |
| 4 | Eleni Intzevidou | Treasurer | intzevie@geo.auth.gr |
| 5 | Margarita Melfou | Other Exec. Member | melfoumv@geo.auth.gr |

The Student Chapter of the Society of Economic Geologists (SEG) of the Aristotle University of Thessaloniki (ATh) had 35 members at the end of the academic year 2022-2023. Seven of them are student members of the SEG.



Members of AUTH SEG Student Chapter

| | First Name | Academic Status |
|----|-----------------------------|------------------------|
| 1 | Ioanna Alpi* | Master's Student |
| 2 | Margarita Melfou* | PhD Candidate |
| 3 | Elisavet Varvari* | Master's Student |
| 4 | Anastasios Kyriakos* | Master's Student |
| 5 | Eftychia Peristeridou* | PhD Candidate |
| 6 | Christos Stergiou* | PostDoc Researcher |
| 7 | Aikaterini Katsoulari | Undergraduate Student |
| 8 | Aikaterini Tsiri | Undergraduate Student |
| 9 | Alexandra Kyrou | Undergraduate Student |
| 10 | Alexandros Mpampatzianis | Master's Student |
| 11 | Alexia Theocharaki | Master's Student |
| 12 | Anastasis Ladas | Master's Student |
| 13 | Anestis Politis | Undergraduate Student |
| 14 | Christina Mytiglaki | PhD Candidate |
| 15 | Chrysa Chrysakopoulou | PhD Candidate |
| 16 | Constantinos Christoforidis | Undergraduate Student |
| 17 | Despoina Diamanti | Undergraduate Student |
| 18 | Dimitra Perperi | Master's Student |
| 19 | Dimitrios Papadopoulos | Undergraduate Student |
| 20 | Eirini Karampa | Undergraduate Student |
| 21 | Eleni Intzevidou | Undergraduate Student |
| 22 | Eleni Pegioudi | Undergraduate Student |



| | | |
|----|--------------------------------------|-----------------------|
| 23 | Ioanna Kampanou | Undergraduate Student |
| 24 | Ismini Ermeidi | Undergraduate Student |
| 25 | Kalliopi Evgenia Dimitropoulou Elezi | Undergraduate Student |
| 26 | Katerina Selimollari | Undergraduate Student |
| 27 | Niki Mandraveli | Master's Student |
| 28 | Nikoleta Passali* | Undergraduate Student |
| 29 | Soultana-Kyriaki Kovaïou | PhD Candidate |
| 30 | Spyridon Strongylis | Master's Student |
| 31 | Stavros Sotiropoulos | Undergraduate Student |
| 32 | Symeon Koutsouridis | Undergraduate Student |
| 33 | Theodora Chatzakou | Undergraduate Student |
| 34 | Veroniki Tsoupersli | Undergraduate Student |
| 35 | Virginia Karagiannakou | Undergraduate Student |

*Full SEG member (2022/2023)

The AUTH SEG organized and took part in several events throughout the academic year 2022-2023. The following sections provide more details for each event.

Activities and Field Trips for the academic year 2022-2023

1. 1st Open Day of the Faculty of Sciences

On 5th of October 2022 the 1st “Open Day” of the Faculty of Sciences was held in the AUTH Campus, where research and student groups presented selective activities, in order to inform the academic community about their work and projects. The AUTH SEG Student Chapter participated at the event, presenting a variety of mineral and rock samples and informing the public about their various uses.

The event was successful, as numerous students and academic staff from the Department of Geology, and from other Departments of the Faculty of Sciences, were impressed by the samples and were informed about the activities of the AUTH SEG Student Chapter.



Figure 1. The minerals and rocks presented in the 1st “Open Day”.

2. Field trip to the ore deposits and the Troodos Geopark of Cyprus.

The AUTH SEG student chapter organized a field trip to the ore deposits and the Troodos Geopark of Cyprus, between 26th and 30th of October 2022. The field trip was financially supported by the SEG through the Round I 2022 of the Stewart R. Wallace Funding. The participants consisted of 2 Ph.D. Candidates, 7 Master’s, and 4 Undergraduate students, accompanied by the Chapter’s Academic Advisor, Professor Vasilios Melfos, joined by Assistant Professor Grigorios-Aarne Sakellaris.

The field trip started on Thursday, October 27, 2022 with a visit to some very well-known VMS deposits, more precisely the Agrokipia, Kokkinopezoula-Mitsero, Kokkinoyia and Alestos VMS deposits, where Dr. N. Adamides and Mr. D. Vattis introduced us to the geology of the area and the history of these mines. We also visited the Skouriotissa VMS deposits where Mr. K. Xydias, Director of Hellenic Minerals, gave us a brief presentation about the mines, and focused on the formation

of the ore bodies, before providing us with the required safety gear (Fig. 2c). The last stop of the day was at the Apliki VMS deposit, one of the most representative examples of Cu-bearing massive sulfides deposits globally. Mr. G Kalogeropoulos, Quarries Director of Hellenic Copper Mines, accompanied by Dr. N. Adamides, talked about the geology and the exploitation of this deposit (Fig. 2d)



Figure 2. a. The “Agrokippia” VMS deposit and the members of the AUPh SEG student chapter, b. The members at the Kokkinopezoula Vms deposit, c. The students with the staff of the company “Hellenic Minerals” at the Skouriotissa mine, d. Dr. N. Adamides explaining to the students the geological characteristics of the Apliki.

In the second day of the field trip we visited the Troodos Global Geopark Visitor Centre where Mrs. Constantina Theofylaktou, the geological officer of the Geopark, presented the spectacular Troodos ophiolite sequence and the related geology of Cyprus (Fig. 3a).



Figure 3. a. Mrs. Constantina Theofylaktou, the geological officer of the Geopark, presenting the spectacular Troodos ophiolite sequence, b. The members of the chapter at the entrance of the visitor center.

The same day we visited the abandoned Amiantos mine, where Dr. Ernestos Sarris, Associate Professor at the Department of Engineering at the University of Nicosia, guided us through the old facilities and talked about the history of the mine (Fig. 4). The Amiantos mine is of an opencast type, where chrysotile asbestos has been exploited from 1904 until 1988. Chrysotile is the most common type of asbestos and resulted from the serpentinization of the Troodos ultramafic rocks.



Figure 4. Associate Professor Ernestos Sarris discussing with the students about the history of the mine and the formation processes of asbestos.

On the last day of the field trip we visited different geosites of the Troodos Geopark, with the help of an experienced geologist, Mrs Eleuthera Eleutheriou, including the pillow lavas of Maroullena river, the Memi VMS deposit, a sheeted dyke complex, Lagoudera Plagiogranite and the cumulative rocks of the ophiolite sequence. The first and very interesting stop was at the Maroullena River, where there is a spectacular exposure of the Lower and the Upper pillow lavas of the Troodos ophiolite sequence, cut by vertical dykes. There we had the opportunity to find samples of greenish celadonite and observe chalcedony veins. Afterwards, we visited the Memi VMS deposit and collected beautiful samples of pyrite (Fig. 5b).



Figure 5. a. The students examining the Lower pillow lavas with greenish celadonite and chalcedony veins, b. The students looking for pyrite samples at the massive sulfide deposit of Memi.

3. 1st members' meeting for the academic year 2022-23

The first meeting of the AUPh SEG Student Chapter for the academic year 2022-23 was held on November 11, 2022, at the Department of Mineralogy, Petrology, and Economic Geology. The students that participated in the field trip in Cyprus presented information about the visiting sites and what they learned during the field trip. Some of the topics that the students presented involved the VMS deposits of Skouriotissa, Apliki and Kokkinopezoula-Mitsero, the Amiantos abandoned mines, as well as the ophiolite sequence of Troodos and the mining history of Cyprus.



Figure 6. Members of the chapter a. Margarita Melfou, b. Eleni Pegioudi, c. Alexandros Mpampatzianis and d. Ioanna Alpi during their presentations about the field trip topics of Cyprus

In the second session of the meeting, Ioanna Alpi, President of the student chapter for the academic year 2022-23 outlined the chapter's long-term goals for the new academic year.

4. 3rd Flea Market AUTH-Christmas Edition

The AUTH SEG Student Chapter participated in 3rd Flea Market - Christmas Edition, which was held on December 8-9, 2022 at the AUTH campus. Numerous student chapters had the chance to participate and present their organization and raise money for their future goals by selling a variety of items.

The AUTH SEG Student Chapter sold spectacular rock and mineral samples from the collections of the students (Fig. 5). Some of these specimens were relatively uncommon and had exquisite forms and colors. Numerous university students stopped by the AUTH SEG student chapter's booth as they were captivated by the beautiful and intriguing mineral and rock samples.



Figure 7. The stand of the AUnH SEG student chapter at the 3rd Flea Market - Christmas Edition in the campus.

5. 2nd members' meeting for the academic year 2022-23

The 2nd members' meeting of the AUnH SEG Student Chapter was held on February 13, 2023. Eleni Pegioudi, an undergraduate student and member of the student chapter, had the unique opportunity to attend the second "Michael Fitzgerald Student Mapping Course" in the Copper Flat mine in New Mexico, between 6th and 14th of May, 2022, and gave a presentation about the Porphyry-Breccia System of the mine, as well as her overall experience while participating in this course.

In the second session of the meeting, the members of the Chapter cut the 2023 Vasilopita, wishing good luck and a prosperous New Year. A piece of blue agate (the banded variety of chalcedony) was offered to the member who got the

lucky piece.



Figure 8: Eleni Pegioudi presenting the porphyry-breccia system of the Copper Flat mine.

6. 1st Scientific Meeting for the academic year 2022-23

The 1st scientific meeting for the academic year 2022-2023 was held on February 20, 2023 and featured the 2022 International Exchange Lecturer of the SEG, Keiko Hattori and Jeffrey Hedenquist. Keiko Hattori is a professor at the University of Ottawa, where she teaches courses on mineral deposits and geochemistry. Her ongoing and past research includes element recycling in subduction zones and geochemical and mineralogical studies of porphyry Cu-Au, epithermal Au-Ag, Kuroko base metal, orogenic Au, and unconformity-type U deposits. Her talk was entitled “Tectonic setting and igneous rocks associated with high-grade epithermal gold deposits”. Jeffrey Hedenquist is one of the world's leading experts on epithermal gold systems. He conducted research with the Department of Scientific and Industrial Research-Chemistry Division in New Zealand and the Geological Survey of Japan for 10 years each on geothermal energy development and volcanic discharges, as well as the formation of epithermal gold and porphyry copper deposits. His talk was entitled “Lithocap alteration, Epithermal gold mineralization and transition to the tops of Porphyry deposits: Dogma versus discovery”. The academic advisor of the chapter, Professor Vasilios Melfos, presented also the “Energy Transition Metals in Greek deposits”. The meeting was sponsored by the Society of Economic Geologists and the Special Account for Research Funds of AUnTh and attracted more than 100 people (Fig. 10b).



Figure 9. a. Jeffrey Hedenquist during his presentation about the “Lithocup alteration, Epithermal gold mineralization and transition to the tops of Porphyry deposits: Dogma versus discovery”, b. Professor Keiko Hattori during her presentation “Tectonic setting and igneous rocks associated with high-grade epithermal gold deposits”, c. Professor and Academic advisor Vasilios Melfos presenting the “Energy Transition Metals in Greek deposits”.



Figure 10. a. The Executive Committee and the Academic Advisor of the chapter with Mr. Jeffrey Hedenquist and Mrs. Keiko Hattori, b. The audience at the 1st scientific meeting watching the presentation of Mrs. Hattori.

7. 2nd Scientific meeting for the academic year 2022-23

The second scientific meeting for the academic year 2022-2023 was held on May 11, 2023 at the Department of Mineralogy, Petrology, and Economic Geology and featured two invited lecturers, Ferenc Molnar, Associate Professor at Eotvos Lorand University and Gabriella B. Kiss, Senior Lecturer at Eotvos Lorand University, who presented the “Porphyry and Epithermal systems in Hungary” and “Introduction to fluid-rock interaction in submarine volcanic-hydrothermal systems: mineralogy, geochemistry, ore deposits”. The academic advisor of the chapter, Professor Vasilios Melfos, also gave a presentation with the title “Tectonics and Metallogenesis in NE Greece: the case of Maronia”. The meeting was very interesting and students from both the AUnH SEG student chapter and the Eotvos Lorand University SEG student chapter attended.



Figure 11. a. Associate Professor Ferenc Molnar during his presentation “Porphyry and Epithermal systems in Hungary”, b. Senior Lecturer Gabriella B. Kiss during her presentation “Introduction to fluid-rock interaction in submarine volcanic-hydrothermal systems: mineralogy, geochemistry, ore deposits”.

8. Field trip in Thrace, with the Eotvos Lorand SEG student chapter

The Eotvos Lorand SEG student chapter, along with the academic advisor of the AUPh SEG student chapter, Vasilios Melfos and two AUPh SEG members, Margarita Melfou and Anestis Politis, went on a field trip in Thrace, Greece from 11th to 14th May, 2023. The field trip involved the visit of several different mineralizations from deep intrusion related to shallow epithermal level systems. The prospects visited were: the Kimmeria intrusion-related system, the Maronia porphyry Cu-Mo system, the Perama Hill epithermal system, the VMS Xylagani system and the Triadi chromite mineralization.



Figure 12. The Eotvos Lorand SEG student chapter, with Associate Professor Ferenc Molnar and Senior Lecturer Gabriella B. Kiss, along with the two members of the AUPh SEG student chapter.

9. 3rd Members' meeting for the academic year 2022-2023

The 3rd members' meeting of the AUPh SEG student chapter was held on May 26th, 2023, at the Department of Mineralogy, Petrology, and Economic Geology. Spyros Fragkou, a graduate student of the department of Geology of Aristotle University of Thessaloniki and a valuable former member of the AUPh SEG student chapter, presented the "UV Fluorescence as an exploration tool in Carbonate Replacement Deposits". Spyros is currently a master's student in the department of Geological Sciences at the University of British Columbia, in Canada, having received a full-time scholarship. He holds the position of International Trip Representative on the UBC SEG student chapter. The topic of his master thesis revolves around the characterization of the cryptic alteration of the carbonate replacement deposits of Kassandra District in Halkidiki, N. Greece.

10. Field Trip with the SEG SC of Masaryk University, in Czech Republic

Another member of our student chapter, Despoina Diamanti, an undergraduate student in the 4th year of the AUPh department of Geology, had the chance to participate in the annual field trip of the Masaryk University SEG student chapter, in Czech Republic, which was held from September 4th to 13th, 2023. This field trip

focused on the Energy raw materials of the Czech Republic. The students visited several interesting locations, such as the underground research facility in the former Rožná uranium mine, the underground active black coal mining near Ostrava, the active oil and gas mining in Hodonín, the active uranium leaching site under decommissioning in Stráž pod Ralskem, the active open pit brown coal mining Bílina, and many more.



Figure 13. The Masaryk University Brno SEG student chapter, along with our SEG SC member, Despoina Diamanti, in the Ledvice Power Station in Czech Republic.

Future Plans for the Academic Year 2023-2024

- SEG-SRW-funded field trip to Naxos island scheduled for October 26-29, 2023
- 2nd Open day of the Faculty of Sciences (AUPh), in which our chapter will expose spectacular mineral and rock samples.
- Participation in the upcoming AUPh flea market with the aim of financial support for the implementation of outdoor exercises.
- Presentations from chapter members that will participate in upcoming SEG field trips.
- Several lectures are planned from academic and professional speakers.
- Invitation of the 2023 SEG Lecturer.
- Application for the 2024 Stewart R. Wallace Fund, Round I.