



# SOCIETY OF ECONOMIC GEOLOGISTS, INC.

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## Student Chapter Annual Report Cover Page

Submission Deadline: September 30th

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

STUDENT CHAPTER:

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**2022-2023 Annual Report**

**CUG SEG Student Chapter**

## **1. Introduction**

The year 2022 will finally usher in the end of the COVID-19 epidemic, and with the end of the epidemic, our work can be carried out gradually and orderly. We successfully completed three field internships. These three field trips were unanimously approved by the Student branch committee, and in the process of practice, we improved our field trip ability to varying degrees and gained more professional knowledge of economic geology. The newly formed committee made concerted efforts and organized many activities together. We are committed to link members with both professional geoscientists and students in academia and industry. CUG SEG student chapter provides a platform for members to learn frontier information of Earth Science, take online courses, participate in field trips, and exchange and discuss with each other. We will maintain this enthusiasm and continue to hold more activities with the generous help from SEG.

## **2. Field Trip**

As the pandemic has receded, our association has conducted three field internships this academic year. Although we only applied for a field practice in the past year due to the impact of the epidemic when applying for funds. But with the support of the Resource College and local mining companies, we have also strived for several more field internship opportunities, including Huanxiangwa gold deposit, Manaoke Sediment-hosted gold deposit, Changba Sedex-type Pb-Zn deposit. Specific information about these field trips as follows.

### ***Field Trip I***

**Date:** 7/10/2023-7/16/2023

**Place:** Huanxiangwa gold deposit, Xiaoqinling, China.

**Trip leader:** Dr.Zhao Shaorui

**Organizer:** CUG SEG Student Chapter

**Attendees:** Wenshu Wang (members, Ph.D. candidate), Shengren Chang (members, Ph.D. candidate), Jinhao Liu (members, Ph.D. candidate)

**Sponsors:** SEG Stewart R.Wallace Fund and School of Earth Resources, China University of Geosciences (Wuhan)

North China Craton (NCC) is the most important metallogenic province in China and one of the important gold producing areas in the world. The Craton gold deposit in North China is usually divided into several gold mine collection areas, such as Liaodong-Jinan, Jiaodong, Little Qinling-Xionger Mountain, middle section of Taihang Mountain, northern Hebei-eastern Hebei and Chifeng-Chaoyang (Chen et al., 1998; Yang et al., 2003). In fact, these gold deposits are mainly distributed along the edge of the eastern land block of north China, roughly forming two east and west metallogenic belts extending near north, north and east. Xiaoqinling-Xiongeshan gold mining area is located in the southern end of the west metallogenic belt, gold reserves are second only to Jiaodong, is the second largest gold mining area in China (Chen et al., 1992; Mao et al., 2002; Li et al., 2012). The gold deposit formed in the early Cretaceous of North China is consistent with the peak period of Craton destruction, and has the characteristics of explosive mineralization. The metallogenic fluid mainly stems from the Craton destruction-related magma or mantle devolatilization, and this type of gold mine was named "Craton destructive gold deposit" (Zhu et al., 2015). Huanxiangwa Gold Mine is one of the most important gold deposits discovered and explored in this area since the 1990s. More than 30 gold-containing tectonic alteration zones have been found at present. The current estimated gold resource is about 27 t (Zhang, 2015). Due to the abundant geological phenomena and favorable observation conditions, the Huanxiangwa deposit, which Luanchuan-Luanling Gold ore district is being developed. It is a suitable place for economic geology students at any grade

to understand orogenic gold deposits better.

## **Geology background**

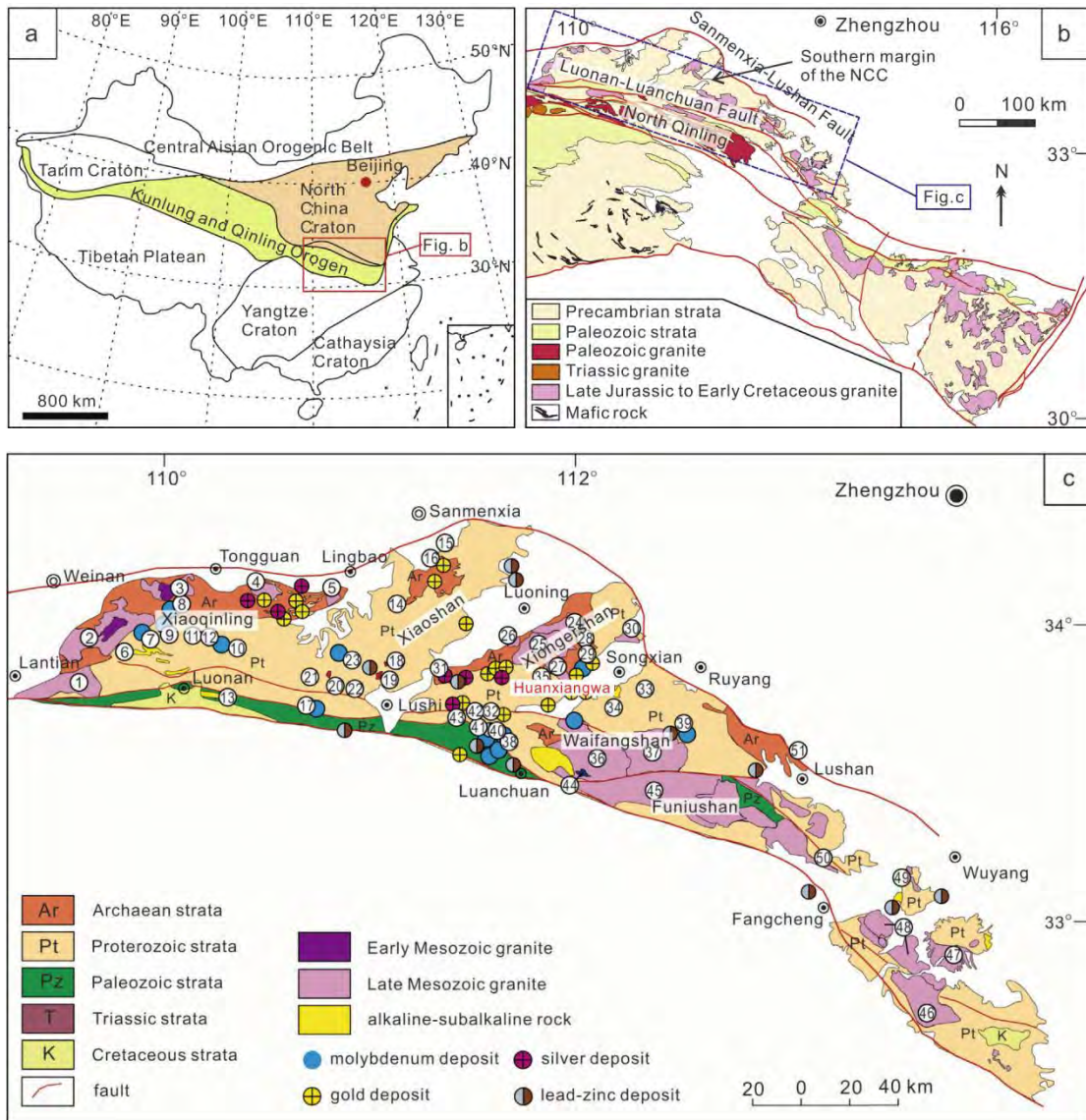
The Qinling Orogenic Belt (QOB) is located at the central part of the E-W trending Central China Orogen. Its formation involved the closure of the Proto-Tethys Ocean and Paleozoic to Mesozoic multiple subduction-collision-accretion between the North China Craton and Yangtze Craton (YC) (Fig. 1a; Dong and Santosh, 2016; Dong et al., 2016; Tang et al., 2016; Li et al., 2016). The QOB consists of four tectonic units from south to north: the northern margin of the YC, South Qinling Belt, North Qinling Belt and the Huaxiong Block representing the reactivated southern margin of the NCC.

They are separated by the Longmenshan Fault, Mianlue Suture, Shangdan Suture, Luanchuan Fault, and San-bao Fault, respectively (Fig. 1b; Chen and Santosh, 2014). The Huaxiong Block is mainly composed of the Late Neoproterozoic to Paleoproterozoic Taihua Group (crystalline basement), the lowest cover of the Mesoproterozoic Xiong'er Group, and the Meso- to Neoproterozoic Guandaokou and Luanchuan Groups (Fig. 1c; Cao et al., 2015; Wang et al., 2016). The Neoproterozoic to Paleoproterozoic Taihua Group comprises graphite-bearing gneiss, marble, banded iron formation (BIF) and amphibolite in the upper unit, and tonalite-trondhjemite-granodiorite (TTG) gneiss and amphibolite in the lower unit (Tang et al., 2015; Zhang et al., 2018). The Xiong'er Group unconformably overlies the Taihua Group and is mainly preserved as a weakly metamorphosed volcanic sequence composed of andesites, basaltic andesites, dacites and rhyolites which were erupted at 1.83 – 1.74 Ga (Zhao et al., 2004; Wang et al., 2019). The Guandaokou and Luanchuan Groups unconformably cover the Xiong'er Group and are mainly composed of carbonate rocks and clastic sedimentary rocks (Yang et al., 2017, 2019).

The Xiong'er area is located at the south part of the NCC (Fig. 1a). It is bounded by the Luoning fault to the north and the Machaoying fault to the south. The Machaoying fault zone is the main geologic structure in the Xiong'er area, extending ~200 km WNW, and is a north-dipping thrust zone formed during a Mesozoic continental collision (Fig. 1b). Numerous NE-striking secondary faults are widespread and serve as

the controlling structure of gold deposits (Fig.1b). In the Xiong'ershan area, Triassic and Late Jurassic to Early Cretaceous granitoids are widely distributed in the northern and southern parts, without any volcanic equivalents. These granitoids mainly consist of large-scale granitic plutons, ore-bearing porphyries, and explosive breccias, which intrude into the Taihua Group and Xiong'er Group (Fig. 1c). For example, the Mogou pluton, which is exposed as several elliptical syenite stocks, represents Triassic alkaline magmatism derived from partial melting of Archean to Paleoproterozoic crust together with mantle input (Tang et al., 2019). The Late Mesozoic granitic rocks, such as the Wuzhangshan, Huashan, Heyu, Leimengou plutons, show emplacement ages of 158 – 131 Ma (Mao et al., 2010; Deng et al., 2013). Extensive polymetallic mineralization occurred in the Xiong'ershan area, including orogenic gold deposits (Mao et al., 2002; Chen et al., 2008), porphyry, quartz-vein and carbonatite- vein Mo deposits (Mao et al., 2011; Hu et al., 2019), breccia pipe hosted gold deposits (Fan et al., 2011; Tian et al., 2017), and hydrothermal vein-type Au and Ag-Pb-Zn deposits (Li et al., 2013, 2016) (Fig. 1c). These deposits are mainly related to three tectonomagmatic-metallogenic events including Paleoproterozoic, Triassic and Late Mesozoic along the southern margin of the NCC and the QOB (Deng et al., 2013; Li et al., 2013; Cao et al., 2017; Zhao et al., 2019).

Huanxiangwa gold Mine is located in the middle of Xiong'ershan mining area, southwest of Wuzhangshan rock mass. The ore body type is mainly eroded rock type and quartz vein type, mainly distributed along the F985 fault. According to the extension. The large magma rock exposed in the mining area is the Wuzhangshan rock mass. The main exposed strata in Huanxiangwa mining area are the volcanic rocks of Xushan Formation and Jidanping Formation in the Middle Proterozoic area. The fault structure of the mining area is relatively developed, with complex fault shape, and different scale and mechanical properties, which together constitute the main structural structure of the mining area. Wuzhangshan rock mass is south-east-north-west in the north-east side of the mining area, and invades into the volcanic rock of Xiong'er group. The lithology is mainly speckled granite. At the same time, the mining area also developed a fine crystalline rock vein.



**Fig. 1** Distribution of the Mesozoic granitoids and deposits in the southern margin of the North China Craton. (a) Tectonic outlines of China showing major tectonic units surrounding the NCC and the location of the Qinling Orogen Belt. (b) Geological map of the Qinling Orogen Belt (modified from Zhang et al., 1996). (c) Distribution of the Mesozoic granitoids and deposits in the southern margin of the NCC.(modified from Zhang et al., 1996).



## Itinerary

### Day 1:

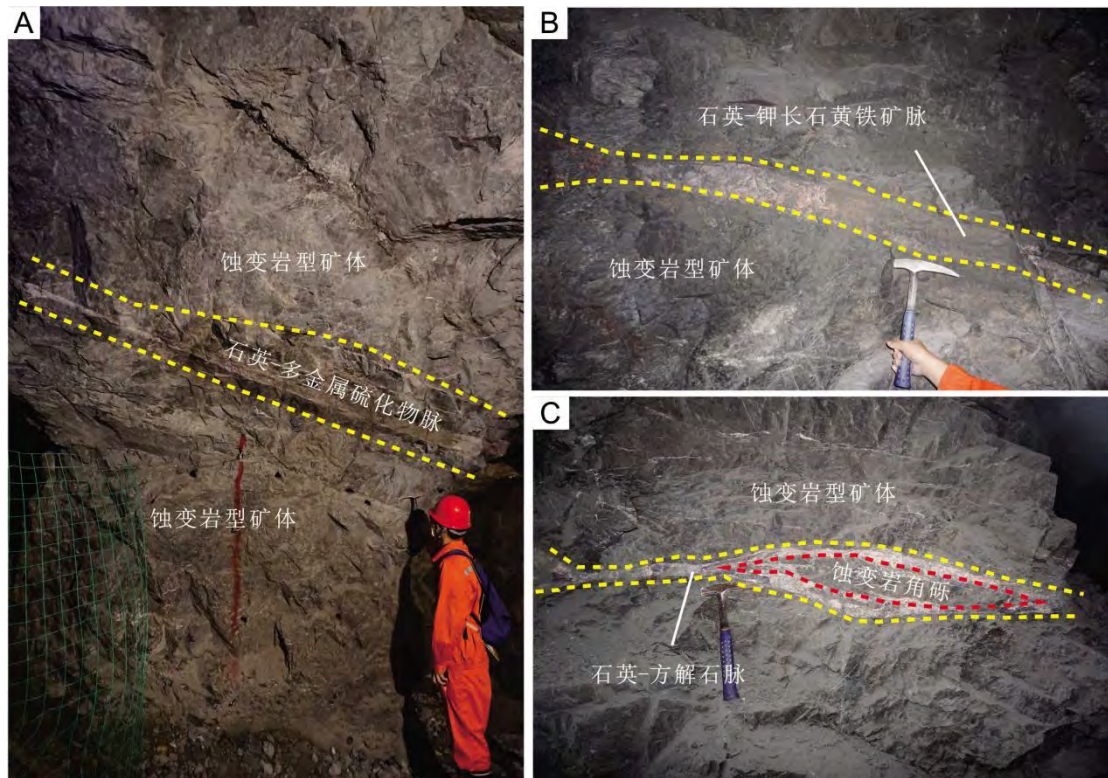
- Attendees went to Luoyang City by high-speed train, then take a car to Songxian town and check in.(Fig. 2).
- Engineers of No. 1 Institute of Geological and Mineral Survey,led the members of the association to explore the mine and introduced the latest exploration progress.
- Observe the surface outside Huanxiangwa gold deposit to learn the wall rock condition.



**Fig. 2** Field group photo

### Day 2~5:

- Search for primary ore bodies and sampling were carried out for different primary ore bodies in the mine. (Fig. 3).



**Fig. 3** Observation of field phenomena

### Day 6~7:

- Go into the underground mine and observe the rich ore body being mined.
- Get some samples of granite and andesite from the outcrop outside the mine area.

### Benefits for students

Through the geological practice in Huanxiangwa Gold mine these days, we have made a detailed observation on the features of ore-bearing strata, ore-controlling structure, ore-body formation, ore structure and surrounding rock alteration in Huanxiangwa gold mine.

Through the interpretation of Shaorui Zhao, Shengren Chang and Wenshu Wang, we understand how to carry out the investigation in the mining area, how to correctly observe and describe the geological phenomena, and as far as possible scientific sampling and collection of information, in order to facilitate the follow-up further work. During the seven days of field work, Zhao Shaorui led us to observe and sample the strata, structure, wall rock alteration and ore type of the Huanxiangwa gold mine in detail, so that we can have a more detailed grasp of the field work, and have a more

profound understanding of the Huanxiangwa gold mine, laying a foundation for the subsequent scientific research work.

## **Field Trip II**

**Date:** 8/21/2023-8/28/2023

**Place:** Manaoke Sediment-hosted gold deposit, West Qinling, China.

**Trip leader:** Dr.Zhao Shaorui

**Organizer:** CUG SEG Student Chapter

**Attendees:** Huan Tao (Ph.D candidate), Jinhao Liu (Msc candidate),

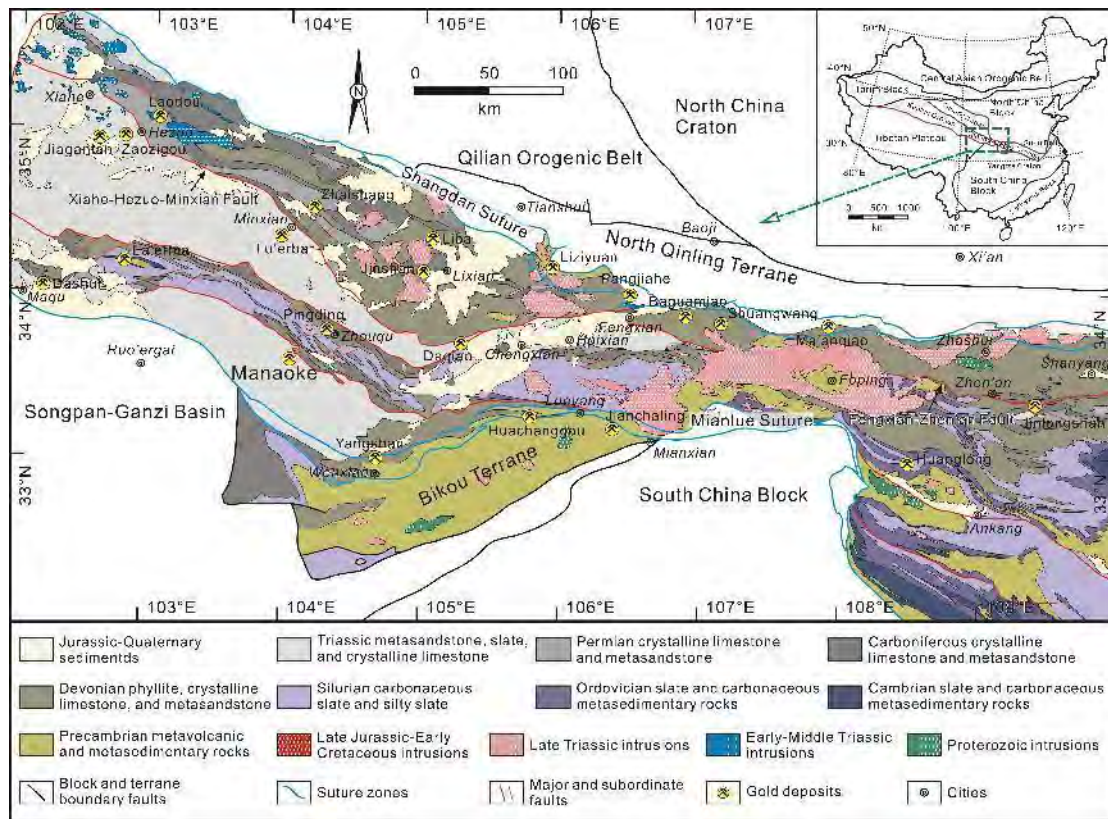
**Sponsors:** School of Earth Resources, China University of Geosciences (Wuhan)

Sediment-hosted gold deposits are one of the most important types of gold deposits in the world. Typical representatives include the Yunnan-Guizhou-Guangxi gold ore concentration area, the Western Qinling gold metallogenic belt, the Yukon region of Canada, the Nevada gold metallogenic province of the United States, and the Sukhoi Log gold deposit in Siberia (Hu et al., 2002; MacKenzie et al., 2010; Large et al., 2009; Meffre et al., 2008). Predecessors have done a lot of research on the geological characteristics, ore-forming material sources, ore-forming fluid sources and evolution, and metallogenic age of this type of gold deposits. However, due to the small particle size and complex structure of gold-bearing minerals (sulfides) in this type of deposits, the occurrence form and enrichment mechanism of gold in this type of deposits are still unclear. The understanding of the genetic types and metallogenic models of this type of gold deposits is still controversial. The western Qinling orogenic belt is the most important Phanerozoic orogenic belt in China, and it is also one of the typical metallogenic belts of sediment-hosted gold deposits. Located in the western end of the South Asian belt of the West Qinling orogenic belt, the Bailongjiang anticline near the Songpan-Ganzi orogenic belt is

distributed in a series of gold deposits in sedimentary rocks, such as Dashui, Laerma, Pingding, Manaoke and so on. The Manaoke gold deposit is developed in the south wing of the Bailongjiang anticline, and the ore body is hosted in the Triassic shallow metamorphic turbidite. It is one of the most typical sediment-hosted gold deposits in the Bailongjiang anticline area. The study of the genesis of the Manaoke gold deposit, a typical sediment-hosted gold deposit, is not only helpful to the determination of the genesis of this deposit and the establishment of the metallogenic model. Its research ideas, research methods and genetic models have inspired the entire Bailongjiang anticline area and even the entire West Qinling orogenic belt.

### **Geology background**

The Manaoke gold deposit is located in the southern wing of the Bailongjiang anticline in the western Qinling orogenic belt. It is controlled by the Maqu-Lueyang fault zone in the eastern part of the Mianlue suture zone. A set of flysch formation is widely exposed in the area, which is mainly composed of middle-upper Triassic interbedded sandstone and slate, with a small amount of limestone. Magmatic activity is weak, and a small amount of Indosinian and Yanshanian intermediate-acid intrusive rocks are developed. The strata of calcareous, silty, argillaceous sandstone and slate interbedded in the Middle Triassic Zhagashan Formation are mainly exposed in the mining area. The strata are generally NW-trending and NE-trending. Affected by secondary small folds, the attitude of strata in different locations changes greatly. No large fold structure was found in the mining area, and only small folds and crumpled structures were developed. However, multi-stage intersecting fault structures were developed in the mining area, and no magmatic rocks were exposed in the mining area. The ore bodies of the Manaoke gold deposit are mainly layered, veined, and thin lenticular in the NW-trending faults and interlayer fracture zones. The thickness of the ore body is 1-24 m, and the single sample level is 0.5-18.47 g / t. The average grade of the ore body is 1.78-3.53 g / t, and the average grade of the deposit is 2.74 g / t. The ores are mainly micro-disseminated altered rock type ores and vein ores, and gold mainly occurs in micro-disseminated arsenic-bearing pyrite and arsenopyrite.



**Fig. 4** Geology of the West Qinling Orogen.

## Itinerary

### Day 1:

- Engineers of Manaoke Gold Mine Co., Ltd. led the members of the association to explore the mine and introduced the latest exploration progress. (Fig. 5).



**Fig. 5** Field group photo

### **Day 2~6:**

- Search for primary ore bodies and collect them (Fig. 6).
- Field observation and sampling were carried out for different primary ore bodies in the mine.



**Fig. 6** Observation of field phenomena

### **Day 7~8:**

- According to the geological map to find different structural positions in the region, observe and recorded.



**Fig. 7** Find the main ore bodies and structures according to the geological map

### **Benefits for students**

Through the geological practice in Manaoke Gold mine these days, we have made a detailed observation on the features of ore-bearing strata, ore-controlling structure, ore-body formation, ore structure and surrounding rock alteration in Manaoke gold mine. And we have a deeper understanding for the metallogenic characteristics of Sedimentary rock-hosted gold deposits.

Through the interpretation of Shaorui Zhao, we understand how to carry out the investigation in the mining area, how to correctly observe and describe the geological phenomena, and as far as possible scientific sampling and collection of information, in order to facilitate the follow-up further work.

During the eight days of field work, Zhao Shaorui led us to observe and sample the strata, structure, wall rock alteration and ore type of the Manaoke gold mine in detail, so that we can have a more detailed grasp of the field work, and have a more profound



understanding of the Manaoko gold mine, laying a foundation for the subsequent scientific research work.

### **Field Trip III**

**Date:** 9/20/2023-9/30/2023

**Place:** Changba Sedex-type Pb-Zn deposit, Gansu province, China.

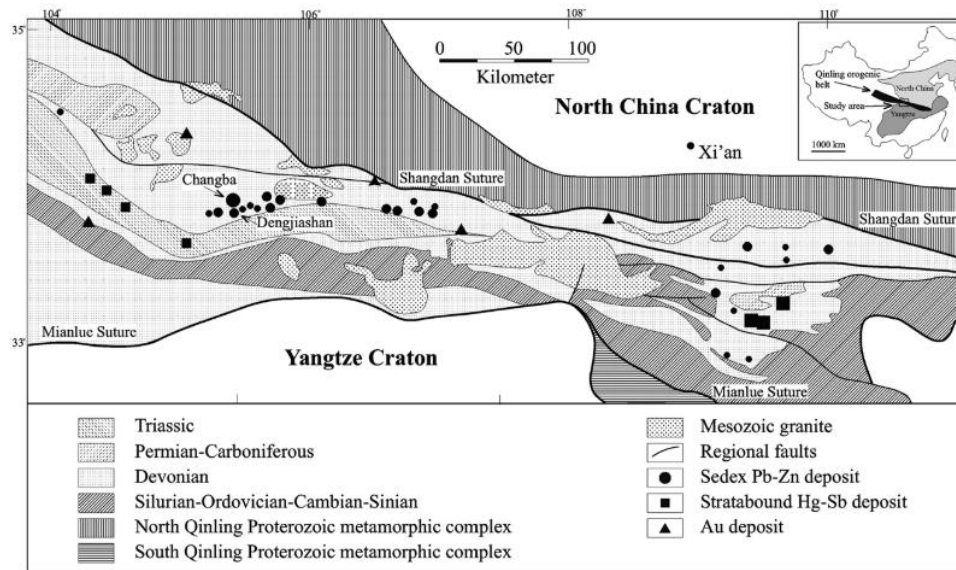
**Trip leader:** Dr.Zhanke Li

**Organizer:** CUG SEG Student Chapter

**Attendees:** Zuzhen Suo(Msc candidate), Jia Hu (Msc candidate), Jun Zhang (Msc candidate)

**Sponsors:** School of Earth Resources, China University of Geosciences (Wuhan)

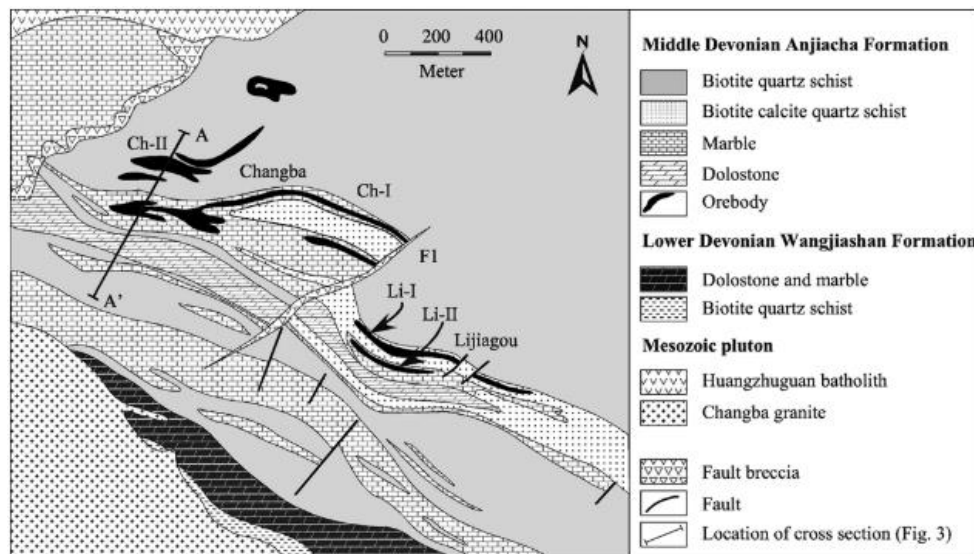
The Qinling polymetallic belt is one of the important producers of Pb-Zn in China. The Middle Devonian rocks of the belt contain the Changba and five other large (Pb + Zn >1 million tonnes) deposits. It also contains Mesozoic stratabound Hg-Sb and Au deposits (Fig. 8). The lead-zinc Qinling orogenic belt is characterized by the coexistence of two types of deposits: 1) stratiform SEDEX deposits hosted by fine-grained clastic rocks in the northern part of the belt; and 2) stratabound deposits hosted by chert in the southern part of the belt. The Changba deposit is an example of stratiform SEDEX whereas the Dengjiashan deposit is an example of the stratabound deposits (Fig. 1). Changba is the largest and most important economically deposit in the Qinling belt with total Pb + Zn metal reserves of 11.2 million tonnes. It was discovered in the early 1960s and exploited during the 1980s. Between the middle 1970s and middle 1980s, the Changba deposit was regarded as a Mississippi Valley-Type deposit based on Pb-S isotope compositions and fluid inclusion data (Wang, 1984). SEDEX origin based on exhalative hydrothermal features was proposed by Qi and Li (1993) and Wang (1996), reinterpretation of the regional tectonic, magmatic, sedimentary and metamorphic history of the region.



**Fig. 8** Regional geology showing mineral deposits hosted by Devonian rocks in the Qinling orogenic belt (after Qi and Li 1993). Size of mineral deposit symbol indicates relative size of mineral resources)

and comparison with SEDEX deposits in other parts of the world (Large, 1983; Goodfellow et al., 1993; Lydon, 1996).

The Changba Pb-Zn SEDEX deposit occurs in the Middle Devonian sequence of the Anjiaca Formation of the Western Qinling Hercynian Orogen in the Gansu Province, China. The Changba-II orebody is hosted in biotite quartz schist and is the largest of 143 stratiform orebodies that are hosted either in biotite quartz schist or marble. The Changba-II comprises two types of mineralization: a bedded facies and an underlying breccia lens. The bedded section exhibits three sulfide sub-facies zoned from bottom to top: 1) banded sphalerite intercalated with quartz albite; 2) interbedded massive pyrite and sphalerite ore; and 3) banded sphalerite ore intercalated with banded barite. Major metallic minerals are sphalerite, pyrite, galena, with minor arsenopyrite, pyrrhotite, boulangerite, and rare chalcopyrite. The bedded sulfides are underlain by a lens of brecciated and albitized biotite-quartz schists cemented by sulfides and tourmaline.



**Fig. 9** Geologic map of the Changba Pb-Zn deposit (after 706 Team of Northwest Metal Corp.).  
Orebodies: Ch-I: Changba-I, Ch-II: Changba-II; Li-I: Lijiagou-I; Li-II: Lijiagou-II.

### Benefits for students

Through the geological practice and Dr Li Zhanke's instruction in Changba Pb-Zn SEDEX deposit these days, we have made a detailed observation on the features of ore-bearing strata, ore-controlling structure, ore-body formation, ore structure and surrounding rock alteration in Changba Pb-Zn SEDEX deposit. And we have a deeper understanding for the metallogenic characteristics of SEDEX deposit.

From field exploration to core cataloging, from underground investigation to ore sorting, from mining practice training to regional exploration, we had a comprehensive understanding of the main process of mineral exploration to development and application in a short but substantial week, which laid a solid foundation for us to engage in relevant geological majors in the future.



**Fig. 10** Visit the mine



**Fig. 11** Field group photo

### 3. Organization lectures and short courses

Advisors of CUG SEG Student Chapter Prof. Jian-Wei Li and Xin-fu Zhao regularly invited economic geologists worldwide to China University of Geosciences (Wuhan) to give lectures and short courses for students in our university. This year we held a total of three lectures. The invited professors covered different aspects of geology. This is an important way to contact with the economic geology community at large. By attending the short courses and lectures, students could understand the latest development of the industry, learn the latest knowledge of the professional field, and talk closely with professors. Details of lectures and short courses can be found in posters below.

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开课时间: 2022.11.14-11.19, 19:00-21:00  
腾讯会议: 918-295-7185 密码: 430074

**Bernd Lehmann**教授, 国际知名矿床学家, 德国克劳斯塔尔工业大学 (Technical University of Clausthal) 教授, 长期致力于矿床学和矿床地球化学研究, 专长于多种金属矿床形成机理、地序与评价研究, 研究足迹跨越欧洲、南北美洲、非洲和亚洲50多个国家, 发表SCI论文超过二百篇, 自2000年起担任矿床学国际重要期刊《Mineralium Deposita》主编。

Focus on important types of iron, copper, gold and uranium deposits

- Sedimentary iron ore deposits.
  - Oolitic iron ore deposits (Fe)
  - Banded iron formation (Fe) + supergene/hypogene enrichment (high-grade Fe)
- Copper ore deposits (hydrothermal).
  - Copper porphyries (Cu, Au, Mo)
  - Massive sulfide/SEDEX deposits (Cu, Zn, Pb, Ag)
  - Kupferschiefer type (Cu, Ag, Co) + Supergene enrichment
- Gold ore deposits (hydrothermal).
  - Quartz lode deposits/Orogenic gold vein deposits (Au)
  - Epithermal gold deposits (Au, Ag) + Supergene enrichment (placers)
- Uranium ore deposits (hydrothermal).
  - Unconformity-related to rollfront deposits (U) and other redox-controlled deposits

欢迎大家参加!  
资源学院  
2022年11月4日

1952  
中国地质大学 70周年校庆系列讲座  
资源学术论坛第167期  
2022

研究生在线课程Giant Metallic Deposits  
开课时间: 2022.11.01-11.13, 19:00-21:30  
腾讯会议: 305-6830-6617 密码: 2022

**周美夫**教授, 中国科学院地球化学研究所研究员, 研究领域涉及岩石学、矿床学、地球化学和区域地质等多方面综合研究。近20多年来在大火成岩省岩浆成矿作用、扬子地块西缘元古宙地壳演化及Fe-Cu-REE矿床成因, 以及蛇绿岩和豆荚状铬铁矿床等研究领域均取得了突出成果。获得“海外杰出青年基金”、香港大学“杰出青年研究奖”、杰出研究生导师奖”等, 2012年当选为美国地质学会和经济地质学会会士, 现担任Journal of Asian Earth Sciences主编。

**Daniel Harlov**教授, 德国地质研究中心高级研究员, 主要研究方向涉及实验岩石学、矿物学、热化学模拟和岩石学等, 包括地壳中流体在变质过程中的作用, 不同P-T范围内矿物平衡实验, 矿物-流体交互反应, 热动力学模拟, 铁氧化物碱灰石IOA和RE矿床等, 现在为American Mineralogist副主编, Lithos副主编。

**Reimar Seltmann**教授, 英国自然历史博物馆教授, 长期从事金属成矿与区域地壳演化研究, 尤其在天山和乌拉尔成矿带, 克孜尔库姆、哈萨克斯坦等地区开展金-铜-铀成矿规律的系统研究, 是国际地质对比计划项目IGCP-662, 373, 473, 592负责人, 主持建成当前中亚区域最完整地质矿产空间数据库, 是中亚地质矿产研究方面最具影响力的科学家之一, 担任国际期刊Ore Geology Reviews, GCA等期刊副主编, 国际矿床成因协会终身荣誉会员。

欢迎大家参加!  
资源学院  
2022年10月25日



#### **4. Fund-raising programs**

The CUG SEG student chapter raises funds by participating in academic activities held by the School of Earth Resources and China University of Geosciences (Wuhan) to receive supports from them.

#### **5. Plans**

As the pandemic has receded, CUG SEG student chapter plans organize the SEG student chapters' salon in the next year's meeting. The followings are the plans of our student chapter: 1) Assist School of Earth Resources in organizing academic activities

such as “Finding Si-Guang Li Geological Skills Competition” and “Conference of Scientific Paper Report”.

2) Organize regular academic discussions within CUG SEG Student Chapter students weekly. Members in the different research fields can learn from each other.

3) Establish contacts with other associations within the School of Earth Resources to discuss the development of academic associations, such as SPE (Society of Petroleum Engineers).

4) Continue to invite scholars in field of geology to give short courses and lectures for CUG SEG Student Chapter members. Continue to establish contact with some mining companies, for example, Zijin Mining Group Co., Ltd., hoping to raise more field trips for SEG members.

## **6. Acknowledgment**

We want to thank SEG for encouraging and supporting the CUG SEG Student Chapter for these years. Many meaningful activities can be carried out owing to SEGs guidance and assistance. We are confident that more good activities will be held in the future to truly help chapter members make progress in the research of economic geology.

## Financial Report

Sep 2021 to Sep 2022

During the 2022-2023 academic year, the CUG SEG Student Chapter successfully organized a variety of activities funded by Student Chapter Funding and Student Activity Grant in CUG. Due to the problem of the mail, we haven't received the US\$1250 from Round II 2022 Student Chapter Funding from the Stewart R. Wallace Fund yet. However, Professor Xinfu Zhao and the School of Earth Resources in CUG have donated CNY 9,000 yuan and CNY 1,500 yuan to us respectively to support student activities. Due to the impact of COVID-19, the association suspended all external activities in the second half of 2022. Later, in July this year, we conducted a field trips to train chapter members' geological skills. The field trip I was funded by Prof. Zhao's scientific research project, local government and School of Earth Resources CUG. The specific use of funds is shown in the table below. The fees mainly include membership fee, publicity fee, book fee and tea break (fee). The specific use of funds is shown in the following table.

Usage of Found		
Contributions	Amount	Comments
Surplus (2010-2022)	+CNY 54.95	
Subsidize from Professor Xinfu Zhao	+CNY9000	
Student Activity Grant in CUG	+CNY 1500	
Joining Fee	-CNY 700	
Books Cost	-CNY 500	Including the train tickets, bus tickets, car rental, hotel fees, meals etc.
Publicity Expenses	-CNY 292.63	
Field Trip to Shuiyindong gold deposit	-CNY 9020	
		Total: CNY 43.32



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## 2022 CUG SEG STUDENT CHAPTER FIELD TRIPS FINANCIAL REPORT

### Field trip I

Date: 7/10/2023 - 7/16/2023

Place: Huanxiangwa gold deposit, Xiaoqinling, China.

Number of personnel: Three

#### Detail expenditure of Field Trip

Category	Unit price (CNY)	Quantity of per day	Number of days	Total price (CNY)
Train Ticket (Forth)	700/capita	3	1	2100
Train Ticket (Back)	700/capita	3	1	2100
Bus Ticket	50/capita	2	1	100
Car Rental	200/capita	1	6	1200
Hotel	200/day	2	6	2400
Meal and Drinks	40/day	3	6	720
Tools for Sampling	100/capita	1	1	100
Mailing Samples	300/capita			300
Total: (CNY)				9020

\*These field trips were funded from SEG/SEGF with 1250 USD ( $\approx$ 9122RMB).

\*School of Earth Resources CUG sponsored 1000 RMB.

\*Rest of expenditure was from professor Xinfu Zhao.