

2016 ACTER Annual Field Symposium

Orogenesis during Supercontinent Cycles

Xian, China, 20–29 October 2016

2nd Circular

The 2016 ACTER Annual Field Symposium, focusing on orogenesis during supercontinent cycles, will involve a two-day indoor workshop and an eight-day field excursion across the Qinling orogenic belt. The indoor workshop includes presentations and open discussions on topics related to orogenesis, formation and modification of continents during supercontinent cycles, and deep mantle dynamics. The symposium aims to bring together geologists, petrologists, geochemists, geochronologists and geophysicists, including both academic researchers and postgraduate students, to integrate diverse disciplines and methodologies in this exciting research field.

1. Dates: 19 – 29 October 2016

Registration and Icebreaker: 19 October 2016
Indoor workshop: 20-21 October 2016
(1.5 days for workshop and 0.5 day for optional tourism)
Field excursion: 22-29 October 2016

2. Registration fees

Indoor symposium (including Icebreaker, meals excluding breakfast, and program printouts):

150 USD or 1000 RMB

Field excursion (including field accommodation, meals, transportation and site-entry tickets):

USD 690 or 4800 RMB for single-room accommodation;

USD 450 or 3200 RMB for shared-room accommodation.

Terra-Cotta Warriors tour (including meals, transportation and site-entry ticket):

USD 70 or 500 RMB

Note: Tourism is optional, and it will be in the afternoon of 21 October 2016.

3. Field excursion

3.1 The Qinling Orogenic Belt formed during the Mesozoic continental collision between the North and South China blocks. During this field excursion we examine the architecture of this well know orogen, from the northern foreland, across the orogen, to the southern foreland. We will study the characteristics of rock associations and tectono-magma record of the southern margin of North China Block, that of the Northern and Southern Qinling tectonic belts, and try to understand the evolution of the Qinling orogeny. **Maximum number of participants for the field excursion is 30.**

3.2 Major targets of the field excursion include:

- (1) Neoarchaeon-Paleoproterozoic rock associations, their structural characteristics, and metamorphism and deformation at the southern margin of the North China Craton;
- (2) Mesoproterozoic-Neoproterozoic volcano-sedimentary associations of the southern margin of the North China Craton;
- (3) composition and structural deformation of the Northern Qingling Belt;
- (4) characteristics, formation and evolution of the Shangdan suture;
- (5) Southern Qinling Paleozoic sedimentary associations, Indosinian magmatism, and structure;
- (6) Yanshanian magmatism, deposition, and deformations;
- (7) Foreland basin development on southern side of the orogen.

3.3 Field schedule (8 days, Oct. 22–29):

Day 1: Northern Qinling orogenic belt

Route: Xi'an—Zhouzhi—Heihe (*stay overnight in Zhouzhi*)

Content: Examine the early Paleozoic trench/arc/back-arc basin domains in the Northern Qinling Belt, including early Paleozoic ophiolite, pillow lava, intrusions and Precambrian basement.

Day 2: The Shangdan suture

Route: Zhouzhi—Heihe—Foping—Xi'an (*stay overnight in Xi'an*)

Content: Examine the early Paleozoic ophiolite, fore-arc sedimentary wedge, ductile shear zone and gold deposits related to the fore-arc sedimentary wedge.

Day 3: The southern North China margin

Route: Xi'an—Luofu—Luonan (*stay overnight in Luonan*)

Content: Examine (1) Neoproterozoic-Palaeoproterozoic rock associations, structural characteristics, metamorphism and deformation of the southern margin of the North China Craton; (2) Mesoproterozoic-Neoproterozoic volcano-sedimentary association of the southern margin of the North China Craton; (3) Yanshanian magmatism.

Day 4: Northern Qinling

Route: Luonan—Shangluo (*stay overnight in Shangluo*)

Content: Examine some key records of sedimentation, unconformity, and deformation etc. in relation to the tectonic evolution of the North Qinling terrane and an island-arc.

Day 5: The northern part of South Qinling

Route: Shangluo—Shanyang (*stay overnight in Shanyang*)

Content: Devonian sedimentation, Indosinian deformation and rapakivi granitoid intrusions.

Day 6: Southern Qinling

Route: Shanyang—Jinjiling—Ankang (*stay overnight in Ankang*)

Content: Lower Paleozoic to Triassic successions and their deformation in the South Qinling belt.

Day 7: Southern Qinling and northern Yangtze fold-and-thrust belt

Route: Ankang—Ziyang—Wanyuan (*stay overnight in Wanyuan*)

Content: Lower Paleozoic sedimentation and deformation, mafic dykes, and Jurassic red basin in the South Qinling belt. Permian-Jurassic sedimentary succession and foreland fold-and-thrust belt in the northern Yangtze craton.

Day 8: Wanyuan—Xi'an (drive back to Xi'an)

4. Accommodation

The accommodation will be arranged at the Guest House of Northwest University.

Address: Northwest University

229 Northern Taibai Road, Xi'an.

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5. Contacts and Correspondences

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