

International Association for Gondwana Research

2018 Convention & 15th International Conference on Gondwana to Asia



Xi'an, China, September 24-28, 2018

Organized by
Northwest University (China)



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Conference report

IAGR 2018 Annual Convention and 15th International Symposium on "Gondwana to Asia", Xi'an, China

The Annual Convention of the International Association for Gondwana Research (IAGR) 2018 and 15th International Symposium on "Gondwana to Asia" was organized by the Northwest University, Xi'an, China, during September 24–28, 2018. The convention and symposium were organized by IAGR and hosted by the State Key Laboratory of Continental Dynamics, Collaborative Innovation Center of Continental Tectonics and Department of Geology of Northwest University. IAGR annual conventions are highly reputed in providing an excellent global platform for academic exchange, particularly in the fields of continental and orogenic history, orogeny, life evolution, natural resources and environment.

The conference started with a welcome reception and icebreaker on 23rd September at the Howard Johnson Hotel in Xi'an, China, and the technical sessions were organized during September 24–26, 2018 with oral and poster sessions. More than 100 delegates from 11 countries including Australia, China, Germany, India, Japan, Russia, South Korea, Thailand, Turkey, United Kingdom and USA participated in the meeting (Fig. 1). China has figured with the highest number of delegates. All the details of technical sessions, abstract volume and the Field Excursion guide were provided to the delegates before the Conference. The Conference focused on a wide range of topics and the focal themes include: (i) Continents, cratons and supercontinents, (ii) Tectonics and metallogeny, (iii) Life evolution and surface environment.

On 24th September, 2018, the conference inaugural session, chaired by Prof. Yunpeng Dong, the vice chairman of IAGR and director of the State Key Laboratory of Continental Dynamics, Northwest University, started with a welcome address by Prof. Jiang Chang, the Vice-President of Northwest University, who warmly welcomed the delegates. This was followed by the inaugural addresses of Prof. M. Santosh, the secretary general of IAGR, Prof. Joseph G. Meert, president of IAGR, and Academician Guowei Zhang. The technical sessions of oral presentations were designed based on recent significant themes; each one is preceded with one or two keynote talks by renowned researchers with a total of 13 keynote talks. The first technical session was on Continents, cratons and supercontinents and was chaired by Profs. M. Santosh and Hongfu Zhang in the first part, by Profs. Guochun Zhao and Michael Brown in the second part and by Profs. Joseph Meert and Sanzhong Li in the third part. The first keynote was on "Precambrian Supercontinents: Fact and Myth" by Joseph Meert (USA), in which he discussed the toolkit for documenting supercontinent assembly and dispersal and assessed the current state of affairs regarding Precambrian supercontinents. Damian Nance (USA) was the next keynote speaker on "Supercontinents and the case of Pannotia". In his talk he speculated about Pannotia as a controversial supercontinent in the context of paleogeographic reconstructions and geochronological constraints as

from these data alone it remains unclear whether an Ediacaran supercontinent ever amalgamated. The third keynote by Mudlappa Jayananda (India) on "From dynamics of crust-mantle system to craton formation in the Archean: Insights from the Dharwar craton, Southern India" highlighted that the Dharwar craton differentiated in several stages from 3.6 to 2.52 Ga. The fourth keynote talk was on "Secular and cyclic variation of the heat budget of metamorphism: geodynamic implications" by Michael Brown (USA), who concluded that stable subduction and the generation of a network of plate boundaries became possible after the balance between heat production and heat loss changed in favor of secular cooling possibly as early as 3.0 Ga. The fifth keynote on "High temperature-pressure Mesoproterozoic metamorphism: a new data point for early Earth geodynamics" was by Martin Hand (Australia), who presented inferred P-T conditions and a post-peak history suggesting that the southern Dharwar Craton may contain remnants of world's first orogenic plateau. The sixth keynote talk was by Christopher Spencer (Australia) on "Plumes, Rifts, and Continental Emergence", in which he suggested that greater attention is needed when interpreting detrital zircon oxygen isotopes to model crustal evolution and that the degree of supracrustal input into presumed magmatic zircon may be overestimated.

The second technical session started on September 25 and continued on September 26 under the theme of "Tectonics and metallogeny". The first part of the session was chaired by Christopher Spencer and Yongjiang Liu, the second by Inna Safonova and Nick Roberts, the third by Toshiaki Tsunogae and Junlai Liu, and the fourth by Sijun Glorie and Sanzhong Li. There were six key notes in the session. The first keynote talk was by Nicholas Rawlinson (UK) on "Genozoic intraplate volcanism beneath eastern Australia: Insights from seismic tomography and geodynamic modelling", in which he showed that the volcanism manifests as both age-progressive volcanic tracks and non-age progressive lava fields. The second one was on "Paleozoic Tectonic Evolution of NE China" by Yongjiang Liu (China), the winner of 2017 best paper in Gondwana Research (see below). The third key note was by Inna Safonova (Russia) on "The Imbrurandy accretionary complex of the northern Balkhash area in central Kazakhstan: evidence for an Ordovician ocean and tectonics erosion" (supported by project 14. Y2631.0018, Ministry in Education and Science RF). She presented first information and analytical data from an accretionary complex never studied during the last 40 years and showed first evidence for tectonic erosion in post-Silurian time therein. The fourth keynote talk was on "Lithospheric Structure of Northern Tibet and Its Uplift and Extension Mechanism" by Junmeng Zhao (China), who presented ANTILOPE (Array Network of Tibetan International Lithospheric Observation and Probe Experiment) project to determine the boundary between the India plate and the Eurasia plate beneath the Tibetan Plateau. The fifth keynote talk was by Prof. Mingguo Zhai (China) on "High-grade granulite facies metamorphism is a key to understand

* Corresponding author.
E-mail address: inna03-64@mail.ru (I. Safonova).

Oral presentation program

September 23, 2018	
14:00 ~ 18:00	Registration
18:00 ~ 21:00	Icebreaker Party
September 24, 2018	
8:30 ~ 9:00	Opening ceremony: Chairman: Yunpeng Dong
	Welcome address from Univ. President
	Opening Ceremony Address by IAGR Secretary General: M. Santosh
	Greetings from IAGR President: J.G. Meert
	Greetings from Guowei Zhang
9:00~9:30	Group Photo: Upstairs at the Lobby
	Coffee & Tea Break
9:30~12:00	Session 1: Continents, cratons and supercontinents Chairman: M. Santosh & Hongfu Zhang
9:30	Keynote: Joseph G. Meert , University of Florida, USA Precambrian Supercontinents: Fact and Myth
9:55	Keynote: R. Damian Nance , Ohio University, USA Supercontinents and the case for Pannotia
10:20	Apsorn Sardrud , Mineral Resources Research and Development Center, Thailand Are Earth's oldest evolved rocks impact melts?
10:40	Li Tang , China University of Geosciences (Beijing) Neoproterozoic-Paleoproterozoic terrane assembly and Wilson cycle in the North China Craton: an overview from the central segment of the Trans-North China Orogen
11:00	Keynote: Mudlappa Jayananda , University of Hyderabad, India From dynamics of crust-mantle system to craton formation in the Archean: Insights from the Dharwar craton, Southern India
11:25	Shanshan Li , China University of Geosciences (Beijing) Neoproterozoic microblock amalgamation in the southern Dharwar Craton: evidence from the Nallamalai Suture Zone
11:45	Sapneswar Sahoo , Indian Institute of Technology (ISM) Geology and Geochemistry of the Sonakhan greenstone belt, Bastar Craton, Central India
12:05~13:30	LUNCH BREAK AND POSTER SESSION
13:30~15:15	Session 1: Continents, cratons and supercontinents Chairman: Guochun Zhao & Michael Brown
13:30	Keynote: Michael Brown , University of Maryland, USA Secular and cyclic variation of the heat budget of metamorphism: geodynamic implications
13:55	Timothy Johnson , Curtin University, Australia Are Earth's oldest evolved rocks impact melts?

10:35~12:20	
	Session 2: Tectonics and metallogeny Chairman: Inna Safonova & Nick Roberts
10:35	Keynote: Winner of 2016 best paper in the journal of Gondwana Research Yongjiang Liu , Ocean University of China Paleozoic Tectonic Evolution of NE China
11:00	Zhexuan Li , Northwest University, China Magmatic hydrothermal exhalative-related and deep derived clastic sedimentary rocks and its geological significance
11:20	Xiao Xiong , Northwest University, China Fluid inclusion geochemistry and magmatic oxygen fugacity of the Wenquan Triassic molybdenum deposit in the Western Qinling Orogen, China
11:40	Feifei Liu , China University of Petroleum (East China) Detrital zircon U-Pb geochronology of Early Cretaceous sedimentary rocks in Dingzi Bay and Taolin area from the Sulu Orogenic Belt: provenances and tectonic implications
12:00~13:30	LUNCH BREAK AND POSTER SESSION
13:30~15:35	Session 2: Tectonics and metallogeny Chairman: Toshiaki Tsunogae & Junlai Liu
13:30	Keynote: Inna Safonova , Novosibirsk State University, Russia The Imurundy accretionary complex of the northern Balkhash area in central Kazakhstan: evidence for an Ordovician ocean and tectonic erosion
13:55	Pengfei Li , Guangzhou Institute of Geochemistry, Chinese Academy of Sciences Tectonic models for oroclinal bending in the Central Asian Orogenic Belt
14:15	Hui-Chun Chen , Institute of Earth Sciences, Academia Sinica Subduction-related mantle metasomatism and partial melting in the northern North China Craton: Insights from the Siziwangqi magmatic suite, Inner Mongolia
14:35	Lixi Tong , Northwest University, China Permian UHT granulite metamorphism in the Chinese Altai orogenic belt and tectonic implications
14:55	A. Feyzi Bingöl , Firat University, Turkey Cadomian Terrain in Turkey: Assemblage and Fragmentation of North of Gondwana
15:15	Shuyun Cao , China University of Geosciences (Wuhan) Multistage metamorphic-deformation and exhumation of Ailaoshan-Diancangshan metamorphic complexes, SE Asian
15:35~15:55	Coffee & Tea Break
15:55~18:00	Session 2: Tectonics and metallogeny Chairman: Stijn Glorie and Sanzhong Li
15:55	Keynote: Junneng Zhao , Institute of Tibetan Plateau Research, Chinese Academy of Sciences Lithospheric Structure of Northeastern Tibet and Its Uplift and Extension Mechanism
16:20	Renzhi Zhu , Northwest University, China Early-Cretaceous magmatism in the southeastern Tibet
16:40	Longlong Gou , Northwest University, China Crustal thickening of the Tibetan basement near Amdo during the Early Jurassic
17:00	Qifeng Xie , Fuzhou University, China The Mesozoic magmatism and metallogenic mechanism of Zijinshan ore field, Fujian Province
17:20	Junlai Liu , China University of Geosciences (Beijing) The early Cretaceous Jiao-Liao extensional provinces (JLEPs): a link of crustal extension to destruction of the lithosphere keel of the North China craton
17:40	Xiaoping Long , Northwest University, China Mantle contribution and tectonic transition in the Eastern Tianshan, NW China

International Association for Gondwana Research (IAGR) 2017 annual convention and 16th Gondwana International Conference



Northwest University



Opening Ceremony



Conference on the Way



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Xi'an, China Sept 24-28, 2018

GR Editorial Meeting and IAGR Board Meeting



I. Safonova



GR editors

Field excursion



Northwest University: Re isotope room

