

IGCP PROJECT SHORT TITLE: RODINIA ASSEMBLY AND BREAKUP

DURATION AND STATUS: 1999-2003, active

PROJECT LEADERS:

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NAME: **RAPHAEL UNRUG**, Former Project Co-Leader  
(Professor Unrug sadly passed away in July 2000. Two additional co-leaders are nominated below; brief CVs are attached at the end of this report).

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SIGNATURES OF PROJECT LEADERS:

**C. McA. Powell**

**Svetlana Bogdanova**

**Henri Kampunzu**

# 1. Summary of Major Past Achievements of the Project:

The project started its operation in the second quarter of 1999. The rest of that year was devoted to setting up the project structure, and organising scientific symposia on Rodinia. Major achievements during that year were:

## a. Establishment of project structure and acceptance of work plan by project participants

The project structure was presented at the first business meeting in Strasbourg, France at EUG 10 in March 1999. Professors C.McA. Powell and Raphael Unrug were elected leaders, and Dr Z.X. Li was elected as project secretary. The participants at the meeting agreed to the work plan for the rest of 1999 and 2000.

## b. Establishment of working parties

Regional working parties have been established during 1999 and 2000 for the purposes of coordinating regional activities, and compiling regional tectonic maps. These include the working parties for **East Asia, the Grenville Province in Canada, the Grenville–Baltica connections, Nordic (Baltica), and Siberia**. The current IGCP 418 will provide a synthesis of Kibaran events in **southern Africa**. Working parties for Australia and Antarctica are being established.

## c. Establishment of cooperation with other IGCP projects include 368, 411, 418, 419, and 420. There are also plans to hold future joint meetings with IGCP 453.

## d. Organization of 4 scientific meetings in 1999

- **A symposium on Mesoproterozoic Continental Assembly and Subsequent Break-up, and the IGCP 440 first business meeting, during the 10<sup>th</sup> European Union of Geosciences conference, 28 March – 1 April 1999.** At the initial meeting of IGCP 440, at the EUG 10 in Strasbourg, France, 28 March–1 April, Chris Powell and Joachim Jacobs (Bremen, Germany), convened a symposium on "*Mesoproterozoic continental assembly and subsequent break-up*", at which 21 oral and 14 poster papers were presented. A selection of these papers, together with papers from a companion symposium convened by Alfred Kröner, Victor Khain, J.J. Peucat and Vicki Pease, is being edited by Chris Powell and Joe Meert (USA), for publication as a special issue of *Precambrian Research* in the first half of 2001. The IGCP 440 First Business Meeting followed the symposium in the evening. Over 60 people attended the meeting, which was chaired by Professor Powell. The Project Co-leaders and Project Secretary were elected at that meeting, and the structure was discussed.
- **Joint IGCP 418 & 419 meetings in Kitwe, Zambia, July 19–21, with field workshops from July 12–18 (IGCP 418) and July 22–26 (IGCP 419).** Two field excursions and a joint scientific meeting were held jointly by the two closely linked IGCP projects during August 1999 in Kitwe, Zambia. IGCP 440 sponsored one participant from India to this meeting. Professor Powell led a two-hour discussion on IGCP 440 business. It was agreed that IGCP 418/419 participants would form the southern African working group, assembling the material related to IGCP 440, and producing the regional tectonic synthesis to be transmitted to the Rodinia map committee.
- **International Symposium and Field Workshop on *Geodynamic and Tectonic Evolution of China and Related Gondwana Crustal Fragments*, Yichang, 9–20 October.** The symposium and workshops were organised by the Yichang Centre of China Geological Survey, and co-sponsored by IGCP 440, IGCP 368, IGCP 411, and Chinese national organisations. About seventy scientists from Australia, Canada, China (including Hong Kong), Germany, India, Japan, Korea, Malaysia, Sri Lanka, Thailand, United Kingdom, United States of America and Vietnam participated in the two-day symposium and pre- and post-conference field excursions. Papers presented at the symposium covered geological events of all ages in the region and related continents, with focus on events related to the assembly and breakup of Rodinia, the evolution of the Tethys oceans, and Meso- to Cenozoic accretionary history of Asia. The International Association of Gondwana Research published an abstract volume, and a special volume on *Gondwana Research* for full papers and extended abstracts is being organised in 2000.
- **Geological Society of America Annual meeting in Denver, Colorado, USA, 24–28 October 1999.** A full day was allocated to discussion of IGCP 440 at this meeting. This discussion was attended by approximately 50 scientists from Australia, Europe, South America, Asia and North

America, and focused on the best ways to achieve the goals of the project, and the possible composition of the regional and thematic working parties. During the main GSA meeting, a symposium convened by Richard Hanson and Chris Powell on "*The role of supercontinents in earth history: Assembly and dispersal of the Rodinian supercontinent (1300–? 750 Ma), and impacts on the Proterozoic biosphere, hydrosphere and crust-mantle system*", attracted thirteen papers, with a further four papers being presented in a tectonics symposium on "*Igneous, metamorphic, and geochronologic perspectives on continental assembly and breakup*".

**e. Establishment of a Web Home Page for the Project**

<http://www.tsrc.uwa.edu.au/rodinia/index.htm>

## **2. Achievements of the Project This Year (2000):**

### **2.1 General scientific achievements (including social benefits)**

Scientific contributions by participants of the projects are being published in two special issues of *Precambrian Research*, as well as many individual papers in international scientific journals. In a special issue entitled *Neoproterozoic of Australia* (Guest Editor Professor Malcolm R. Walter, Vol. 100, published in March 2000), 17 scientific articles/reviews were devoted to the latest progress in understanding the Neoproterozoic successions in Australia and their global correlations, Neoproterozoic palaeoenvironment, new high-quality palaeomagnetic results from both Australia and China, and implications for Rodinia configuration and breakup. Members of IGCP 440 working in the Tectonics Special Research Centre published three papers in the issue.

A second special issue, co-edited by Professors C.McA. Powell (Project co-leader) and J. Meert, is going through the final stage of editing before going to press. The issue covers papers on the early Neoproterozoic history of Rodinia and its subsequent breakup, especially in Siberia, East Greenland, the East African orogen, Seychelles and NW India, the Congo and adjacent South America.

There were many other important findings reported in papers by participating scientists worldwide (see attached publication list), and a large amount of preliminary results and ideas presented and discussed at scientific meetings co-organised by the Project (see 2.2).

During 2000, we progressed well in developing the legends for the Rodinia maps, with a trial run to be organised by the end of the year.

Many connections have been established between scientists from both developed and developing countries through the project activities, and many have started collaborating on research projects.

### **2.2 List of meetings with approximate attendance and number of countries**

The Project co-organised special sessions/symposia in three major international meetings in 2000:

**a. A special session on "Assembly and Dispersion of Rodinia and Gondwana Supercontinents in Western Pacific" (sessions T31B and 32A) at the AGU Western Pacific Geophysics Meeting, 27–30 June 2000, Tokyo, Japan**

This special session was initiated by IGCP 368, 411 and 440, co-convened by Professor T. Watanabe, Dr. Z.X. Li, Professor M. Yoshida, and Professor S. Lu. It dealt with all aspects related to the assembly and dispersion of the two supercontinents, Rodinia and Gondwanaland, in the western Pacific. Twenty-three papers were presented in the session, many of which are relevant to Rodinia. About 40 people were at the session. The presenters came from seven countries and regions, including Australia, China, Japan, Korea, Russia, Taiwan, and Vietnam.

**b. A special symposium on "Precambrian Supercontinents" at the 15<sup>th</sup> Australian Geological Congress, 3-7 July 2000, Sydney, Australia**

This symposium was sponsored by IGCP 440 and chaired by Professor C.McA. Powell. Eighteen papers were presented at the symposium, with presenters coming from Australia, Britain, Japan, Russia, and the United States of America. Around 120 people attended the symposium.

**c. Sessions at the 31<sup>st</sup> International Geological Congress, 6-16 Aug., 2000, Rio de Janeiro**

The Project sponsored a number of scientists to attend the congress, and had a business meeting during the 31<sup>st</sup> IGC. Scientists attending the Congress came from almost every country in the World. IGCP 440 held a one-day workshop during the meeting to discuss and develop the map legend to be used in the 1: 2 million and 1: 10

million map compilations. Approximately 12 people attended this one-day workshop, including representatives from Australia, Brazil, Canada, Russia, Sweden and USA.

### 2.3 List of most important publications (including maps)

- Arouri, K., Conaghan, P.J., Walter, M. R, Bischoff, G. C., Grey, K., 2000. Reconnaissance sedimentology and hydrocarbon biomarkers of Ediacarian microbial mats and acritarchs, lower Ungoolya Group, Officer Basin. *Precamb. Res.*, 100, 235–281.
- Burrett, C., Berry R., 2000. Proterozoic Australia-Western United States (AUSWUS) fit between Laurentia and Australia. *Geology*, 28, 103–106.
- Calver, C.R., Walter, M.R., 2000. The late Neoproterozoic Grassy Group of King Island, Tasmania: correlation and palaeogeographic significance. *Precamb. Res.*, 100, 299–312.
- Eerola, T. (2000, in press). Neoproterozoic-Cambrian climate changes. In: Riding, R. & Zhuravlev, A (eds.) *Ecology of the Cambrian radiation*.
- Evans, D.A., 2000. Stratigraphic, geochronological, and paleomagnetic constraints upon the Neoproterozoic climatic paradox. *Am. J. Sci.*, 300, 347–433.
- Evans, D.A., Li, Z.X., Kirschvink, J.J., Wingate, M.T.D., 2000. A high-quality mid-Neoproterozoic palaeomagnetic pole from South China, with implications for ice ages, regional stratigraphy, and the breakup configuration of Rodinia. *Precamb. Res.* 100, 313–334.
- Ge, W., Li, X.H., Li, Z.X., Zhou, H., 2000. “Longsheng Ophiolite” in Northern Guangxi revisited. *Acta Petrologica Sinica* 16(1), 111–118 (in Chinese with English abstract).
- Gehling, J.G., 1999. Microbial mats in terminal Proterozoic siliciclastics: Ediacaran death masks. *Palaios*, 14, 40–57.
- Gehling, J.G., 2000. Sequence stratigraphic context of the Ediacara Member, Rawnsley Quartzite, South Australia: a taphonomic window into the Neoproterozoic biosphere. *Precamb. Res.*, 100, 65–95.
- Gehling, J.G., Narbonne. G.M., Anderson, M.M. 2000. The first named Ediacaran body fossil: *Aspidella terranovica* Billings 1872. *Palaeontology* 43, 427–456.
- Gorjan, P., Veevers, J.J., Walter, M.R., 2000. Neoproterozoic sulfur-isotope variation in Australia and global implications. *Precamb. Res.*, 100, 151–179.
- Grey, K., Blake, D.H., 1999. Neoproterozoic (Cryogenian) stromatolites from the Wolfe Basin, east Kimberley, Western Australia: correlation with the Centralian Superbasin. *Aust. J. Earth Sci.*, 46, 329–341.
- Hill, A.C., Cotter, K.L., Grey, K., 2000. Mid-Neoproterozoic biostratigraphy and isotope stratigraphy in Australia. *Precamb. Res.*, 100, 281–298.
- Hill, A.C., Walter, M.R., 2000. Mid-Neoproterozoic (~830–750 Ma) isotope stratigraphy of Australia and global correlation. *Precamb. Res.*, 100, 181–211.
- Li, Z.X., 2000. New palaeomagnetic results from the “cap dolomite” of the Neoproterozoic Walsh Tillite, northwestern Australia. *Precamb. Res.*, 100, 359–370.
- Li, Z.X., 2000. Palaeomagnetic evidence for unification of the North and West Australian Cratons by ca. 1.7 Ga: new results from the Kimberley Basin of northwestern Australia. *Geophys. J. Int.*, 142, 173–180.
- Li, Z.X., Li, X.H., Kinny, P.D., Wang, J., 1999. The breakup of Rodinia: did it start with a mantle plume beneath South China? *Earth Planet. Sci. Lett.*, 173, 171–181.
- Li, Z.X., Powell, C.McA.: Palaeomagnetic study of Neoproterozoic glacial rocks of the Yangtze Block: palaeolatitude and configuration of South China in the late Proterozoic Supercontinent — Discussion. *Precamb. Res.* 94, 1–5, 1999.
- Li, Z.X., Powell, C. McA. (2000, in press). An outline of the Palaeogeographic evolution of the Australasian region since the beginning of the Neoproterozoic. *Earth-Sci. Rev.*
- Pisarevsky, S.A., Li, Z.X., Grey, K., Stevens, M.K. (2000, in press). A palaeomagnetic study of Empress 1A, a stratigraphic drillhole in the Officer Basin: new evidence for the low-latitude position of Australia in the Neoproterozoic. *Precamb. Res.*
- Walter, M.R., Veevers, J.J., Calver, C.R., Gorjan, A P., Hill, C., 2000. Dating the 840–544 Ma Neoproterozoic interval by isotopes of strontium, carbon, and sulfur in seawater, and some interpretative models. *Precamb. Res.*, 100, 371–433.
- Wang, J., Li, Z.X., (2000, in press). Sequence stratigraphy and evolution of the Neoproterozoic marginal basins along southeastern Yangtze Craton, South China. *Gond. Res.*
- Wingate, M.T.D., Campbell, I.H., Harris, L.B., 2000. SHRIMP baddeleyite age for the Fraser Dyke Swarm, southeast Yilgarn Craton, Western Australia. *Aust. J. Earth Sci.*, 47, 309–313.
- Wingate, M.T.D., Giddings, J.W., 2000. Age and palaeomagnetism of the Mundine Well dyke swarm, Western Australia: implications for an Australia–Laurentia connection at 755 Ma. *Precamb. Res.*, 100, 335–357.
- Zhang, S., Li, Z.X., Wu, H., Wang, H, (in press) New paleomagnetic results from the Neoproterozoic successions in southern North China Block and paleogeographic implications. *Science in China*.

## 2.4 List of countries/regions involved in the projects (\* indicates countries where IGCP activities, other than normal research activities, took place this year)

Argentina, Australia\*, Belgium, Botswana, Brazil\*, Canada, China\*, Congo\*, Denmark, Finland, France, Germany, India, Japan\*, Korea\*, Kuwait, Mexico, Mongolia, Namibia, Norway, Russia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, The Netherlands, U.K., USA, Vietnam, Zambia, Zimbabwe.

In 2000, the Chinese National Natural Sciences Foundation granted 3.6 million *yuan* (US\$500,000) to three groups of researchers for conducting Rodinia-related research in China.

## 2.5 Activities involving other IGCP projects or the IUGS

The special session at the AGU Western Pacific Geophysics Meeting in Tokyo was organised jointly with IGCP 368 and 411.

At the 31<sup>st</sup> IGC, papers relevant to IGCP 440 were given in sessions that were jointly organised with IGCP 368, 418 and 419. IGCP 440 also contributed to an IUGS display.

## 2.6 Participation of scientists from developing countries

As shown in section 2.4, IGCP 440 participants are scientists from developed countries as well as developing countries, such as Argentina, Botswana, Brazil, China, India, Kuwait, Mexico, Mongolia, Namibia, South Africa, Sri Lanka, Vietnam, Zambia, and Zimbabwe.

# 3. Proposed activities of the project for the year ahead (2001)

Three possible IGCP 440 field trips were proposed for 2001. After considerable discussion at the business meeting held during the 31<sup>st</sup> IGC, the meeting decided that the main **field symposium** for IGCP 440 in 2001 will be around Irkutsk, on *Proterozoic ophiolite, dyke swarms and sedimentary series of the southern margin of the Siberian craton, Irkutsk, Russia*, to be organised by Professor Sklyarov and colleagues. It was also suggested that the field workshop be moved from the latter half of August to late July-early August, in order not to break up the Northern Hemisphere field season. It will be composed of two week-long field excursions with a two-day indoor symposium between the two. The likely date for the two-week field symposium is 23 July–5 August, with the symposium in Irkutsk on July 29 and 30.

Other activities in 2001 related to IGCP 440:

- (i) Professor Yoshida, co-leader of IGCP 368, is organising a meeting in Osaka, October 26–30, 2001, which is co-sponsored by IGCP 440. A first call for papers and conference registration can be obtained at:  
<http://www.sci.osaka-cu.ac.jp/geos/English/symposium.html>. Over 200 scientists have registered expressions of interest to attend the meeting. Many of them come from developing countries in the Asian-Pacific region. IGCP 440 will sponsor a number of scientists, mostly from developing countries, to attend this meeting.
- (ii) IGCP 418 is organising field activities to examine the Late Mesoproterozoic Namaqua-Natal belt in southern Africa. By mutual agreement with IGCP 440, the IGCP 418 organisers are likely to hold their field workshop over two weeks in mid-July (July 9 to 20), to avoid a clash with the IGCP 440 Siberian field workshop. Many scientists from Africa will participate in this field workshop, and at least one of the IGCP 440 leaders will attend the IGCP 418 field workshop.
- (iii) IGCP 368 is organising a field conference relevant to IGCP 440 between 24 and 27 March 2001 to examine the Pan-African events in the Arabian shield. IGCP 440 has agreed to partially sponsor an African scientist to attend the field symposium.
- (iv) Drs V. Pease and R. Ernst, both major players in IGCP 440, are organising a special session on large igneous provinces, possibly at the 2001 AGU Fall Meeting (e-mail: [vickyp@nem.se](mailto:vickyp@nem.se) and [remst@nrcan.gc.ca](mailto:remst@nrcan.gc.ca)).



#### 4. Project funding requested

Due to the increased activities for 2001 (see section 3), and our intention to sponsor more scientists from developing countries to participate in those activities, we request the project funds for IGCP 440 to be increased from the 2000 level of US\$6,000 to US\$10,000 in 2001.

The \$10,000 budget will be allocated as follows:	US \$
24–27 March 2001: Partial sponsorship of an African Scientist to attend IGCP field conference in Saudi Arabia (already committed)	500
9–20 July 2001: Partial sponsorship of two scientists from developing countries to attend the field workshop on the Late Mesoproterozoic Namaqua–Natal belt in southern Africa co-sponsored by IGCP 418	1,000
23 July–4 Aug 2001: Support for the IGCP 440 field workshop in Irkutsk (This includes direct support for conference activity, plus \$2,500 for partial support of attending scientists from developing countries)	6,000
26–30 October 2001: Support of the joint IGCP 368-IGCP 440 field symposium in Osaka, Japan (\$1,500) for partial support to help scientists from developing countries to attend	2,500
<b>TOTAL Budget Required</b>	<b>10,000</b>

## SCIENTIFIC CURRICULA VITAE OF NEW PROJECT CO-LEADERS

### SVETLANA V. BOGDANOVA

Associate Professor, Dr. Sc. Hab., Geological Institute of Academy of Sciences, Moscow, 1982.

#### Present professional position and responsibilities:

- **(1995–present)** Senior researcher of the Swedish Natural Science Research Council (NFR) at the Department of Geology, Lund University. Main project: “Correlation of the Precambrian crust in Europe and the North Atlantic Realm”. I am international leader of the EUROBRIDGE project, an integrated geophysical-geological study of the structure and formation of Precambrian continental crust along a traverse from Sweden to the Black Sea. EUROBRIDGE is a project of the ESF/ILP - programme EUROPROBE (Chairman Prof. D. G. Gee, Uppsala).

#### Mapping specific projects:

Participation in the compilation and editing of:

- **(1973–1974)** Map of the Metamorphic Belts of the USSR, 1: 4 000 000 (Ed. V.A. Glebovitsky).
- **(1976–1977)** Map of the Faults of the USSR, 1: 2 500 000 (Eds. A.V. Peive & N.A. Belyaevsky).
- **(1975–1979)** "International Tectonic Map of Europe and Adjacent Areas" 2nd edition (UNESCO/IUGS)
- **(1978–1982)** Tectonic Map of Northern Eurasia, 1: 5 000 000 (Eds. A.V. Peive & Y.M. Pushcharovsky).
- **(1986–1996)** Editor and co-author of the 3rd edition of the "International Tectonic Map of Europe and Adjacent Areas", particularly responsible for the Precambrian in the ex-Soviet Union (UNESCO/IUGS).

#### Recent research projects:

- **(1990)** Modelling of the Precambrian of the East European Craton employing particularly P-T-time data and integrated geological-geophysical information; extension of this work to the whole North Atlantic region. Modelling of the Archaean/Proterozoic Belomorian Belt in the White Sea - Kola - Lapland region.
- **(1992)** Elaboration of a new model of the structure and creation of the East European Craton with particular studies of the crystalline basement between the Baltic/Fennoscandian and Ukrainian Shields using geological-geophysical interpretations.
- **(1998)** Studies of Mesoproterozoic anorogenic magmatism in the western part of the East European Craton in connection with shear zones.

#### Recent international and national assignments:

- **(1989–1994)** Member of the international task groups of IGCP-project 275 "Deep Geology of the Baltic/Fennoscandian Shield".
- **(1991–1994)** Leader of the EUROPROBE programme's ACE (Ancient Crust of Europe) thematic group.
- **(1994–1999)** Member of various task groups of IGCP-project COPENA ("North Atlantic Precambrian").
- **(1994–present)** Project Leader of EUROPROBE' project EUROBRIDGE (ESF/ILP).
- **(1996–present)** Member of the NFR Committee for the International Geological Correlation Programme (IGCP).
- **(1997–present)** Co-ordinating guest editor of the TECTONOPHYSICS Special volume on EUROBRIDGE.
- **(2000–present)** Member of the Swedish/Nordic working group on IGCP-440 "Assembly of Rodinia".

#### Publications:

- *ca.* 120 scientific papers, maps, reviews and abstracts in Russian, including the book "The Crust of the Russian Platform in the Early Precambrian" (Nauka Publishers, Moscow, 1986, 224 pp).
- Since 1990 over 60 publications were put out in English. This includes 17 full-size papers in international journals.

#### Selected publications

- Bibikova E. V., Slabunov A. I., **Bogdanova S. V.**, Skiold T., 1999. Early Precambrian tectono-thermal evolution of the Earth crust in the Karelian and Belomorian Provinces of the Baltic Shield: U-Pb isotopic evidence from titanite and rutile. *Geochemistry International* 37:8, 750–764.
- Iosifidi, A. G., **Bogdanova S. V.**, Khramov, A. N., Bylund, G., 1999. Palaeomagnetic study of Palaeoproterozoic granitoids from the Voronezh Massif, Russia. *Geophysical Journal International* 137, 723–731.

- Bogdanova, S. V.**, Pashkevich, I. K., Gorbatshev, R., Orlyuk, M., 1996. Riphean rifting and major Palaeoproterozoic boundaries in the East European Craton: geology and geophysics. *Tectonophysics* 268, 1–22.
- Shchipansky, A. A., **Bogdanova, S. V.** 1996. The Sarmatian crustal segment: Precambrian correlations between the Voronezh Massif and Ukrainian Shield across the Dniepr-Donets Aulacogen. *Tectonophysics* 268, 109–126.
- Bogdanova, S. V.**, 1996. High-grade metamorphism of 2.45-2.4 Ga age in mafic intrusions of the Belomorian Belt in the northeastern Baltic Shield. In: T. Brewer (ed.) *Precambrian Crustal Evolution in the North Atlantic Region*. Geological Society of London, Special Publication 112, 69–90.
- Bibikova; E. V., Skiöld, T., **Bogdanova, S. V.** 1996. Age and geodynamic aspects of the oldest rocks in the Precambrian Belomorian Belt of the Baltic (Fennoscandian) Shield. In: T. Brewer (ed.) *Precambrian Crustal Evolution in the North Atlantic Region*. Geological Society of London, Special Publication 112, 55–68.
- Bibikova E. V., **Bogdanova S. V.**, Claesson S., Gorbatshev R., Kirnozova T. I., 1995. Age, nature and structure of the Precambrian crust in Belarus. *Stratigraphy and Geological Correlation, Interperiodika* 6, 591–601.
- Bogdanova, S. V.**, Bibikova, E. V., Gorbatshev, R., 1994. Palaeoproterozoic U-Pb zircon ages from Belorussia: New tectonic implications for the East European Craton. *Precambrian Research* 68, 231–240.
- Bogdanova, S. V.**, Bibikova S. V., 1993. The "Saamian" of the Belomorian Belt: New geochronological constraints. *Precambrian Research* 64, 131–152.
- Gorbatshev, R., **Bogdanova, S. V.**, 1993. Frontiers in the Baltic Shield. *Precambrian Research* 64, 3–22.
- Bogdanova, S. V.** 1993. The three-segment hypothesis for the East European Craton. *Abstr. of EUG VII, Strasbourg, 4-8 April, 1993, Terra Nova, Abstracts* 5:1, 313.
- Bogdanova S. V.**, 1986. *The Earth's Crust of the Russian Platform in the Early Precambrian (as exemplified by the Volga-Uralian crustal segment)*. Nauka, Moscow, 224 pp. (in Russian).

## A.B.H. KAMPUNZU

Professor, DSc., University of Lubumbashi (Congo – DRC), 1981.

### Professional positions and expertise:

- (1995–present) Professor, University of Botswana.
- (1988–1995) Professor, University of Lubumbashi, Congo.
- (1976–1988) Progressed from Lecturer to Professor, University of Lubumbashi, Congo.
- (1989–1991) Expert for Katangan lithostratigraphy in the Copperbelt of Congo and Zambia. Funding from mining industry (Gecamines-ZCCM) and from UNESCO- Programme Geology for Economic Development.
- (1983–1985; 1986–1988) Under contract Professeur “Associé”, University of Aix-Marseille III, Saint-Jérôme, Marseille, France.
- (1990) Expert on the investigation of the structural evolution of lakes Albert and Edward, Uganda – Congo. Funding from National Science Foundation (USA) and FINA Exploration (UK).
- (1997) Consultant for Anglo-American on the evaluation of Cu-Co resource potential of AAC prospects in western Zambia.
- (1998) Consultant for BHP Mineral Exploration Company: Evaluation of mineral resource potential of Congo.

### National and international associations:

- **UNESCO Consultative Committee for Geology and Economic Development:** Chairman (1985-1993).
- **Botswana Geoscientists Association:** President, Executive Committee, (1998-2000).
- **UNESCO-IUGS-IGCP:** Past-member of the IGCP Scientific Board and Leader of IGCP 227.
- **Geological Society of Africa (GSAf):** Currently Vice-President.
- **International Commission of Earth Sciences in Africa (ICESA):** Currently Chairman of this Commission of ILP (International Lithosphere Programme) and IASPEI (International Association of Seismology and Physics of Earth Interior).
- **IUGS Gondwana Commission:** Member (1998-present).

### Editorial boards:

- **Regional Editor, Africa, Gondwana Research,** Official Journal of the International Association for Gondwana Research, since 1998.
- **Associate Editor, Africa, Episodes,** Official Journal of the International Union of the Geological Sciences, since 1998.
- **Regional Editor, Africa, Chronicle of Mineral Research and Exploration,** Bureau of Mining and Geological Research/B.R.G.M., France, since 1998.
- **Member of the Editorial Board of South African Journal of Geology,** since June 2000.

### Research projects, African Geology and Mapping:

- Familiarity with the geology of 32 African countries, having undertaken research projects related to 26 countries.
- Experience in Archaean, Proterozoic and Phanerozoic units.
- Fields of study include petrology and geochemistry of igneous and sedimentary rocks, lithostratigraphy, structural geology, geochronology, ore geology and geotectonic setting reconstructions.
- Main research topic has been the Proterozoic belts of central, eastern and southern Africa and implications for Rodinia dispersal and Gondwana assembly.
- Mapping the Kibaran belt in Congo-DRC (1/50 000; 1/125 000 and 1/250 000).
- Compilation of the map of the central African Copperbelt at the scale of 1/ 1 000 000 for the production of the Atlas of Lubumbashi in Katanga (published in France).
- Currently, involved with the compilation of the Map of the Kibaran Orogenic System of Africa as a contribution to IGCP 440.

### Publications:

#### *Books and special issues*

**Kampunzu A.B.,** Lubala R.T. (Editors) 1991 - Magmatism in Extensional Structural Settings. The Phanerozoic African Plate. Springer Verlag, Heidelberg, W.Germany, 637 p.

**Kampunzu A. B.**, Lubala R.T. (Guest Editors) 1994 - Neoproterozoic belts of Zambia, Zaire and Namibia. Special Issue, *Journal of African Earth Sciences*. Pergamon Press (England), 19:4, 247–345.

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