



International Conference

MINERAL DEPOSITS OF CONTINENTAL SHELVES

and

IGCP- 464 CONTINENTAL SHELVES DURING THE LAST GLACIAL CYCLE - FIFTH (FINAL) ANNUAL CONFERENCE

May 30–June 05. 2005, St. Petersburg Russia

RUSSIAN ACADEMY OF SCIENCES

Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry (IGEM)
Geological Institute (GIN RAS)

MINISTRY OF NATURAL RESOURCES OF RUSSIAN FEDERATION

All-Russian Geology and Mineral Resources of the World Ocean (VNIIOKEANGEOLGIA)

UNESCO-IUGS - INTERNATIONAL GEOSCIENCE PROGRAM

RUSSIAN NATIONAL COMMITTEE FOR INTERNATIONAL GEOSCIENCE PROGRAM

IGCP464 project aims to define the palaeoenvironmental evolution of the continental shelves, particularly leading into and since the Last Glacial Maximum. This will include the processes that have produced the present morphology, stratigraphy and sedimentology. Applied aspects dealt with the project are geotechnical and engineering properties of continental shelf sediment, neotectonic and environmental studies, the identification of the cultural heritage of palaeoenvironmental changes of shelves and the occurrence of mineral deposits that is the special (but not exclusive) focus of the Fifth Annual Conference

In fact continental shelves, including the Late Cenozoic shelves, are rich in many types of mineral deposit including sands and gravels, gold, tin, amber, heavy minerals, phosphorites, ferromanganese crusts, coquina and so on. Their distribution and mode of formation of these deposits are closely related to the Late Cenozoic geological history of the shelves, including events of the Last Glacial Cycle. The main aim of the conference will be to discuss problems of ore formation on shelves in the context of the geological history of the shelves, the tectonic setting, lithogenesis during the last stages of evolution and environmental consequences of exploration and mining these deposits. Conference organizers expect that the meeting will contribute to a wide-ranging exchange on the nature and development of mineral resources on continental shelves.

ORGANIZING COMMITTEE

Honorary Chairman: *academician Yury M. Pushchrovsky*

Chairman: **George A. Cherkashev (VNIIOkeangeologia, Russia)** cherkashov@vniio.ru

Co-chairman : **Natalia G. Patyk-Kara (IGEM RAS, Russia)** pkara@igem.ru

Topics suggested:

MINERAL DEPOSITS OF CONTINENTAL SHELVES

- Evolution of continental shelves during the Last Glacial Cycle and its influence on the formation of mineral deposits
- Detrital submarine mineral deposits (sands and gravels, marine placers) on continental shelves.
- Biogenic and chemogenic mineral deposits on continental shelves.
- Large and super-large mineral deposits on continental shelves.
- Methods of prospecting, exploration, evaluation and mining of mineral deposits on continental shelves.

IGCP464 GENERAL SESSION

- Depth of the eustatic minimum: position of sea level at the LGM, similarities and differences among tidal/non tidal, high/low wave energy, tropical/temperate/periglacial shelves.
- Palaeogeography: formation of continental land-bridges, narrowing or closure of straits and seaways, changes to littoral dynamics, sea/land ratio, etc.
- Palaeoclimate: indications on palaeo-rainfall/paleohydrology (i.e. why river courses did not cut incised valleys down to the LGM sea-level depth?), palaeo-wave climate (i.e. why lowstand deposits are more redistributed along the coast than transgressive and highstand deposits), palaeoconditions on high- and low-latitude shelves (i.e. water temperature and coral reefs, palaeomonsoon, de-glaciation patterns), palaeo-morphology (i.e. shelf morphology evolution during sea level fall, lowstand and rise)
- Stratigraphy: possible definition of a sea-level fall/lowstand limit, application of sequence-stratigraphic concepts to the last eustatic cycle, is the actualism applicable to continental shelf study?
- Heritage on human culture: witnesses of environmental changes and shelf narrowing on human pre-history (disappearance of flat coastal areas suitable for cultural/population transigrations, constant flooding situation, abrupt sea-level rise in enclosed basins such as the Black Sea)
- Applications: Carbon Cycle, control on global climate, coastline changes controlling sediment re-distribution, neotectonics, hydrogeological indications, long-term littoral budget, engineering geology, coastal management.

During this fourth Conference of the IGCP 464, besides the presentation of scientific contributions other aspects will be held in the business meetings as the final set-up of the book(s) and the possibility of a follow-up project.

MAIN DATES & DEADLINES:

- Registration Form before 31 January, 2005
- Abstracts - 1 April, 2005
- Distribution of the Program with the list of participants and Invitations – after 1 March, 2005

PRE- and POST-CONFERENCE FIELD EXCURSIONS:

Pre-conference: (A) Two-days (28-29 May) trip by ship to Ladoga Lake and Valaam Island and Monastery. Preliminary estimated cost is about 100 euros..

Post-conference: (B) Three-four-days (4-7 June) field excursion in Kola Peninsula – Tersky Bereg (Coast), Apatity city (Kola Scientific Centre) and Apatity Mining-Chemical Plant. Preliminary estimated cost 230-250 US \$ (185-200 euros)..

Please, inform if your wish to join the excursions, to finalise conditions and costs.

REGISTRATION FEE:

Euro –200. Students – Euro 50. Accompanying persons – Euro 100.

Registration fee includes abstract volume, local transportation, participation in icebreaker and banquet, coffee breaks.

A limited amount of sponsorship for participation may be available.

METHOD OF PAYMENT: Payment details will be specified later.

ACCOMMODATION will be in comfortable hotels about five minutes walk from Conference site (“Matiss’s House”). The price for the ** and *** hotel including breakfast, ca.: Double 20-40 Euros; Single – 50-60 Euros. Prices will be defined.

Hotel reservation will be made by the Organizing Committee, according to your request.

PRESENTATIONS:

- Oral (15 min.)
- Posters
- Exhibits/ demonstrations

CALL FOR PAPERS:

The length of the abstract must not exceed **three A4 pages** (including tables, figures and references). All the abstracts will be collected in a volume which will be distributed to all registered participants at the Conference. CD-ROM copies will be available for separate fee.

Deadline for camera-ready abstracts submission – **before 1 April, 2005.**

The abstract should be written in English and be typed in a box of 16 X 24 cm according the following guidelines:

- font: Times; left margin - 2cm, right - 3 cm, upper - 2 cm, lower - 3 cm
- title: **BOLD**, 12 pt, Capital letters only for title , in centre;
- authors: **bold**, 12 pt, in centre
- addresses : 11 pt, *institution, affiliation, address, postal code and _ity, country, e-mail*, in the centre
- text block: single spaced, justified, 11 pt, indent each paragraph 0,5 cm.
- distance between title and authors names - 1 line, between authors names and addresses - 1 line, between addresses and text - 2 lines
- mark numbers of pages by pencil, if necessary
- figures should be sent separately in JPG or JPEG format

Example:**PROSPECTING CRITERIA OF SHELF MINERAL DEPOSITS**

Peter Burg¹, **Petro Grad**²

¹- *Geodream, Central Idleness Academy, Joke str., 1, Humorville, 1000000, Hahallandia, e - mail: pb@nn.ss.ha*

²- *Geocrushlab, Ministry of Unknown Affairs, Sad str.,2, Stonegrad, 20000, Nuilandia, e-mail: pg@sk.uk.nu*

If to assume that we are children of Nature – look inside – prospecting criteria are within us [1,2].

References (not more than 10)

1.Burg, P. 2001.My lost years in geology // Psychology in geology. Vol. 1. part V. pp. 1-20.

IMMIGRATION AND VISA REQUIREMENTS:

In order to obtain a visa for entry into Russia you will need an "Official Invitation" to the conference. Invitations will be sent to everyone (including accompanying persons) who will submit the Registration Form, all the necessary details will be asked for on this form. You will then be able to apply for visa to your nearest Russian embassy/consulate.

ARRIVAL IN ST.PETERSBURG is possible by airplane (to airport "Pulkovo-2"), by train, by ship, and by bus. Participants will be met upon arrival provided that we have details of your arrival time and place.

Registration Place:

“VNIIOkeangeologia”

Anglyisky Prosp.,1

190121, St.-Petersburg

Russia

ST.-PETERSBURG

was founded in 1703 by Peter the Great to provide Russia with close connections to Western Europe. During two centuries of life as Russia's capital, a wide variety of treasures, both cultural and historical, accumulated. Since 1922 St.Petersburg has been Russia's second city. The attractions of St.Petersburg include numerous parks, architectural monuments and art treasures.

Apart from the scientific program, a rich **cultural program** including sightseeing in St. Petersburg and its surrounding area plus 1-2 day-post-congress field excursions are planned.

CULTURAL PROGRAM - Optional tours to:

I – Hermitage, Russian Museum;

II – Petrodvorets - city of fountains and summer residence of Russian Tzars.

III – Pavlosk – Summer residence of Paul I

IV – Excursion around Neva River by ship

V – Kronstadt - city – fortress in Gulf of Finland

VI – Souvenir markets and shopping sites

VII– Evening St.Petersburg with visit to bar

VIII – Stroganovsky Palace (19th Century architectural ensemble)

IX – Menshikovsky Palace (18th Century architectural ensemble)

X – Mariinsky Ballet and Opera Theatre

A special cultural program may be organized for accompanying persons.

REGISTRATION FORM:

Please note, that official invitation is based on data listed below!

NAME_* _____ FIRST NAMES (as in passport) _____ SEX F M

DATE OF BIRTH _____

PARTICIPANT: _____ ACCOMPANIED PERSON: _____ STUDENT: _____

ORGANIZATION: _____

POSITION: _____

ADDRESS: STREET: _____

CITY: _____ COUNTRY: _____

POSTCODE: _____

TEL.: _____ FAX.: _____

E-MAIL: _____

PASSPORT NUMBER: _____

DATE OF ISSUE: _____ EXPIRY: _____

PLACE OF ISSUE: _____

CITIZENSHIP: _____

NEAREST RUSSIAN EMBASSY OR CONSULATE WHERE YOU ARE GOING TO RECEIVE VISA: _____

PHONE: _____ FAX: _____ E-MAIL: _____

TITLE OF MY PRESENTATION:

ORAL: _____ POSTER: _____

I WOULD LIKE TO PARTICIPATE IN FIELD EXCURSION(s): (A) _____
(B) _____ (C) _____

OTHER CONSIDERATIONS:

GENERAL QUESTIONS:

Dr. George A. Cherkashov (VNIIOkeangeologia, St-Petersburg), as a Chairman,
cherkshov@vniio.ru

Prof. Natalia G. Patyk-Kara (IGEM RAS, Moscow), as a Vice Chairperson of the
Organizing Committee, Fax: (7-095) 230 2179, e-mail: pkara@igem.ru

Dr. Alexandr N. Smirnov (VNIIOkeangeologia, St-Petersburg), Fax: (7-812) 114 1470,
e-mail: shelf-minerals@mail.ru