



2014 Meeting Report Form

Project Number and Title: IGCP 610 "From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary"

MEETING 1:

Title: IGCP 610 Field School (Master Class) for young researchers "Complex study of Quaternary deposits of the Caspian region."

Date: 20-30 May 2014

Place: Kalmykia, Russia

Itinerary:

20 May: Arrival in Malye Derbety and Registration (accommodation in Malye Derbety)

21 May: Lectures by teachers of School (accommodation in Malye Derbety)

22 May: Field lesson 1. Valley of river Gryaznaya at the settlement of Tundutovo. Description of sections, sampling for different types of analysis.

23 May: Field lesson 2. Valley of river Gryaznaya in the foothills of Yergeni Hills. Analysis of a geomorphological situation. Comparative analysis of sections. Sampling.

24 May: Field lesson 3. Valley of river Yalmata. Analysis of a geomorphological situation, studying of river terraces. Studying of sections. Sampling.

25 May: Seminar lesson. Analysis of the selected samples.

26 May: Field lesson 4. Valley of the river Arshan-Zelmen. Study of a structure of the Khvalynian terraces. Sampling. 27 May: Seminar lesson. Analysis of the selected samples. Popular lecture for students and teachers of College in Malye Derbety.

28 May: Field excursion 5 to the valley of the Volga River. Comparative analysis of sections. Geomorphological analysis of the valley of the Volga River. An arrangement in field camp on the bank of the Akhtuba River at v. Srednyaya Akhtuba.

29 May: Field lesson 6. Valley of the Akhtuba River. Study of a basic section of the Caspian Pleistocene Srednyaya Akhtuba. Summing up School. 30 May: Historical excursion in Volgograd to Mamayev Kurgan. Departure.

MEETING 2:

Title: The Second Plenary Meeting and Field Trip

Date: 12-20 October 2014

Place: Baku, Azerbaijan

Itinerary:

12 October: Arrival and Registration (overnight accommodation in Baku).

13-14 October: Plenary Sessions (overnight accommodation in Baku).

15 October: Field Trip 1. Excursion to Old City: the Maiden Tower and Shirvan Shakh Palace.

Exposures of Absheronian stage sediments. The Garagush mountain, The Bakinskies Ushi (overnight accommodation in Baku).

16 October: Field Trip 2. Stratotype of the Mountain of Bakinian stage, examples of the rapid Caspian Sea level changes in the Pleistocene successions. Archaeological reserve "Gobustan." Mud volcano Dashgil (overnight accommodations in Baku).

17 October: Field Trip 3. Western Azerbaijan and Greater Caucasus. Continuous outcrop of the

Quaternary continental sediments of Ajinour (outcrop of Padar "windows"). Excursion to the historical village Lagich (overnight accommodations in the historical village Lagich).

18 October: Field Trip 4. The First Christian church in the Caucasus, I century. Khan palace in the

historical town of Sheki. Historical museum in Sheki. Western Azerbaijan. Reference outcrop of the marine Baku stage sediments Bozdag (overnight accommodations in the maintain resort Gabala).

19 October: Field Trip 5. Archaeological sites: excavations of ancient towns Selbir and Gala, I-XVIII centuries. Archaeological museum in Gabala (overnight accommodations in Baku for those who depart to respective countries on October 21).

20-21 October: Departure from Baku to respective countries

SCOPE AND ACHIEVEMENTS OF MEETING 1:

Scope of Meeting 1 (program or outline of geological study)

The Field School (Master class) "Complex Study of Quaternary Deposits of the Caspian Region" was carried out by IGCP 610 Working Group 8 "Paleogeography and Paleoenvironment." The main goal of the Field School was to train young researchers from developing countries in advanced methodology and state-of-the-art interpretation of field data exemplified by the classic geological sequences of the Caspian region. Organizers: Prof. T. Yanina, Prof. V. Yanko, Dr. E. Badyukova. Number of young researchers and students: 20.

Teachers of the Master class: Prof. A. Svitoch (description of the sections, lithological and facies methods, complex paleogeographical interpretation of sections); Prof. T. Yanina (macrofaunistic and microfaunistic methods, popular lectures); Dr. Badyukova (geomorphological method); Prof. N. Bolikhovskaya (palynological methods, analyses of loess and soil formation); Prof. V. Bolshakov (magnetic and paleomagnetic analyses, geochronological methods).

Initially the Field School was planned for the end of August 2014, but it was urgently pushed forward to an earlier period (May) due to climatic forecasts that predicted an excessively hot summer. To work in such weather conditions in Kalmykia would represent a risk to the health of participants.

Achievements of Meeting 1

Training the young researchers from developing countries in advanced methodology and state-of-the-art interpretation of field data exemplified by the classic geological sequences of the Caspian region. Popularizing the history of the Caspian Sea conducted for students of the college and other young people from Kalmykia in the village Malye Derbety.

Outcome of Meeting 1

1. Information on the event and expressions of gratitude to the director of the College, Dr. N. Dundukov for assistance was published in the newspaper of Kalmykia.
2. Twenty young researchers from developing countries obtained an extensive training in advanced methodology and state-of-the-art interpretation of field data exemplified by the classic geological sequences of the Caspian region.
3. The history of the Caspian Sea was popularized among students, young researchers and wide public of the Kalmykia.

SCOPE AND ACHIEVEMENTS OF MEETING 2:

Scope of Meeting 2 (program or outline of geological study)

The Second Plenary Meeting and Field Trip was organized by the Institute of Geology and Geophysics of the Azerbaijan National Academy of Sciences (www.gia.az) and the Avalon Institute of Applied Science, Winnipeg, Canada, and hosted by the Institute of Geology and Geophysics. The Abstract Volume and the Field Trip Guide for this meeting will be sent to the IGCP Secretariat by post. The Programme of the meeting is available at http://avalon-institute.org/IGCP610/meeting_next.php and is also attached to this report (Appendix 1). About 90 people from 11 countries participated in the meeting. The list of students and young researchers is provided in Annex 1.

The meeting was focused on the whole spectrum of Quaternary geological sequences exposed in the terraces and ridges of the Caspian region. This includes the stratotype of the Mountain of Bakinian stage (ca. 600–450 k BP) located in the suburbs of Baku on the Absheronian Peninsula; major exposures in the southwestern part of the peninsula of Garagush mountain, Bakinskies Ushi.

This includes outcrops of Quaternary deposits at Garamaryam and Turianchay in the Ajinour region, and Bozdag located in the Middle Kura region, which is a reference section of the marine sediments of the Bakinian stage in western Azerbaijan. The Neogene-Quaternary boundary as well as the Matuyama-Brunhes Reversal with Olduvan and Jaramillo episodes were traced.

The archaeological sites in Gobustan with its famous petroglyphs of Mesolithic age were observed. Plans included visits to some archaeological and historical places in Baku: the Shirvanshakh Palace constructed during the period from the XIIIth to the XVIth century; the Maiden Tower (the most mysterious monument of Baku) of which the unique construction has no analogs in the East. The Palace complex and Maiden Tower are included in the UNESCO list of World heritage sites.

We also visited the historical-cultural reserve of Lagich that dates from the XV-XIX centuries, the first Christian Church in the Caucasus dated to the Ist century, excavations of an ancient town located in the suburbs of Gabala city, which for six centuries (until the VIth century) was the capital of Caucasian Albania, and famous for the beautiful wall paintings of Khan Palace in the old Sheki town.

Achievements of Meeting 2

The Second Plenary Meeting and Field Trip made the following possible for the participants: (1) To discuss the actual status of our knowledge of a range of subjects, as well as scientific approaches to integrating environmental, anthropological, ethnological, and archaeological data in order to trace the history of ancient humans from the Caspian to Mediterranean during the duration of the Quaternary. (2) Introduce young scientists, especially from the Eastern countries, to new analytical techniques and state-of-the-art interpretation of data. (3)

Encourage east-west dialogue and integrate researchers from different countries into the international R&D community, as well as contribute to the preservation of cultural and religious heritage through the discussion of ancient cultures, civilizations, and their legends.

The two days of Technical Sessions were organized into five panels and five Oral/Poster sessions. Panel 1 was titled “RECENT ECOSYSTEMS AND PROCESSES”—moderators: Nelly Sergeeva (Russia) and Valentina Yanko-Hombach (Ukraine, Canada)—and included five ORAL presentations. The presentations covered a range of topics on recent environments and ecosystems of the Caspian-Black Sea-Mediterranean Corridors. Panel 2 was titled “STRATIGRAPHY, PALEONTOLOGY, AND PALEOENVIRONMENTAL RECONSTRUCTIONS”—moderators: Nikolay Panin (Romania) and Andrey Chepalyga (Russia) —and included 19 ORAL presentations with a key-note talk by Profs. Yanina and Svitoch (Russia). The presentations covered a range of topics on Quaternary ecostratigraphy and paleogeographic reconstructions of the Ponto-Caspian and Marmara region. Panel 3 was titled “TECTONICS”—moderator: Hayrettin Koral (Turkey)—and included three presentations on the earthquake of Eastern Turkey, interrelationships between sea-level changes and tectonics in the southern Black Sea coasts of Turkey, and modern active tectonics in Azerbaijan. Panel 4 was titled “MODELLING”—moderators: Nikolay Esin and Alexander Kislov (Russia)—and included five presentations devoted to modeling of coastline migration, climate change and infilling of the Black Sea by Mediterranean salt water over the course of the Holocene transgression. Panel 5 was titled “ARCHAEOLOGY, HISTORY, AND ETHNOLOGY” —moderators: Andrey Chepalyga (Russia) and Olena Smyntyna (Ukraine)—and included five presentations with a key-note talk by I. Babaev (Azerbaijan). The presentations were devoted to the North Black Sea passageway for the first peopling of Europe, ties between Southeast Caucasus and Mediterranean countries in antiquity, influence of paleoecological changes on migration and economic activities of the Neolithic people of Azerbaijan, and archaeological landscape of Gobustan at the end of the upper Pleistocene and early Holocene.

The POSTER session included 23 poster presentations that were organized into five topics: GEOMORPHOLOGY—moderator: Ekaterina Badyukova (Russia); RECENT ECOSYSTEMS AND ENVIRONMENTAL MONITORING—moderators: Nelly Sergeeva (Russia) and Valentina Yanko-Hombach (Ukraine, Canada); SEA LEVEL CHANGES AND PALEOENVIRONMENTAL RECONSTRUCTIONS—moderators: Nikolay Panin (Romania) and Andrey Chepalyga (Russia); PALYNOLOGY AND PALEONTOLOGY—moderators: Petra Mudie (Canada) and Valentina Yanko-Hombach (Ukraine, Canada); ARCHAEOLOGY, HISTORY, AND ETHNOLOGY—moderators: Mehmet Özdoğan (Turkey) and Olena Smyntyna (Ukraine).

The Technical Sessions were followed by the Round Table that enabled participants to discuss the progress of IGCP 610 and to plan future strategy in running the project. For more details see Conference Programme.

The five days of field trips (by bus) were led by prominent Azerbaijani geologists and archaeologists and were focused on the Apsheronian stage sediments, the classic stratotype of the Mountain of Bakinian stage, examples of the rapid Caspian Sea level changes in the Pleistocene successions, Azerbaijan mud volcanoes, Western Azerbaijan and the Greater Caucasus continuous outcrop of Quaternary continental sediments of the Ajinour, reference outcrop of the marine Bakinian sediments at Bozdag, as well as archaeological sites of Gobustan, Gabala, and historical sites of Baku and Lagich (Fig. 1). For more information see the Field Trip Guide and reference to it.

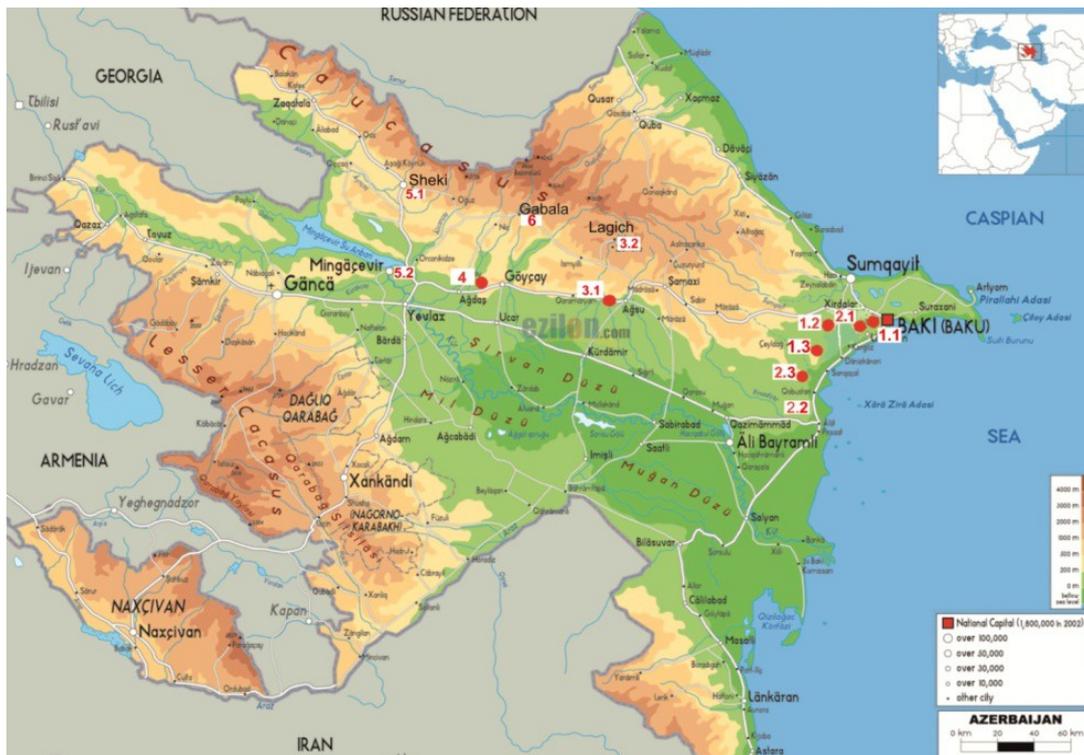


Figure 1. Map of Azerbaijan with geological and archaeological sites visited during the Field Trips on October 15 (# 1), 16 (# 2), 17 (# 3), 18 (# 4), 19 (#5), and 20 (#6), 2014.

Outcome of Meeting 2

1. The 186-page Proceedings of the Second Plenary Meeting contain contributions from 124 scientists from two continents and eighteen countries; 71% of the contributors were from developing countries (Fig. 2).

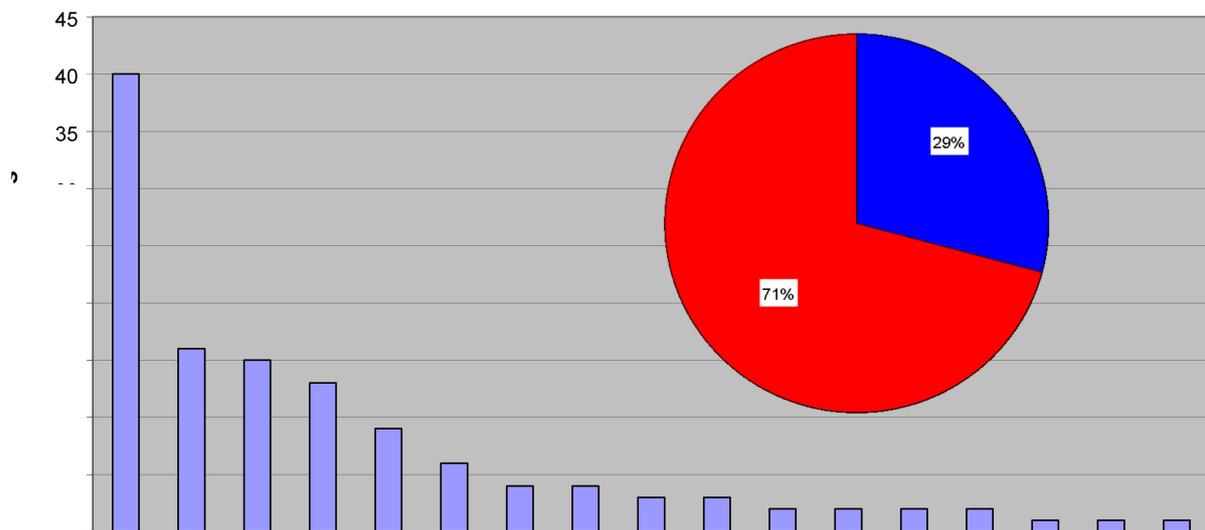


Figure 2. Number of countries and contributors to IGCP 610 Second Plenary Conference and Field Trips. The circle shows the percentage of scientists from developing (red) and developed

(blue) countries, respectively.

2. The 34-page Field Trip Guide describing the Azerbaijan Quaternary geology and geological and archaeological sites to be visited during the Field Trip.

3. Special Volume of *Quaternary International* that will collect selected articles presented at the meeting. It is planned for publication within the 2015 volume.

4. Broadcast of IGCP 610 by nine media sources (see below their URLs).

<http://www.azerbaijan-news.az/index.php?mod=3&id=51131>

<http://www.itv.az/en/sport/beynaelkhalg-zheolozhiya-elmlaeri-program-n-n-610-sayli-layihasi-ilae>;

<http://www.science.az/az/index.php?id=7696>

http://azertag.az/xeber/Bakida_Beynelxalq_Geologiya_Elmleri_Proqraminin_610_sayli_layih_esinin_ikinci_plenar_iclasi_ishine_bashlayib-802193

<http://sia.az/az/news/social/436584-araliq-denizinden-xezeredek-erazilerin-geoloji-tarixi-muzakire-edilir>

<http://teleqraf.com/news/26171>

<http://publika.az/site/p/46747>

<http://www.arxiv.az/az/azertag.az/21793000/Bakida+>

<http://www.arxiv.az/az/azertag.az/21793000/Bakida+%E2%80%9CBeynelxalq+Geologiya+Elmleri+Proqraminin+610+sayli+layihesi>

<http://www.arxiv.az/az/azertag.az/21793000/Bakida+%E2%80%9CDnin+ikinci+plenar+iclasi+ishine+bashlayib>

<http://topnews.az/news/755360/Bakida-Beynelxalq-Geologiya-Elmleri-Proqraminin-610-sayli-layihasinin-ikinci-plenar-iclasi-ishine-bashlayib.html>

5. Preparation of a number of video films and photo galleries (devoted to the Second Plenary Meeting and Field Trip of IGCP 610 (e.g., <https://www.facebook.com/media/set/?set=oa.241497582675250&type=1>).

Overall, the meeting provided an excellent opportunity for international discussion of different methods and interpretations used to analyze the history of a huge geographical area from the Caspian to Mediterranean during the full duration of the Quaternary. It encouraged an exchange of data and publications, as well as encouraged future collaboration between physical and social scientists over the Globe. The meeting brought together multidisciplinary scientists from all over the world (Fig. 3), and in the process enhanced West-East scientific dialogue by providing a supportive background for collaboration regarding the correlation and integration of discoveries on the influence of climatically/tectonically induced sea-level changes and coastline migration on humanity.



Figure 3. Group photo from the IGCP 610 Second Plenary Meeting and Field Trip, Institute of Geology and Geophysics of the Azerbaijan Academy of Sciences, Baku, Azerbaijan, 2014.

Annex 1. List of young scientists and students who participated in IGCP 610 Second Plenary Meeting and Field Trip, 12-20 October 2014, Baku, Azerbaijan.

1. No	Surname/Initials	Country
2.	Alizade E.K.	Azerbaijan
3.	Amrakhov R.	Azerbaijan
4.	Aytaç, A.	Turkey
5.	Büyükmeriç Y.	Turkey
6.	Garyagdi S.	Azerbaijan
7.	Hamidova Z.	Azerbaijan
8.	Kerimova N.	Azerbaijan
9.	Khomchenko D.	Russia
10.	Kondaryuk T.	Ukraine
11.	Kurbanov R.N.	Russia
12.	Laermanns H.	Germany
13.	Makshaev R.	Russia
14.	Mammadov I.R.	Azerbaijan
15.	Mammadov, S,	Azerbaijan
16.	Mammadova A.	Azerbaijan
17.	Mammadova M.	Azerbaijan
18.	Rashidov T.M.	Azerbaijan
19.	Richards K.	UK

20.	Shiraliyeva S.	Azerbaijan
21.	Tarikhazer S.A.	Azerbaijan

* In bold female participants.

Co-Leader

Prof. Dr. Valentina YANKO-HOMBACH

Co-Leader

Prof. Dr. Tamara YANINA

11 December 2014

Signature of Project Leader and Date