NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF ARMENIA
INSTITUTE OF GEOLOGICAL SCIENCES

International Symposium on

"Loess Deposits as Archives of Environmental Change in the Past"

September 15-22, 2019

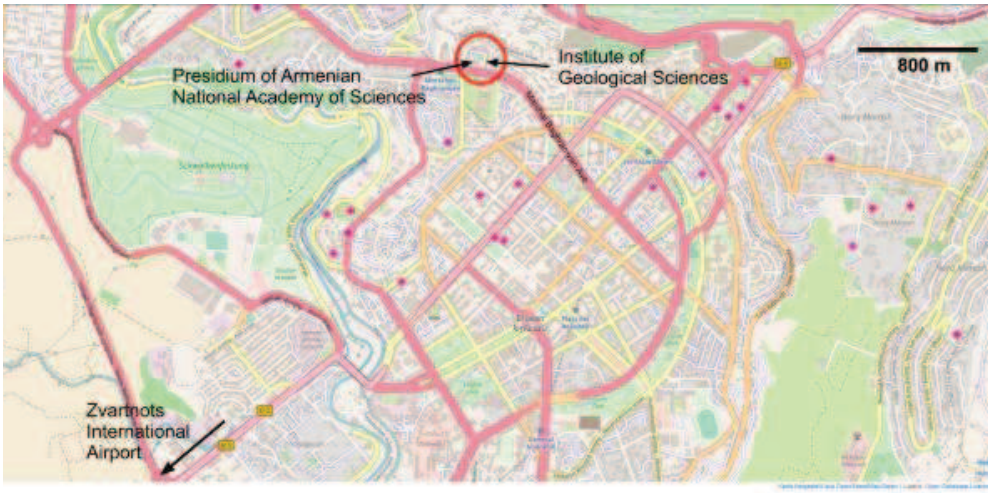
Yerevan (Armenia)

Base Metals

Ministry of Education, Science, Culture and Sport
Committee of science

CONFERENCE VENUE

The Armenian National Academy of Sciences is easy to reach: 0019 Yerevan, 24 Marshal Baghramyan Avenue.




Round Hall of the Presidium of the Armenian National Academy of Sciences

CONFERENCE PROGRAM

Sunday,	**September 15, 2019**
18:00	**Icebreaker and Registration**
	Icebreaker will be organized in the evening in the Geological Museum of the Institute of Geological Sciences of NAS RA, Yerevan, 24a Marshal Baghramyan Avenue
Montag,	**September 16, 2019**
09:00 - 9:10	**Opening and Welcome address by Director of IGS, Dr. Sci. Kh. Meliksetian**
09:00 - 9:40	**Introduction Dominik Faust & Markus Fuchs**
09:40 – 11:00	**Session I – Loess records - Stratigraphy and palaeoenvironmental information** **Chairperson: Pierre Antoine**
09:40 – 10:00	***Jary Z.**, Krawczyk M., Raczyk J., Skurzyński J.* Abrupt cold and warm events recorded in last glacial loess in Poland and Western Ukraine.
10:00 – 10:20	***Pötter St.**, Bösken J., Obreht I., Veres D., Hambach U., Scheidt S., Berg S., Klasen N., Lehmkuhl F.* Towards a regional palaeoclimatic synopsis of the last glacial cycle in the Eastern lower Danube basin – a comparative study of the key sites Vlasca and Balta Alba Kurgan.
10:20 – 10:40	***Stevens T.**, Orbe R., Bradak B., Sechi D., Andreucci S., Cossu G., Smalley I., Pascucci V* Loess on the edge of Europe: chronological and climate proxy analysis of Pegwell Bay loess, SE England.
10:40 – 11:00	***Flašarová K.**, Lauer T., Žatecká M., Trubač J., Strouhalová B., Kadlec J., Kolařík P.* Multiproxy evidence of Middle and Late Pleistocene environmental changes in the loess-paleosol sequences of Central Bohemia (Czech Republic).
11:00 – 11:30	**Coffee break**

11:30 – 12:50	**Session II – Loess records - Stratigraphy and palaeoenvironmental information** **Chairperson: Thomas Stevens**
11:30 – 11:50	***Gerasimenko N.*** The upper Middle Pleistocene loess-palaeosol successions in Central Ukraine
11:50 – 12:10	*Raphael S.,* ***Wolpert T.****, Pappusch M., Profe J., Murari M., Lomax J., Fuchs M.* Extending The Central German loess stratigraphy: new results from the Münzenberg section (Middle Hesse, Germany).
12:10 – 12:30	***Antoine P.****, Lagroix F., Jordanova D., Jordanova N., Lomax J., Fuchs M., Rousseau D.-D., Hatte C., Moine O.* Multiproxy approach of a unique Late Saalian (MIS 6) loess record in the Lower Danube at Harletz (Bulgaria).
12:30 – 12:50	***Ghafarpour A.****, Khormali F., Cheng L., Song Y., Forman S.* Pedogenic maghemite-magnetite likes it hot and dry? initial insights in to the impact of seasonal bias on the formation of pedogenic iron oxides in Northern Iranian loess-paleosol sequences from temperature dependence susceptibility.
12:50 – 13:50	**Lunch break**
13:50 – 15:30	**Session III – Palaeosoils in loess deposits** **Chairperson: Heinrich Thiemeyer**
13:50 – 14:10	***Khormali F.****, Kehl M., Vlaminck S., Frechen M.* Loess-paleosols and modern soils of Northern Iran, paleoclimatic implications.
14:10 – 14:30	***Khomutova T.E****., Dushchanova K. S., Kashirskaya N.N., Idrisov I., Borisov A.V.* Microbial communities of palaeosols in loess strata of the Eastern Ciscaucasia.
14:30 – 14:50	***Khokhlova O.S.****, Sycheva S.A.* Paleosols of the Early Paleolitic Site Bayraki (Transnisria).

14:50 – 15:10	***Meenakshi G.**, Shrivastava J.*, Chandra R.* Evidences of pedogenesis and smectitization in loess-palaeosols of the Dilpur Formation, Kashmir, India: Late Quaternary climatic reconstruction.
15:10 – 15:30	***Zech W.**, Andreeva D., Zech M., Bliedtner M., Glaser B., Hambach U., Zech R* The Upper Paleolithic Tologoi Record: a terrestrial key profile for the reconstruction of Late Quaternary environmental changes in southern Siberia
15:30 – 16:00	**Coffee break**
16:00 – 17:20	**Session IV – Loess provenances** **Chairperson: Frank Lehmkuhl**
16:00 – 16:20	***Fenn K.**, Millar I., Durcan J.A., Thomas D.S.G.* The provenance of loess-palaeosol sequences along the middle and lower Danube.
16:20 – 16:40	***Költringer Ch.**, Stevens Th., Kurbanov R., Baykal Y.* Detrital zircon U-Pb ages indicate Quaternary dust sources and transport pathways in Southern Russia.
16:40 – 17:00	***Faust D.**, Pachtmann M., Trigui Y., Meszner S.* Why are soils in loess-paleosol-sequences in Southern Tunisia sandy?
17:00 – 17:20	***Baykal Y.**, Stevens Th., Újvári G., Költringer Ch.* Using zircon U-Pb ages to detect concurrent last glacial loess provenance variability with dust activity in the Carpathian Basin.
19:00	**Conference dinner** **in the old town of Yerevan**

Tuesday	**September 17, 2019**
09:30 – 11:10 Uhr	**Session V – Contextualization of loess research** **Chairperson: Roland Zech**
09:30 – 09:50	***Lehmkuhl F.**, Bösken J., Pötter S., Römer W., Hambach U., Veres D., and the „loessmap team“* Geomorphology and (paleo) loess landscapes in Europe during the last glacial cycle at different spatial and temporal scales.
09:50 – 10:10	***Zeeden Ch.**, Hambach U., Necula C., Jordanova D., Panaiotu C., Rolf Ch., Veres D., Obreht I., Marković S.B., Lehmkuhl F., Kaboth-Bahr S.* Towards a European loess stack.
10:10 – 10:30	***Rousseau D.-D.**, Antoine P., Boers N., Lagroix F., Ghil M., Lomax J., Fuchs M., Debret M., Hatté Ch., Moine O., Gauthier C., Jordanova D., Jordanova N.* Dansgaard-Oeschger millennial oscillations are not restricted to the last climate cycle: the loess point of view.
10:30 – 10:50	***Fominykh L.A.**, Zolotareva B.N., Pinsky D.L.* Paleosols of extinct oases in the loess-ice plains of the Siberian Arctic.
10:50 – 11:10	***Vandenberghe J.**, Yang X., Wang X.* A diversified set of floodplain facies of reworked loess.
11:10 – 11:40	**Coffee break**

11:40 – 13:00 Uhr	**Session VI – Recent methodological approaches** **Chairperson: Christian Zeeden**
11:40 – 12:00	***Skurzyński J.**, Jary Z.,Raczyk J.* The geochemistry of Polish loess: implications for provenance, sedimentary sorting and weathering.
12:00 – 12:20	***Kolařík P.**, Strouhalová B., Trubač J., Flašarová K., Šefrna L.* Dynamics of n-alkanes in loess-derived soils of Czechia.
12:20 – 12:40	***Bösken J.**, Klasen N., Obreht I., Hambach U., Veres D., Zeeden Ch., Brill D., Burow Ch., Pötter S., Constantin D., Lehmkuhl F., Timar-Gabor A.* Luminescence dating challenges: about hiati and methodological considerations in loess-palaeosol sequences: the Urluia example, Romania.
12:40 – 13:00	***Zech R.**, Bliedtner M, Struck J., Strobel P, Suchodoletz H., Bazarradnaa E., Zech M.* Calibrating leaf wax pattern and compound-specific isotopes
13:00 – 14:00	**Lunch break**
14:00 – 15:40	**Session VII – Archaeology and Environment** **Chairperson: Keith Wilkinson**
14:00 – 14:20	***Zarikian N.**, Kandel A.W., Gasparyan B.* Insect remains from Aghitu-3 cave, Armenia.
14:20 – 14:40	***Malinsky-Buller A.**, Glauberman Ph., Sherriff J., Bo L., Frahm E., Gasparyan B., Timms R., Adler D. S., Wilkinson K* Alapars-1: a new paleoenvironmental sequence and stratified open-air Middle Palaeolithic site in the Central Armenian Highlands.
14:40 – 15:00	*Invited speaker **Petrosyan H.*** Tigranakert, white city.
15:00 – 15:20	*Invited speaker **Episkoposyan L.*** Disentangling genetic jigsaw of the Armenian population.

15:20 – 15:40	***Sayyed M. R. G.*** Palaeoclimatic variability during Deccan volcanic episode: insights from the intrabasaltic palaeosols (bole beds) occurring around Dhebewadi area of Satara District (Maharashtra, India).
15:40 -	**Coffee break and**
16:20	**Poster Session** **Chairperson: Daniel Wolf**
	Schmidt Ch.*, Hambach U., Veres D.* How can we date loess older than MIS 3? ***Fenn K.****, Thomas D.S.G, Durcan J.A., Millar I., Veres, D., Piermattei A., Lane C.S.* Local, regional or global climatic signal? a multiproxy analysis of complex loess sequences from the Bulgarian Middle Danube. ***Grigoryan E.****, Meliksetian Kh., Wolf D., Sahakyan L., Faust D., Sugden P., Savov I.P., Koopers A.* Late Middle Pleistocene tephra from VEI=6 eruption of Nemrut volcano (SE Turkey) preserved 350 km away in loess sequences in NE Armenia. **Balescu S.**, Dupuis Ch., Haesaerts P., Quinif Y. TL signatures of quartz grains from Northwestern European loess sequences. **Ghandhar S.**, Amini A., Solgi A., Rezaei H. Relationship of the main elements with particle size in the Golestan loess and comparison of its main elements with Asia and North America.
16:20 – 17:00	**Introduction to the field trip**
16:20 – 16:40	***Lilit Sahakyan*** Geology of the territory of Armenia.
16:40 – 17:00	***Daniel Wolf*** Introduction to the field-trips.

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MID-CONFERENCE FIELD TRIP PROGRAM

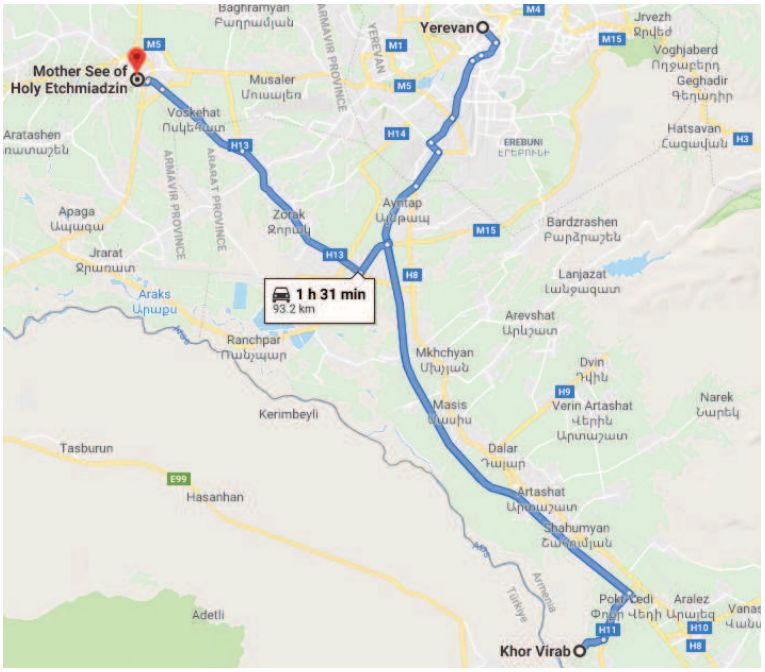
MID-CONFERENCE FIELD TRIPS FOR ACCOMPANYING PERSONS (2 Days, September 16th and 17th)

September 16th

Start from the Institute of Geological Sciences, 9.00 AM

- Khor Virap monastery

Khor Virap monastery is located in the Ararat plain in Armenia, near the closed border with Turkey. The Ararat Mountain is making an amazing landscape. The taller peak reaches 5.165m, whereas the small one is just 3.900m high; they are separated from each other by a distance of 11.3km. The Khor Virap Monastery is a shrine and a pilgrimage site important to the Armenian Christianity. The church complex is built atop the pit (= virap in Armenian), where St. Gregory the Illuminator was cruelly imprisoned, sometime at AD 288 by the heathen Armenian King Trdat III. St. Gregory suffered his imprisonment in that pit for 14 years until upon miraculously curing the king of a loathsome disease; the king freed him and converted himself and Armenia to Christianity. In 301, Armenia was the first country in the world to be declared a Christian nation.



- Lunch in Etchmiadzin town at 13.00-14.30

- Vagharshapat town. Visit of the Church of Saint Gayane and Church of Saint Hripsime (7th-century) AD.

St. Hripsime church (7th Century AD)

St. Gayane church (7th Century AD)

The fifth century Armenian historian Agathangelos wrote that the young and beautiful Hripsime who at the time was a Christian nun in Rome, was to be forcefully married to the Roman emperor Diocletian. She and the abbess Gayane among other nuns fled the tyrant emperor and left to Armenia. The Armenian king Tiridat III fascinated by the beauty of the same nun Hripsime, also wished to marry her. Getting the negative answer, the king ordered to kill all the nuns. These events occur in 301 in Vagharshapat, a few days before Grigor Lusavorich (Enlightener) was set free. According to the legend, in the very place where Gayane was killed, a church was built.

September 17th

Start from the Institute of Geological Sciences, 9.30 a.m.

- Visit of the Cascade - a giant stairway made of limestone is one of the most spectacular tourist attractions in Yerevan city. In order to get to the Arts Center, there is an escalator inside the Cascade, equal to the length of the complex, providing a commode means of reaching to the top for those who do not love climbing the stairs or are simply unable.

The spectacular view to Yerevan from the top of Cascade

- Visit of the Erebuni Urartian fortress and Museum, 11.00-12.00

The citadel of Erebuni fortress

Erebuni fortress is an Urartian fortified city, located in Yerevan. It was one of several fortresses built along the northern Urartian border and was

one of the most important political, economic and cultural centers of the vast kingdom. The name Yerevan itself is derived from Erebuni. It was founded by Urartian King Argishti I (786–764 BC) in 782 BC.

- Visit of the Matenadaran museum in Yerevan, 13.00-14.00

Matenadaran - Scientific Research Institute of Ancient Manuscripts after Mesrop Mashtots is a repository of ancient manuscripts, research institute and museum in Yerevan. It holds one of the world's richest depositories of medieval manuscripts and books, which span a broad range of subjects, including history, philosophy, medicine, literature, art history and cosmography in Armenian and many other languages.

Matenadaran - Scientific Research Institute of Ancient Manuscripts

- Lunch 14.30-16.00

- State History Museum of Armenia, 16.30-17.30

The State History Museum of Armenia is located in the center of the capital. The excursion in the Museum will cover several departments, such as archeological, medieval etc.