

# **Gerasimenko Natalia Petrivna**

## **CV**

### **POSITION**

Professor, Department of Earth Sciences and Geomorphology, Geography Faculty  
Taras Shevchenko National University of Kyiv

### **WORK EXPERIENCE**

**1975–1984**

Engineer

Institute of Geography, National Academy of Sciences of Ukraine, Kyiv (Ukraine)

**1984–1987**

Younger Research Scientist

Institute of Geography, National Academy of Sciences of Ukraine, Kyiv (Ukraine)

**1987–1991**

Research Scientist

Institute of Geography, National Academy of Sciences of Ukraine, Kyiv (Ukraine)

**1991-2005**

Senior Research Scientist and Leading Research Scientist

Institute of Geography, National Academy of Sciences of Ukraine, Kyiv (Ukraine)

**2005-Present**

Professor

Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)

**2019–Present**

Leader of the Project “Environments of the Prehistorical and Historical Man in different areas of  
Ukraine”(№ 19БФ050-01)

Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)

### **EDUCATION AND TRAINING**

**1975**

MSc

Taras Shevchenko National University of Kyiv, Kyiv (Ukraine)

**1985**

PhD

Institute of Geography, National Academy of Sciences of Ukraine, Kyiv (Ukraine)

**2004**

Doctor of Sci. in Geomorphology and Palaeogeography, Institute of Geography, National Academy of Sciences of Ukraine Kyiv (Ukraine)

**Research Fields:** Quaternary environments, Quaternary stratigraphy, Quaternary palynology, Quaternary pedology, Palaeoecology, Geoarchaeology

### **Previous and Current Research**

As Quaternary palaeogeography is based on Quaternary stratigraphy, the studies on these two subjects are directly connected. The first research was aimed on reconstruction of Quaternary landscapes on the regional scale, namely in the Kyiv area. On the basis of field research of stratigraphy of Quaternary sections, morphological and analytical studies of palaeosols, pollen study of Quaternary deposits and analyses of lithological-facial features, thicknesses and hypsometrical positions of Quaternary stratigraphic units, the maps of relief and soil cover have been first built for each of these unit. Later on, the analyses of palaeosols and palynospectra from deposits of different relief elements enable the reconstruction of zonal and regional palaeolandscapes in the area studied. The further studies of Quaternary stratigraphy and reconstruction of palaeosols, palaeovegetation and palaeoclimate, existing during the Quaternary stages, have been fulfilled for different areas of Ukraine: the Donetsk area, the Middle Dnieper area (Central Ukraine), the plain and mountainous Crimea, the Carpathian foreland, Transcarpathia and the Black Sea Plain. The short-period stages of zonal features of palaeolandscape development have been established, and the maps of zonal palaeolandscapes have been built for the area of Ukraine. A part of results have been based on the studies of archaeological sites from the Middle Palaeolithic to the Medieval times. These geoarchaeological studies formed the base of palaeoecological investigation

The current research includes:

- the further study of archaeological sites in order to reconstruct environments of Prehistorical and Historical Man in the area of Ukraine;
- elaboration of the GIS-map of geoarchaeological sites of Ukraine;
- collaboration with researchers on palaeomagnetic and petromagnetic properties of Quaternary deposits and on the dating methodologies in order to elucidate duration of the stages and phases of Quaternary environmental development.

### **Future Projects and Goals**

In the near future we intend to continue the aforementioned lines of research as well as to start new projects including:

- correlation of the Ukrainian stratigraphical framework with the central and western European and global frameworks;
- participation in the international projects on the compiling of database of key Quaternary sites of Europe and the new Quaternary map of Europe.
- the study of the Upper Pleistocene climatic fluctuations on the millennia scale.

### **Selected Publications**

Haesaerts P., **Gerasimenko, N.**, Damblon, F., Yurchenko, T., Kulakovska, L., Usik, V., Ridush,

- B. (2020). The Upper Paleolithic site Doroshivtsi III: A new chronostratigraphic and environmental record of the Late Pleniglacial in the regional context of the Middle Dniester-Prut loess domain (Western Ukraine). *Quaternary International*, 545, 196-215.
- Tecsa, V., **Gerasimenko, N.**, Veres, D., Hambach, U., Lemhkuhl F., Schulte P., Timor-Gabor, A. (2020) Revisiting the chronostratigraphy of Late Pleistocene loess-paleosol sequences in South-Western Ukraine: OSL dating of Kurortne section. *Quaternary International*, 542, 65-79.
- N. Gerasimenko, B. Ridush, Yu. Avdeyenko (2019). [Late Pleistocene and Holocene environmental changes recorded in deposits of the Bukovynka Cave \(the East-Carpathian foreland, Ukraine\).](#) *Quaternary International* 504, 96-107.
- N. Gerasimenko, T. Yurchenko, Y. Rohozin (2019). [Vegetation changes in the Hotyn Upland over the last 2000 years \(based on pollen data\).](#) *Journal of Geology, Geography and Geoecology*, 28 (1), 51-58.
- D. Constantin, D. Veres, C. Panaiotu, V. Anechitei-Deacu, S. Groza, R. Begy, S. Kelemen, J-P. Buylaert, U. Hambach, S. Marković, N. Gerasimenko, A. Timar-Gabor (2019). [Luminescence age constraints on the Pleistocene-Holocene transition recorded in loess sequences across SE Europe.](#) *Quaternary Geochronology* 49, 71-77.
- N. Gerasimenko, I. Koval'chuk (2019). [The Late Pleistocene soils as indicators of the impact of environmental changes on development of pedogenic processes \(the study case from the Kryva Luka site, Donetsk area\).](#) *Journal of Geology, Geography and Geoecology*, 28 (2), 262-274.
- N. Gerasimenko, L. Kulakovska, V. Usik, O. Votiakova (2019). [Palaeoenvironmental changes during the Middle and Early Upper Paleolithic in the Upper-Tysa Depression, Ukraine \(the Sokyrnytsya and Ruban' sites\).](#) *Journal of Geology, Geography and Geoecology*, 28 (2), 275-291.
- D. Veres, V. Tecsa, N. Gerasimenko, C. Zeeden, U. Hambach, A. Timar-Gabor (2018). [Short-term soil formation events in last glacial east European loess, evidence from multi-method luminescence dating.](#) *Quaternary Science Reviews* 200, 34-51.
- E. Marinova, S. Harrison, F. Bragg, S. Connor, V. De Laet, S. Leroy, P. Mudie, J. Atanassova, E. Bozilova, H. Caner, C. Cordova, M. Djamali, M. Filipova-Marinova, N. Gerasimenko, S. Jahns, K. Kouli, U. Kotthoff, E. Kvavadze, M. Lazarova, E. Novenko, E. Ramezani, A. Röpke, L. Shumilovskikh, I. Tanțău, S. Tonkov (2018). [Pollen-derived biomes in the Eastern Mediterranean–Black Sea–Caspian–Corridor.](#) *Journal of Biogeography* 45 (2), 484-499.
- P. Haesaerts, F. Damblon, N. Gerasimenko, P. Spagna, S. Pirson (2016). [The Late Pleistocene loess-paleosol sequence of Middle Belgium.](#) *Quaternary International* 411, 1-19.
- D. Hlavatskyi, D. Kuzina, N. Gerasimenko, V. Bakhmutov (2016).

[Petromagnetism and palaeomagnetism of Quaternary loess-soil sediments of Vyazivok section \(Dnieper Lowland\).](#)

Geofizicheskiy Zhurnal 38 (6), 186-193.

V. Prikhod'ko, I. Ivanov, D. Manakhov, N. Gerasimenko, K. Inubushi, M. Kawahigashi, Kh. Nagano, S. Sugihara (2013).

[Soils, vegetation, and climate of the southern Transural region in the Middle Bronze Age \(by the example of the Arkaim fortress\).](#)

Eurasian Soil Science 46 (9), 925-934.

D.D. Rousseau, P. Antoine, N. Gerasimenko, A. Lima, M. Fuchs, O. Moine, L. Zoeller (2011).

[North Atlantic abrupt climatic events of the last glacial period, recorded in Ukrainian loess deposits.](#)

Climate of the Past 7, 221-234.

N. Gerasimenko (2011).

[Climatic and environmental oscillations in southeastern Ukraine from 30 to 10 ka inferred from 30 to 10 pollen and lithopedology .](#)

The Geological Society of America. Special Paper 473, 117-132.

C.E. Cordova, N.P. Gerasimenko, P.H. Lehman, A.A. Klyukin (2011).

[Late Pleistocene and Holocene paleoenvironments of Crimea: pollen, soils, geomorphology and geoarchaeology.](#)

The Geological Society of America. Special Paper 473, 133-164.

B. Buggle, B. Glazer, U. Hambach, N. Gerasimenko, M. Slobodan (2011).

[An evaluation of geochemical weathering indices in loess-palaeosol study.](#)

Quaternary International, 240 (1-2), 12-21.

Bokhorst, M., Vandenberghe, J., Sumegi, P., Lanzont M., Gerasimenko, N.P., Matviishina, Zh., Markovich S., Frechen, M. (2011).

[An evaluation of geochemical weathering indices in loess-palaeosol study. Atmospheric circulation patterns in Central and Eastern Europe during the Weichselian pleniglacial inferred from loess grain-size record.](#)

Quaternary International 234 (1-2), 62-74.

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