

Curriculum Vitae

PERSONAL INFORMATION Mikheil Elashvili (He, Him)

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WORK EXPERIENCE

- 2022–Present **Invited professor**
Bartlett College of Science & Mathematics, Bridgewater State University, MA, USA
- 2015–Present **Professor**
School of Natural Sciences, Ilia State University (ISU), Tbilisi, Georgia
- 2018–2022 **Adjunct Faculty**
Department of Engineering, San Diego State University, CA
- 2017–Present **Director**, Cultural Heritage and Environment Research Center, ISU, Georgia
- 2013–2014 **Dean**, School of Engineering, ISU, Tbilisi, Georgia
- 2011–2014 **Associated Professor**, School of Engineering, ISU, Tbilisi, Georgia
- 2010–2012 **Deputy Director**, Institute of Earth Sciences, ISU, Tbilisi, Georgia
- 2008–2011 **Assistant Professor**, School of Engineering, ISU, Tbilisi, Georgia
- 2006–2010 **Deputy Director**, Seismic Monitoring Center, Tbilisi, Georgia
- 2004–2005 **Head of Department**
Department of Regional Seismology, Institute of Geophysics, Tbilisi, Georgia
- 1996–2004 **Researcher**, Institute of Geophysics, Tbilisi, Georgia

EDUCATION

- 2000–2004 **Ph.D. in Solid Earth Physics**
Institute of Geophysics. Georgian National Academy of Sciences
- 1997–1999 **M.Sc. in Applied Mathematics and Informatics**
Tbilisi State University, Georgia
- 1993–1997 **B.Sc. in Mathematics**
Tbilisi State University, Georgia

PROFESSIONAL DEVELOPMENT AWARDS

- 2002–2003 **Young Scientist Fellowship, INTAS**, Geophysical Observatory of Athens, Greece
- 2012 **Presidential Scholarship of Georgia**
- 2012 **Junior Faculty Development Program (JFDP)**, Environmental Studies, MIT, MA, USA
- 2014 **DAAD Research Scholarship**, Institute of Geography, University of Cologne
- 2022 **Fulbright Visiting Scholar**, Bridgewater State University, Bridgewater, MA, USA
- 2023 **EU Fellowship for Georgian Researchers**, Climate change and human-environment interaction
- 2025 **THEMIS program scholarship**, Fondation Maison des Sciences de l'Homme, France

OTHER SCHOLARSHIP / EXPERTISE

- Coauthor of Atlas of Natural Hazards & Risks of Georgia, CENN, ISBN 978-9941-0-4310-9, 2012
- GIS and RS expert, Using Aerial photogrammetry and GIS for Assessment of Wood and Agriculture Residue Biomass Energy Potential in Georgia, WEG, 2014
- Coauthor of Lecture Notes "Climate Change and Sustainable Development", Heinrich Boll Foundation. ISBN:978-9941-0-9545-0, 2016
- Coauthor of 2016 and 2018 "BIENNIAL UPDATE REPORT Climate change mitigation policy and measures", Expert in Land Use, Land Use Change and Forestry (LULUCGF) sector, WEG
- Review Panelist – Selection committee: Rustaveli-DAAD Fellowship for PhD and Postdocs, DAAD, 2021
- Review Panelist – Selection committee: National Science Foundation USA, International Research Experience for Students (IRES) program, 2023

CONFERENCES and Workshops (Selected, last 10 years)

Sessions Chaired

- Co-Convener - NH6.4 Session: Remote Sensing & Cultural Heritage, EGU 2020
- Co-Convener - NH6.8 Session: Remote Sensing & Cultural Heritage, EGU 2021
- Session Chair: ASOR 2021, Interdisciplinarity at SiMUR - the Shiraki International Multidisciplinary Undergraduate Research Project (Virtual)
- Session Chair - Interdisciplinarity at SiMUR - the Shiraki International Multidisciplinary Undergraduate Research Project (Workshop), American Society of Overseas Research, 2022 Fall Meeting
- Organizer - Workshop hosted by the Ilia State University "Georgia Historical Ice-Core Project (SHICP): Pilot Publications and Next Stages", July 2023.
- Co-organizer - Workshop hosted by the École Normale Supérieure, Paris "Climate Change and Human-Environmental Interaction in Caucasus", Dec 2023.
- Session Chair - Archaeology of the Black Sea and the Caucasus, American Society of Overseas Research, 2025 Fall Meeting

Selected Presentations (last 10 years)

- Mounds in the mud: Historic Maps, Aerial Images, Lidar and AI in Colchian digital archaeology (Republic of Georgia), Conference: Linking Pasts And Sharing Knowledge 2. Digital Archaeology, Legacy Data Integration and Web Technologies for Modelling Historical Landscapes, Naples, 2025
- Reconstructed Paleo-landscape of the Shiraki Plain, Georgia, ESRI User Conference, San Diego 2025
- Using GRASS GIS and the MedLanD Socioecology Model to Study the Paleoenvironment of the Shiraki Plateau, Georgia, American Society of Overseas Research (ASOR) 2024 Annual Meeting, Boston, USA
- Crossroads: Creating a Virtual Cultural Heritage Network with U.S. and Georgian High School Students, American Society of Overseas Research (ASOR) 2024 Annual Meeting, Boston, USA
- Holocene Paleoenvironmental Evolution of a Shiraki Plain (south-eastern Caucasus) in Connection with Late Bronze to Early Iron Age Settlement Activity. ASOR 2022 Annual Meeting, Boston, USA
- Application of close-range remote sensing techniques for assessing landslide hazard in rock-carved cultural heritage sites, EGU General Assembly 2021, Vienna, Austria
- Reconstructing the Holocene paleoenvironment of the semi-arid Shiraki Plain of eastern Georgia –a center of settlement activity during the LBA and EIA, EGU General Assembly 2020, Vienna, Austria
- Cultural heritage monument complex monitoring data analyses using machine learning algorithms, EGU General Assembly 2020, Online, Vienna, Austria
- Concept of Complex Environmental Monitoring Network, Vardzia RockCut City Case Study, EGU General Assembly 2016, Vienna

- Study of settlement distribution pattern in the Kolkheti lowland (Black Sea coast) starting from EBA - natural and human influence and adaptation. EGU General Assembly 2015, Vienna
- The Holocene landscape development of the Gareja region in eastern Georgia – an interdisciplinary approach. American Geophysical Union (AGU) 2014 Fall Meeting, San Francisco, USA

RESEARCH PROJECTS

- 2025 - 2027 **Climate and Environmental Changes in Javakheti Highland: Insights into Bronze Age Megalithic Culture**, in collaboration with the University of Cologne and Tallinn University. Shota Rustaveli National Science Foundation # FR-24-20010 (**Project PI**)
- 2025 - 2026 **EnviroLink: Linking Research, Education, and Technology in Interdisciplinary Environmental Sciences**, International research cluster at the Cologne International Forum. In collaboration with the University of Cologne (**Team leader from Georgia**) <https://cif.uni-koeln.de/projects/international-research-cluster-2025-26>
- 2024-2026 **Holocene glacier-climate reconstructions in the Greater Caucasus**, Shota Rustaveli Georgian National Science Foundation, project # FR-23-4258 (**Researcher**)
- 2024-2025 **Expanding Real-Time Meteorological Observations in the Greater Caucasus - Gathering Altitude Dependent Critical Data for Multidisciplinary Studies**, In collaboration with the Climate Change Institute, University of Maine and Monash University, Australia. Mountain Research Initiative (MRI). (**Project PI**)
- 2023-2024 **The “Crossroads” Virtual Museum - Bringing Cultural Heritage Protection to Classrooms**, U.S. Embassy Democracy Commission Small Grant (**Project PI**)
- 2019-2024 **SIMuR: Shiraki International Multidisciplinary Undergraduate Research Project** (IRES-1854153), US National Science Foundation, Bridgewater State University (**Lead International Collaborator**)
- 2020-2023 **The Georgia Historical Ice Core Project (GHICP): understanding and promoting a vanishing climate and cultural history of central Eurasia**. In collaboration with University of Nottingham, UK and Climate Change Institute, University of Maine, USA. Global Challenges Research Fund, UK (**Co-PI from Georgia**) <https://www.nottingham.ac.uk/humanities/departments/classics-and-archaeology/research/research-projects/current-projects/loveluck-ice-cores-caucasus.aspx>
- 2019-2024 **SIMuR: Shiraki International Multidisciplinary Undergraduate Research Project** (IRES-1854153), US National Science Foundation: International Research Experience for Students (IRES) program (NSF 18-505) Bridgewater State University (**Lead International Collaborator**)
- 2014-2021 **Complex Study and Monitoring of Rock Curved Cultural Heritage Monuments of Georgia**. funded by the National Cultural Heritage Protection Agency of Georgia, (**Project Manager**)
- 2019-2021 **Reconstruction of Late Holocene Paleoenvironmental Conditions of the Shiraki plain – Traces of Early State Formations in the Southern Caucasus**, In collaboration with University of Leipzig and University of Tallin, Shota Rustaveli GNSF, FR-18-22377 (**Project Manager**)
- 2017-2019 **Natural Catastrophes in South Caucasus: Historical Earthquakes and Associated Natural Phenomena from ancient times till XIX century**, Shota Rustaveli GNSH, FR 217804 (**Researcher**)
- 2016-2020 **High mountain large lakes as key components of local environment, study of natural and man-made impacts**. Participating Countries: Georgia, Armenia, Kyrgyzstan. International partners : University of Cologne, Tallin University, Nature Research Centre, Lithuania and Laboratoire méditerranéen de préhistoire Europe Afrique, Ecosystèmes Quaternaires, France. International Science and Technology Center – ISTC G-2153 (**Project Manager**) <https://www.istc.int/projects/479>
- 2012-2017 **Discovering potential seismic sources in the Caucasus using virtual-reality based data analysis and development of a cyber-enabled geosciences workforce in Georgia**. U.S. National Academy of Sciences, PEER PGA-2000001895, USA, (**Project PI**)

- Laermanns, H., Elashvili, M., Brückner, H., 2025, **Bronzezeitliche Siedlungshügel der Kolchis, Zeugen früher Besiedlung in Westgeorgien**, Kulturen im Kaukasus. Spuren zwischen Bergen und Steppen. Editor: Sabine Reinhold. Special Issue, Archaologie in Deutschland, 33, pp75-78
- Tielidze, Levan G., Andrew N. Mackintosh, Alexander Gavashelishvili, Lela Gadrani, Akaki Nadaraia, and Mikheil Elashvili. 2025. "Post-Little Ice Age Equilibrium-Line Altitude and Temperature Changes in the Greater Caucasus Based on Small Glaciers" Remote Sensing 17, no. 9: 1486. <https://doi.org/10.3390/rs17091486>
- Losaberidze, L., Kirkitadze, G., Akhalaia, M., Lobjanidze, M., Zimmerman, M., and Elashvili, M. (Last author), 2024. **New insights into complex social organization in the southern Caucasus Late Bronze Age–Early Iron Age settlement patterns in the Shiraki Plain (southeast Georgia)**, E&G Quaternary Sci. J., 73, 145–158, <https://doi.org/10.5194/egqsj-73-145-2024>
- Loveluck, C. P., Tielidze, L. G., Elashvili, M., Kurbatov, A. V., Gadrani, L., Erb-Satullo, N., von Suchodoletz, H., Dan, A., Laermanns, H., Brückner, H., Schlotzhauer, U., Sulava, N., & Chagelishvili, R., 2024. **Rapid Climate Change, Integrated Human–Environment–Historical Records and Societal Resilience in Georgia**. Sustainability, 16(16), 7116. <https://doi.org/10.3390/su16167116>
- Gademann, D., Ustiashvili, N., Adikashvili, L., Navrozashvili, L., Erb-Satullo, N., van der Meij, M., Kirkitadze, G., Koff, T., Elashvili, M., Brückner, H. and Laermanns, H., 2024. **The Lake Paravani archive a contribution to the late Quaternary landscape evolution of the Lesser Caucasus (Georgia)**, Boreas, 53: 655-672. <https://doi.org/10.1111/bor.12669>
- Laermanns, H., Elashvili, M., Kirkitadze, G., Loveluck, C. P., May, S. M., Kelterbaum, D., Papuashvili, R., & Brückner, H. 2024, **The Bronze Age occupation of the Black Sea coast of Georgia - New insights from settlement mounds of the Colchian plain**. Geoarchaeology, 39, pp. 335-350, <https://doi.org/10.1002/gea.21994>
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- Frodella, W., Gigli, G., Spizzichino, D., Margottini, C., Elashvili, M., Casagli, N., 2023. **Protection and Conservation of Georgian Rupestrian Cultural Heritage Sites: A Review**. In: Alcántara- Ayala, I., et al. Progress in Landslide Research and Technology, Volume 2 Issue 1, pp. 307-320, Springer. https://doi.org/10.1007/978-3-031-39012-8_14
- von Suchodoletz, H., Giorgi Kirkitadze, Tiiu Koff, Markus L. Fischer, Rosa M. Poch, Azra hosravichenar, Birgit Schneider, Bruno Glaser, Susanne Lindauer, Silvan Hoth, Anna Skokan, Levan Navrozashvili, Mikheil Lobjanidze, Mate Akhalaia, Levan Losaberidze, Mikheil Elashvili (Last author), 2022, **Human-environmental interactions and seismic activity in a Late Bronze to Early Iron Age settlement center in the southeastern Caucasus**, Frontiers in Earth Science, <https://doi.org/10.3389/feart.2022.964188>

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- Frodella, W., Mikheil Elashvili, Daniele Spizzichino, Giovanni Gigli, Akaki Nadaraia, Giorgi Kirkitadze, Luka Adikashvili, Claudio Margottini, Nikoloz Antidze and Nicola Casagli, 2021, **Applying Close Range Non-Destructive Techniques for the Detection of Conservation Problems in Rock-Carved Cultural Heritage Sites**, Remote Sensing 2021, 13(5), 1040. <https://doi.org/10.3390/rs13051040>
- Frodella, W., Mikheil Elashvili, Daniele Spizzichino, Giovanni Gigli, Luka Adikashvili, Nikoloz Vacheishvili, Giorgi Kirkitadze, Akaki Nadaraia, Claudio Margottini and Nicola Casagli, 2020, **Combining InfraRed Thermography and UAV Digital Photogrammetry for the Protection and Conservation of Rupestrian Cultural Heritage Sites in Georgia: A Methodological Application**, Remote Sensing, 12(5), 892; <https://doi.org/10.3390/rs12050892>
- Kvavadze, D., Basilaia, G., Munchava, T., Laluashvili, G., and Elashvili, M (last author), 2020, **Cultural heritage monument complex monitoring data analyses using machine learning algorithms**, EGU General Assembly 2020, Online, EGU2020-18154, <https://doi.org/10.5194/egusphere-egu2020-18154>
- Laermanns, H., May, S. M., Kelterbaum, D., Kirkitadze, G., Opitz, S., Navrozashvili, L., Elashvili, M., and Brückner, H. 2019, **Coastal lowland and floodplain evolution along the lower reaches of the Supsa River (western Georgia)**, E&G Quaternary Sci. J., 68, 119–139, <http://dx.doi.org/10.5194/egqsj-68-119-2019>
- Daniele Spizzichino, Daniela Boldini, William Frodella, Mikheil Elashvili and Claudio Margottini, 2017, **Landslide risk analysis and mitigation for the ancient rock-cut city of Vardzia (Georgia)**, Proceedings of 2017 IPL Symposium, UNESCO, Paris
- Hannes Laermanns, Daniel Kelterbaum, Simon Matthias May, Mikheil Elashvili, Stephan Opitz, Daniela Hülle, Julian Rolken, Jan Verheul, Svenja Riedesel, Helmut Brückner, 2016, **Mid- to Late Holocene landscape changes in the Rioni delta area (Kolkheti lowlands, W Georgia)**, Quaternary International March 2017 DOI: 10.1016/j.quaint.2016.12.037
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- Adam M. Forte, Dawn Y. Sumner, Eric Cowgill, Marius Stoica, Ibrahim Murtuzayev, Talat Kangarli, Mikheil Elashvili, Tea Godoladze, Zurab Javakhishvili, 2014, **Late Miocene to Pliocene stratigraphy of the Kura Basin, a subbasin of the South Caspian Basin: Implications for the diachroneity of stage boundaries**, BASIN RESEARCH, DOI: 10.1111/bre.12069
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- Elashvili M., Z. Javakhishvili, M. Gigiberia, Kh. Kvividze, 2011, **Application of Modern Geophysical**

methods and Computer technologies in Archaeology. „Khornabuji I”, Ilia State University, Vol 1, pp 222-229, ISSN 1512-2999 (In Georgian with English abstract)

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