## **CURRICULUM VITA**

### **THURE E. CERLING**

Born: November 16, 1949. Elmhurst, Illinois, US citizen

#### ACADEMIC POSITIONS

Distinguished Professor, Dept. of Geology and Geophysics, University of Utah Distinguished Professor, Dept. of Biology, University of Utah Francis H Brown Presidential Chair, University of Utah

## **EDUCATION**

B.S.	Geology and Chemistry	Iowa State University	1972
M.S.	Geology	Iowa State University	1973
Ph.D.	Geology	University of California Berkeley	1977

## SOCIETY AFFILIATIONS

American Association for the Advancement of Science (Fellow – 1997) American Geophysical Union (Fellow – 2016) Geochemical Society Geological Society of America (Fellow – 1994) International Association of Geochemistry and Cosmochemistry (Fellow – 2008)

#### **PROFESSIONAL EXPERIENCE**

Geologist, Shell Oil Company, 1973; Geologist, The Anaconda Company, 1976
Research Scientist, Oak Ridge National Laboratory, 1977–79
Assistant (1979-1986), Associate (1986-1992), Full Professor (1992-present), Distinguished Professor (2002-present). University of Utah.
Francis H Brown Presidential Chair, University of Utah (2018-present)
Chair, Department of Geology and Geophysics (2016-present)

## FIELD STUDIES

Cosmogenic isotope studies: western USA, Antarctica, Argentina, Europe, Hawaii
Exploration Geology (oil and uranium): Utah, Arizona, Colorado, Texas
Ice studies: Antarctica, Alaska
Lakes: Lake Turkana (Kenya), Lake Malawi (Malawi), Lake Hövsgul (Mongolia)
Paleontological/Archeological sites: Turkey, Kenya, Tanzania, Spain, western USA, Bolivia, India, Pakistan, India, Argentina, Ethiopia
Radioactive waste disposal: Tennessee, Nevada, California.
Savanna/grassland ecosystems: Kenya, Uganda, Argentina, USA, Canada, Mongolia
Soils and paleosols: USA, Canada, Kenya, Tanzania, Spain, France, Pakistan, India, Ethiopia
Volcanic ash correlation and radiometric dating: Kenya
Wildlife Conservation studies: Kenya, Uganda, South Africa, USA, DR Congo, Alaska

# **CURRENT RESEARCH INTERESTS**

isotope physiology and paleodiets of mammals; isotopes in forensic studies; geology of Old World paleoanthropologic sites; wildlife conservation; development of the Asian monsoon system; stable isotopes as climatological indicators; geochemistry of large lakes; environmental geochemistry (contaminant migration in groundwater, rivers, and soils); surface exposure dating using cosmogenic isotopes; history of the atmosphere (CO<sub>2</sub>, O<sub>2</sub>).

# **PROFESSIONAL ACTIVITIES**

National Academy of Science - National Research Council.

National Academy of Sciences – Committee Member

GK Warren Prize Committee (2011, 2014); NAS Award for Scientific Reviewing Committee (2011); Mary Thompson Award Committee (2015, 2021 (chair)); Cozzarelli Prize Committee (2013-2015); Arthur Day Medal and Lecture Committee, chair (2016-17); Class Membership Committee (Class I) 2016-2018;

National Academy of Sciences – Section Chair (15 – Geology, 2015-2018)

Board of Earth Sciences and Resources (BESR). Studies (Member of committee) Physics and Chemistry of Earth Materials, 1986; Earth Surface Processes, 1988–1990; Characterizing the Upper Part of the Earth's Crust, 1993; BESR Board member, 1994–96; Geodynamics Committee, 1995–97; Grand Challenges in Earth Sciences, 2006–2008; Climate and Human Evolution, 2007–2010; Committee on Earth Resources, 2012–2018

Board of Environmental Studies and Toxicology (BEST). Studies (Member of committee) Study of the Control of Respirable Coal Mine Dust Exposure in Underground Mines, 2016-2018 (Chair)

Board on Radioactive Waste Management (BRWM). Studies (Member of committee or guest expert)

Hydrologic/tectonic/hydrothermal systems at Yucca Mountain (guest expert) 1991; Review of Specific Scientific and Technical Safety Issues Related to Ward Valley, CA, 1994–95; Committee on Long–Term Institutional Management of DOE Legacy Waste Sites, 2001–2002.

- U.S. National Committee for the International Union of Quaternary Research: 1992–95; 2020-2024
- NASA: Workshop on the Dating of Surface Features of Mars, 2000
- United Nations Office on Drugs and Crime; Guidelines for forensics methods and procedures for ivory sampling and analysis, 2013-2014.
- American Geophysical Union; Water Quality Committee, 1986–88. Fellows Committee, 2017-2019.

Geological Society of America: Climate Change Committee, 2004–2006, 2009–2010

National Science Foundation: Panel member: Archeometry, 1992–94; Geology and Paleontology, 1999–2000

U. S. Department of Energy, Basic Energy Sciences: Panel review member, Geochemistry Program, 1992–93; Guest panelist, Reactivity and mobility of geologic fluids: constraints from inorganic chemistry. 1996

International Union of Geological Sciences: Nuclear Waste Group (1995–1997)

Geochemical Society. Board of Directors. 2000–2002

Fulbright Foundation. Discipline Peer Review Committee. 2010-2016

Save-The-Elephants. Science Advisory Board, 2012-2018.

IsoForensics. Advisory Board Member, 2004-2019.

Turkana Basin Institute. Grants Committee member, 2019 - present

Utah Department of Environmental Quality: review of documents for Division of Water Quality, 2016.

Review of Department or Center: The Ohio State University – Byrd Polar Center (2002); UC Santa Barbara – Earth Sciences (2004); Purdue University – Earth, Atmospheric, and Planetary Sciences (2009, 2014); University of New Mexico – Earth & Planetary Sciences (2013)

Northwestern University, committee member – Nemmers Award in the Earth Sciences. 2018.

## **EDITORIAL BOARDS**

Geology, Editorial Board. 1992–1997; Chemical Geology, Editorial Board. 1999–2007
Geochimica et Cosmochimica Acta. Associate Editor. 1999–2002, 2013–2015; Quaternary Research. Editorial Board. 2002–2017; African Journal of Ecology – International Review Panel. 2007–present; Proceedings of the National Academy of Science. Editor. 2011–present.

## HONORS, AWARDS, AND SPECIAL APPOINTMENTS

Governor's Nuclear Waste Task Force, State of Utah, 1981-83

Visiting scholar, professor, fellow

Visiting Scholar. Scripps Institution of Oceanography, 1987–1988; Visiting Fellow for Global Change. Yale University, Jan–March, 1990; Visiting Professor. University of Lausanne, Switzerland. 1994–1995; Visiting Professor. California Institute of Technology. March – June 1996; Fulbright Fellow. University of Cape Town, South Africa. August 2004–June 2005; Visiting Professor. California Institute of Technology. Jan – May 2012; Visiting Scholar; École Normale Supérieure, Lyon, France. May – June 2016; Visiting Scholar. ETH-Zurich. Sept – Oct 2019; Visiting Scholar. Mpala Research Centre, Nanyuki. Nov – Dec 2019.

Distinguished Research Award, University of Utah, 1998.

US National Academy of Science, elected 2001.

Distinguished Professor of Geology and Geophysics, University of Utah. 2002

Distinguished Professor of Biology. University of Utah. 2002

US Nuclear Waste Technical Review Board. 2002–2011. (Presidential appointment)

Iowa State University. College of Liberal Arts and Science Alumni Award. 2005

Utah Governor's Medal for Science and Technology. 2012

Geological Society of America. President's Medal. 2017

American Geophysical Union. Excellence in Earth and Space Science Education Award. 2017 International Mineral Association. Mineral of the year 2017: Rowleyite. (Kampf et al., 2017). International Union of Geological Sciences. Émile Argand Medal. 2020

### **OTHER**

Stable Isotope Ecology. Development and teaching of 2-week summer short course (1996 - present); >800 participants from > 100 US institutions, and from > 30 countries. http://stableisotopes.utah.edu

Geology of the Turkana Basin. Development and teaching of 2-week field-based summer short course taught in Kenya (2007 – 2011; >40 participants from >25 institutions).