

CV

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Education

Doctor of Philosophy, Geography, University of Oxford, U.K. “Nomadic Geography: Pastoral environments in the Gobi Desert, Mongolia” 2009.
Masters of Science, Honors, Range Science, Texas Tech University, Lubbock, Texas, U.S. 2004.
Bachelor of Arts, University of California, Los Angeles, U.S. 1981.

Professional Experience:

2018-now **Senior Researcher**, University of Oxford, School of Geography.
ESRC-Global Challenges Research Fund – Inclusive Societies: ‘Mediation Model for Sustainable Infrastructure Development’. \$1 million award.
Lead researcher, grantwriter. Creates framework for sustainable infrastructure, inclusive social welfare and economic development in communities; reduces negative outcomes for populations and environments in Mongolia & Central Asia.

2020-2021 **MSc Course Director**, Water, Society, Policy & Management, Oxford University

2017-2018 **Researcher**, China’s ‘One Belt, One Road’: institutions, infrastructure and environment - implications in Central Asia, Pakistan, Mongolia and China.
• Develop, design, research, grantwriting; organise workshop and conference.
• Establish international partnerships, research agenda on ‘New Silk Road’.

2015-2017 **Environment Research**, Mongolia. International Finance Corp., World Bank.
• Investigate mining impact on environment, water, land, livelihoods, culture
• Assess comprehensive environmental conditions and trends. Mongolia.

2014-2020 **Tutor**, School of Geography, University of Oxford.

2010-2015. **British Academy Post-Doctoral Fellowship; John Fell Fund Research Fellow**
University of Oxford, School of Geography.
• Human-hazard interaction - Gobi Desert; Climate hazards - Asian Drylands.
• Develop research, lead fieldwork, coordinate partners, write journal articles.

2009-2010 **Consultant**, United Nations Development Programme, Mongolia.
• Strengthening Disaster Mitigation and Management Systems Mongolia.
• Assess disaster planning effectiveness, present new mitigation strategies.

2007-2010 **Researcher**, Ivy on Walls Project. Rock Breakdown Lab, Oxford University.

Major Awards

2020 **ESRC Impact Accelerator:** Upscaling community mediation from Central to Southeast Asia. University of Oxford.

2020. **UK Research & Public Policy Partnership Scheme:** Designing COVID-19 policy for Mongolian pastoralist communities. University of Oxford.

2018 **ESRC-Global Challenges Research Fund – Inclusive Societies.** Grantwriter.

2017 **European Union COST Science and Technology - Drylands Facing Change**

2016 **Knowledge Exchange ‘Living with Dryland Variability’.** ESRC-University Oxford.

2014 **John Fell Fund Research Fellow.** Climate Hazards in Asian Drylands.

2014 **Social Science Outstanding Researcher Award,** British Science Association

2014 **European Union Cooperation in Science and Technology (COST).** Short Term Research Mission. Arid Lands Restoration and Combat of Desertification: Drylands and Desert Restoration. University of Bordeaux. **British Academy**

2010-2013 **Post-Doctoral Fellowship.** The challenge of human-hazard interaction: documentation, social exposure and system resilience in the Gobi Desert, Asia.

- 2012-2013 **John Fell Fund**, Exploratory Grant, Climate Hazards in Asian Drylands,
 2011-2012 **Thesiger-Oman International Desert Fellowship**. Royal Geographical Society,
 London.
 2011 **UK-China Intergovernmental Visiting Scholar**. Chinese Academy of Social
 Science; Institute of Anthropology and Ethnology.
 2011-2014 **Leverhulme Research Grant** Grantwriter, named researcher (declined), project
 advisor, “Climatic Hazards in the Gobi Desert”.
 2006–2007 **Slawson Fellowship**, Royal Geographical Society. D.Phil research grant investigated
 pastoral environments in the Gobi Desert, Mongolia.
 2005 **Fulbright Scholarship**, U.S. Department of State. Grant project researched how
 pastoralists interact with the environment in Mongolia focusing on water and
 pasture resources and land use practices.

Teaching **Masters course teaching:**

- 2014-2021 Masters of Science: Water Science, Policy and Management, Course Tutor,
 Water and Society in the Middle East, Research Methods.
 2013 Climate Hazards and Environmental Governance in East Asia & Middle East
 2012 Environmental movements in China - drought, desertification & dust
 2011-201 **Supervision, D Phil** - “The Changing Meaning of Work, Herding and Social
 Relations in Rural Mongolia”
 2006-2008 **Undergraduate tutorials**

Related

- 2021 **Presenter, PBS series ‘Water: the molecule that made us’**. Zaatari Refugee
 Camp, Jordan; Wadi Rum, Jordan; Gaza, Palestine/Israel. BBC.
 2013-2021 **Vice Chair**, Commission for Nomadic Peoples, IUAES.
 2012-2013 **Associate Editor**, *Nomadic Peoples* journal, Commission for Nomadic Peoples.
 2010-2013 **Project Coordinator**, Ford Foundation grant. Responsible for organization,
 editing and presentation of three special issues of the journal *Nomadic
 Peoples* that feature new authors from China, India and Africa.

Organizer

- 2021, Sept. **Desert, Drylands & Fire Ecology Workshop**, Oxford University, ISCTE-IUL
 University, Lisbon. Portugal. 22-25 September.
 2021, July **5th Oxford Interdisciplinary Desert Conference**, Oxford University.
 2018, April **Oxford University – Kazakh National University Desert Conference**.
 Kazakh National – Al Farabi University, Almaty, Kazakhstan.
 2017, June **4th Oxford Interdisciplinary Desert Conference**, Oxford University.
3rd Oxford Interdisciplinary Desert Conference, Oxford University.
 2012, March **2nd Oxford Interdisciplinary Desert Conference; *Progress and Integration in
 Desert Research***, School of Geography, Oxford University.
 2010, April **1st Oxford Interdisciplinary Desert Conference *Integrating Research,
 Expanding Knowledge***. School of Geography, Oxford University.
 2010 - 2013 **Oxford Hazards Forum**. Ongoing seminar series featuring speakers and
 coordination of hazard-related research across the university
 2015, May **Social Science Night at the Ashmolean Museum**. Mongolian exhibit.
 2013, August **Royal Geographical Society, *Climate & Hazards – livelihoods, governance and
 change*** – 2 sessions. August 29. London, UK.
 2013, April **American Association of Geography, *Landscape and Policy Transition in Inner
 Asia***. April, 2013. Los Angeles, USA.
 2013, June **National University of Mongolia. *Climate Hazards in the Gobi Desert***. Ulaan
 Bataar, Mongolia.
 2012, February **Thesiger’s Deserts: Photography in the Pitt Rivers Collection**. Pitt Rivers
 Museum, Oxford, UK.

- 2012, March **T. E. Lawrence's Oxford.** In cooperation with the Bodleian Library and the Ashmolean Museum, University of Oxford, Oxford, UK
- 2011, April **American Association of Geography**, *Desert environments: politics, ecology and nature*. April, 2011. Seattle, USA.
- 2008, April **United Nations Permanent Forum on Indigenous Issues**. Nomadic pastoralist participation and event, , New York.
- 2008, October **World Conservation Congress**. Mobile Indigenous Peoples event. International Union for Conservation of Nature. Barcelona, Spain.
- 2008, October **Social science research methods for Chinese physical scientists**. Director/instructor, in-situ training, European Union's 'Range enclosure on the Tibetan Plateau of China', St Cross College, Oxford.

International Partnerships and Research

ISCTE-IUL University, Lisbon, Portugal. Co-Investigator, 'Mystical Nature: religious-environmental dynamics among dryland communities. 2021-2024.

University of Central Asia; Aga Khan Development Network. Bishkek, Kyrgyzstan. Ongoing. Kazakh National University, Almaty, Kazakhstan. Ongoing.

Japanese Society for the Promotion of Science, Nagoya University. 4D's - drought, dzud, desertification and dust in Mongolia. 2013-2017.

Chinese Academy of Sciences, Institute of Geography. 2012-2014. Chinese funding (\$500,000 awarded) for joint climate and hazard research.

Mongolian National University. UNESCO Remote Sensing lab. Ongoing.

Mongolian Academy of Science, Institute of Geography. 2005-2019.

Invited (funded) Talks

- Keynote, University of Central Asia & International Security and Development Center. February, 2020.
- Centre for International Studies, ISCTE, Institute University Lisbon, Portugal. November 2019.
- GCRF Compass Project, Tajik National University, Tajikistan. September 2019
- Rakuno Gauken University, Hokkaido, Japan, November, 2017
- Climate and environmental change, Nagoya University, Japan, October, 2017
- Mountain Research Institute – University of Central Asia, Dushanbe, Tajikistan, October, 2017
- University of Central Asia, Bishkek, Kyrgyzstan, April 2017
- Zhetysay State University, Taldykorgan, Kazakhstan, October 2017
- Eurasian National University, Astana, Kazakhstan, August, 2015
- Invited Talk, Dzud in Mongolia, Ulaan Bataar, Mongolia. March, 2015.
- Keynote Talk, 4D's - drought, dzud, desertification and dust in Mongolia, Nagoya, Japan, October, 2014.
- Keynote Talk, Society for Range Management, Orlando, US, February, 2014.
- International Union of Anthropology & Ethnological Sciences (IUAES) 18th Congress. Manchester, UK. July, 2013.
- Climate Change and Smallholders, North-South Project, Ethiopia, March 2013.
- Keynote Talk, Japan Geographical Association. Kobe, Japan. October, 2012.
- University of Bordeaux (Physics). Bordeaux, France. November, 2012.
- Hazard Risk Science Symposia. Beijing, China. September, 2012.
- Ford Foundation, Writing Workshop, Nairobi, Kenya, February, 2012.
- Disaster Risk Science Forum. Beijing, China. August, 2010.
- Vulnerability in Asian Landscapes, Global Land Project. Beijing, China. June, 2009.
- International Union of Anthropology & Ethnological Sciences (IUAES) 17th Congress. Kunming, China. July, 2009.
- International Grasslands VIIth Conference. Hohhot, China. July, 2008.
- Mongolia in Transition Symposium. Vancouver, Canada. November, 2008.
- 800th Anniversary of Mongolian Statehood. Ulaan Baatar, Mongolia. June, 2006.

Additional talks

Conferences: Royal Geography Society 2008, 2010, 2014; American Association of Geography 2011, 2013; Mongolian Plateau Environment 2007, 2012; IUAES 2013.

Official Entities: Mongolian Plenary, Mongolia Academy of Sciences, Chinese Academy of Sciences, Chinese Academy of Social Sciences, Oman Meteorological Administration

Universities: Mongolian National, Mongolian Science and Technology: Berne, Switzerland; Nagoya, Tottori, Kyoto, Japan; Lanzhou, China Agricultural, China Forestry, Hunan Science and Technology, China Central South, NW Qinghai Botany, China Minorities, China; Sultan Qaboos University, Oman; Delhi, Jawaharlal Nehru, TERI – India. British Columbia, Canada; George Mason, US; Eurasian National University, Al-Farabi Kazakh National University, Kazakhstan; American University of Central Asia, Kyrgyzstan.

Publications:

Sternberg, T., Toktomushev, K. and Ichinkhorloo, B., (editors). 2021. Mining Lifecycles in Mongolia and Kyrgyzstan. Routledge, Abingdon.

Sternberg, T., et al. 2021. Covid-19 Resilience In Mongolian Pastoralist Communities. *Nomadic Peoples*. 25 :1.

Sternberg, T. 2021. Mongolian herders face Covid-19 with traditional calm. *British Medical Journal*. blogs.bmj.com/bmj/2021/04/29/mongolian-pastoralists-face-covid-19-with-traditional-calm/

Sternberg, T., McCarthy, C. and Hoshino, B., 2020. Does China's Belt and Road Initiative Threaten Food Security in Central Asia? *Water*, 12(10), p.2690.

Sternberg, T., 2020. Conflict and contestation in Kyrgyz mining infrastructure. *The Extractive Industries and Society*, 7(4), pp.1392-1400.

Sternberg, T., et al. 2019. From conflict to a Community Development Agreement: a South Gobi Solution. *Community Development Journal*.

Sternberg, T., 2018. Moderating Climate Hazard Risk through Cooperation in Asian Drylands. *Land*, 7(1), p.22.

Holguín, L.R. and **Sternberg, T.**, 2018. A GIS based approach to Holocene hydrology and social connectivity in the Gobi Desert, Mongolia. *Archaeological Research in Asia*, 15, pp.137-145.

Sternberg, T., Edwards, M. 2017. Desert Dust and Health: A Central Asian Review and Steppe Case Study. *International journal of environmental research and public health*, 14(11), p.1342.

Sternberg, T., Ahearn, A. and McConnell, F., 2017. Central Asian 'Characteristics' on China's New Silk Road: The Role of Landscape and the Politics of Infrastructure. *Land*, 6(3).

Sternberg, T. 2017. Investigating the presumed causal links between drought and dzud in Mongolia. *Natural Hazards*.

Sternberg, T., Ahearn, A. . Arid Lands and Deserts in Mongolia: new research perspectives. *In Sustainable Future of Life in the Desert*. UNESCO, Mexico City.

Sternberg, T. 2017. China's natural and constructed hazard regimes. *In: Climate Hazard Crises in Asian Societies and Environments*. Sternberg, T. (ed). Routledge Publishers, Abingdon.

Sternberg, T. 2017. Climate hazards in Asian drylands. *In: Climate Hazard Crises in Asian Societies and Environments*. Sternberg, T. (ed). Routledge Publishers, Abingdon.

Sternberg, T., Werrell, C., Femia, F. 2017. Climate Hazards, Security and the Arab Uprisings. *In: Lost in Translation: Forgotten Approaches of the Arab Spring*. Bouasria, A. and Rabi, U. (eds). Sussex Publishing, UK.

Sternberg, T. et al. 2017. Multidisciplinary team and independent expert panel joint fact finding report. *Compliance Advisor Ombudsman*, International Finance Corporation, World Bank. www.cao-ombudsman.org/documents/MDT_IEP_FINALREPORT_ENG.pdf

Sternberg, T., Mayaud, J. *in review*. Herd it in the Gobi : human-environment complexity in Mongolia.

- Sternberg, T.**, Chatty, D. 2016. Marginality, climate and resource extraction in pastoral rangelands : Oman and Mongolia. *Rangelands*, 38:145-151.
- Fang, X., Zou, B., Liu, X., **Sternberg, T.**, Zhai, L., 2016. Satellite-based ground PM 2.5 estimation using timely structure adaptive modeling. *Remote Sensing of Environment*, 186, pp.152-163.
- Zou, B., Xu, S., **Sternberg, T.** Fang, X., 2016. Effect of land use and cover change on air quality in urban sprawl. *Sustainability*, 8(7), p.677.
- Fang, X., Zou, B., Liu, X., **Sternberg, T.** Zhai, L., 2016. Satellite-based ground PM 2.5 estimation using timely structure adaptive modeling. *Remote Sensing of Environment*, 186, pp.152-163.
- Sternberg, T.**, Paillou, P. 2015. Mapping potential shallow groundwater in the Gobi Desert using remote sensing: Lake Ulaan Nuur. *Journal of Arid Environments*, 118: 21-27.
- Sternberg, T.**, Rueff, H., Middleton, N. 2015. Contraction of the Gobi 2000-2012. *Remote Sensing*, 7, 1346-135.
- Sternberg, T.** 2015. Water mega-projects in deserts and drylands. *International Journal of Water Resources Development*. DOI: .1080/07900627.2015.1012660
- Zou, B., Luo, Y., Wan, N., Zheng, Z., **Sternberg, T.** and Liao, Y., 2015. Performance comparison of LUR and OK in PM2. 5 concentration mapping: a multidimensional perspective. *Scientific Reports*, 5.
- Sternberg, T.** 2014. Desert Boundaries: the once and future Gobi. *Geographical Journal*.
- Sternberg, T.** 2014. Transboundary hazard risk: the Gobi Desert paradigm. *Natural Hazards*. 1-16.
- Sternberg, T.** 2014. Drought and extreme climate stress on human-environment systems in the Gobi Desert, Mongolia. *in Vulnerability of Land Systems in Asia*. John Wiley & Sons, Chichester.
- Sternberg, T.** 2014. Hazard-human interaction in the Gobi Desert. *British Academy Review*. 24: 68-71.
- Middleton, N., Rueff, H., **Sternberg, T.**, Batbuyan, B. 2014. Explaining spatial variations in climate hazard impacts in western Mongolia. *Landscape Ecology* 30: 91-107.
- Sternberg, T.**, Batbuyan, B. 2013. Integrating the Hyogo Framework into Mongolia's disaster (DRR) policy. *International Journal of Disaster Risk Reduction*. //dx.doi.org/
- Middleton, N., **Sternberg, T.** 2013. Climate Hazards in Deserts: A Review. *Earth Science Reviews*. 126: 48-57.
- Sternberg, T.** 2013. Tradition and transition in the Mongolia pastoral environment. *In: Modern Pastoralism and Conservation: Old Problems, New Challenges*. Sternberg, T., Chatty, D (Eds.) White Horse Press, Cambridge.
- Sternberg, T.** 2012. China's drought, bread and the Arab Spring. *Applied Geography*. 34: 519–524.
- Sternberg, T.** 2012. Piospheres and Pastoralists: vegetation and degradation in steppe grasslands. *Human Ecology*. 40: 811-820.
- Sternberg, T.** 2012. Pastoral mosaic: livelihood, mobility, differentiation, and environmental engagement on the Inner Asian steppe. *In: Change in Democratic Mongolia: social relations, health, mobile pastoralism and mining*. Brill, Boston.
- Wan, N., Zou, B., **Sternberg, T.** 2012. A three-step floating catchment area method for analyzing spatial access to health services. *International Journal of Geographical Information Science*, 26: 1073-1089.
- Sternberg, T.** 2012. Hazard impact on desert environments. *In: Changing Deserts: Integrating People and their Environment*. Sternberg, T, Mol, L. (eds). Whitehorse Press, Cambridge.
- Sternberg, T.** 2011. Regional drought has a global impact (Correspondence). *Nature*. 472: 169.
- Sternberg, T.**, Thomas, D., Middleton, N. 2011. Drought dynamics on the Mongolian Steppe 1970-2006. *International Journal of Climatology*. 31:1823–1830.
- Viles, H., **Sternberg, T.** Cathersides, A. 2011. Is ivy good or bad for historic walls? *Journal of Architectural Science*. 17: 25-42.

- Sternberg, T.** 2010. Unravelling Mongolia's extreme winter disaster of 2010. *Nomadic Peoples*. 14: 72-86.
- Sternberg, T.,** Viles, H., Cathersides, A. 2010. Evaluating the role of ivy (*Hedera helix*) in moderating wall surface microclimates and contributing to the bioprotection of historic buildings. *Building and Environment*. 46: 293–297.
- Sternberg, T.,** Viles, H. 2010. Dust particulate absorption by ivy (*Hedera helix* L) on historic walls in urban environments. *Science of the Total Environment*. 409: 162-168.
- Sternberg, T.,** Tsolmon, R., Middleton, N., Thomas, D. 2010. Tracking desertification on the Mongolian Steppe through NDVI and field-survey data. *International Journal of Digital Earth*. 3:1-15.
- Sternberg, T.,** Middleton, N., Thomas, D. 2009. Pressurized pastoralism in South Gobi Province, Mongolia: What is the role of drought? *Transactions of British Geographers - IBG*. 34: 364-377.
- Sternberg, T.,** Chatty, D. 2008. Mobile indigenous peoples. *Forced Migration Review*. 31:25-26.
- Sternberg, T.** 2008. Environmental challenges in Mongolia's dryland pastoral landscape. *Journal of Arid Environments*. 72: 1294-1304.
- Tsolmon, R., Ochirkhuyag, L., **Sternberg, T.** 2008. Monitoring the source of trans-national dust storms in northeast Asia. *International Journal of Digital Earth*. 1: 119-129.
- Sternberg, T.,** Perry, G. and Britton, C., 2006. Grass repellency to the red imported fire ant. *Rangeland ecology & management*, 59(3), pp.330-333.

Books:

- Sternberg, T.,** Toktomushev, K. and Ichinkhorloo, B., (editors). 2021. *Mining Lifecycles in Mongolia and Kyrgyzstan: Political, Social, Environmental and Cultural Contexts*. Routledge, Abingdon.
- Sternberg, T.** 2019. *Arid Land Systems and Societies*. MDPI Publishing, Basel.
- Sternberg, T.** 2017. *Climate Hazard Crises in Asia*. Routledge Publishers, Abingdon.
- Sternberg, T.,** Chatty, D. 2013. *Modern Pastoralism and Conservation: Old Problems, New Challenges*. White Horse Press, Cambridge.
- Ahearn, A., **Sternberg, T.** *Pastoral Livelihoods in Asian Drylands: environment, governance, and risk*. White Horse Press, Cambridge.
- Sternberg, T.,** Chatty, D. 2013. *Modern Pastoralism and Conservation: Old Problems, New Challenges*. White Horse Press, Cambridge.
- Mol, L., **Sternberg, T.** 2012. *Changing Deserts: Integrating People and their Environment*. Whitehorse Press, Cambridge.

General publications:

- Sternberg, T.** 2016. How have global warming and climate change promoted conflict in pastoral communities? in *Natural Resources and Conflicts*, ABC-CLIO Publishing, Santa Barbara.
- Sternberg, T.** 2016. How have global warming and climate change promoted conflict in Syrian pastoral communities? in *Natural Resources and Conflicts*, ABC-CLIO Publishing, US.
- Sternberg, T.** 2015. Desertification: the environment gone pear-shaped? www.water.ox.ac.uk/desertification-the-environment-gone-pear-shaped/
- Chatty, D., **Sternberg, T.** 2015. Climate-driven migration in pastoral societies: Oman and Mongolia. *Forced Migration Review*.
- Sternberg, T.** 2014. China and Mongolia clash over how to exploit the Gobi desert. *The Conversation*. theconversation.com/china-and-mongolia-clash-over-how-to-exploit-the-gobi-desert-26722
- Sternberg, T.** 2013. Chinese Drought, Wheat, and the Egyptian Uprising: How a Localized Hazard Became Globalized in *The Arab Spring and Climate Change*. www.americanprogress.org

Sternberg, T., Werrell, C., Femia, F. 2013. Inner Mongolia: Coal Heaven, Water Hell. *In Water-Energy Nexus Challenges in China - China Environment Series*. Woodrow Wilson Center, Washington D.C.

Sternberg, T., Rueff, H. 2013. Closing down the grasslands' in China's Gobi desert. *Desert Net International*, 3: 3.

Memberships

Fellow, Royal Geographical Society

Commission for Nomadic Peoples, International Union of Anthropological-Ethnological Sciences

Worcester College, Oxford

Language

English (native), Spanish - conversational skills
